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ART AND CULTURE

1. Bhojshala Complex

Context:

- The Archaeological Survey of India (ASI) stated in its scientific survey report that the existing structure at the Bhojshala complex was constructed using remains of an earlier temple.

About Bhojshala Complex



Source: Hindujagruti

- Location:** The Bhojshala Complex is located in the Dhar district of Madhya Pradesh.
- Historical Significance:**
 - It was built in 1034 AD by Raja Bhoja (1000-1055 A.D.) who was the greatest monarch of the Paramara dynasty.
 - It served as a university where students came to learn music, Sanskrit, astronomy, yoga, Ayurveda, and philosophy.
 - The complex was first attacked by Alauddin Khilji in 1305 AD. In 1514 AD, Mehmudshah Khilji II attacked the complex and tried to convert it into a dargah. He encroached on land outside the Saraswati Temple and built the 'Kamal Moulana' Makbara.
- Inscriptions:**
 - Two hymns written in Prakrit, related to the Karmavatar (crocodile incarnation of Vishnu), are engraved in the rocks of the complex.
 - One inscription contains the Sanskrit alphabet and the main endings of nouns and verbs. Another inscription contains

the individual declensions of the ten tenses and moods of Sanskrit grammar.

Legal Protection

In 1951, the complex was declared a monument of national importance under the Ancient and Historical Monument and Archaeological Sites and Remains (Declaration of National Importance) Act, 1951.

It is currently protected by the ASI under the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

UPSC Prelims point: Bhojshala Complex

2. National Mission for Cultural Mapping

Context:

The Government of India under the Ministry of Culture has initiated the National Mission on Cultural Mapping (NMCM).

About National Mission for Cultural Mapping

<i>Aspects</i>	<i>Description</i>
About	i) The National Mission for Cultural Mapping was launched in 2017. ii) It was initiated by the Union Ministry of Culture.
Aim	The mission aims to develop a comprehensive database of art forms, artists, and other cultural resources across India.
Village Documentation and Categories	i) The government has identified and documented distinctive features of over one lakh villages across the country. ii) Villages are broadly divided into seven to

	eight categories based on mythological, ecological, developmental, and scholastic importance.
Budget	In 2017, the Culture Ministry approved a budget of ₹469 crores for the mission, intended to be used over a period of three years.
Field Surveys	Detailed field surveys were conducted by joint teams from the Culture Ministry and the Common Services Centres (CSC), which operate under the Ministry of Electronics and Information Technology.

- UPSC Prelims point: National Mission on Cultural Mapping (NMCM)

3. Vishnupad and Mahabodhi Temples

Context:

- Recently, the finance minister announced during her Union Budget speech that corridor projects will be built for the Vishnupad Temple in Gaya and the Mahabodhi Temple in Bodh Gaya, both located in Bihar.
- **About Vishnupad Temple**



- Location: The Vishnupad Temple is situated in Bihar, on the banks of the Falgu River. It is dedicated to Lord Vishnu.

- The temple was built in 1787 on the orders of Queen Ahilyabai Holkar of Ahmadnagar.

- Architecturally, the temple is around 100 feet tall and has 44 pillars.

- **Cultural Significance:** Devotees visit the temple during Pitra Paksh, a period in the Hindu calendar when people take part in rituals to remember their ancestors.

- About Mahabodhi Temple

- Location: The Mahabodhi Temple is located in Bodh Gaya, central Bihar, on the banks of the Niranjana River.

- **Historical Background:**

- The temple stands to the east of the Mahabodhi Tree, where Gautam Buddha is believed to have attained nirvana.

- The Mahabodhi Temple Complex was first built by Emperor Asoka in the 3rd century B.C. The present temple dates back to the 5th–6th centuries.

- **Architecture:**

- The temple has a unique shape and a height of 170 feet.

- It is one of the earliest Buddhist temples built entirely in brick from the late Gupta period.

- This temple is considered to have had significant influence on the development of brick architecture over the centuries.

- The Mahabodhi Temple was recognized as a UNESCO World Heritage Site in 2002.

- UPSC Prelims point: UNESCO World Heritage Sites

4. National Mission for Manuscripts

Context:

The National Mission for Manuscripts aims to document, conserve, digitize, and disseminate India's manuscript heritage.

- About National Mission for Manuscripts

- The National Mission for Manuscripts (NMM) is an autonomous body under the Culture Ministry.
- It was launched in 2003.
- NMM's mandate includes identifying, documenting, conserving, and making accessible India's manuscript heritage.
- The manuscripts encompass a variety of themes, textures, aesthetics, scripts, languages, calligraphies, illuminations, and illustrations.
- NMM's motto is 'conserving the past for the future'.
- Approximately 75% of existing manuscripts are in Sanskrit, while 25% are in regional languages.
- NMM has digitised 3.3 lakh manuscripts, containing about 3.1 crore folios. Over 1.18 lakh manuscripts have been uploaded, but only about 70,000 are available online for public access.
- The mission has documented approximately 5.2 million manuscripts across India. The mission has conserved 90 million folios of manuscripts. The mission has digitized 3.5 lakh manuscripts, amounting to 3.5 crore pages.
- The mission has uploaded 1.4 lakh manuscripts on its web portal, out of which 75,000 manuscripts are available online for free access to researchers and the public. The mission has conducted over 100 conservation workshops.
- The mission has published more than 100 books since its inception, with the list of these publications available in Annexure-I. The mission has established over 100 Manuscripts Resource Centres and Manuscripts Conservation Centres across India.
- UPSC Prelims point: National Mission on Manuscript

5. Sangameswara Temple

Context:

- The Sangameswara Temple has recently submerged in the backwaters of the Srisailem project in Nandyal district following heavy inflow from the Krishna River.
- About Sangameswara Temple
- Location: It is situated in Nandyal district, Andhra Pradesh. It is positioned on the banks of the Krishna River.
- **Historical Significance:**
- It is dedicated to Lord Shiva. It was originally built in 740 AD by Chalukya ruler Pulakesi
- Initially located at the confluence of the Tungabhadra and Krishna Rivers, 10 km from its current site.
- The temple was dismantled and reassembled rock-by-rock at its present location in 1979 due to submergence caused by the Srisailem Dam construction.
- **Features:**
- Architectural Style: It is built in the Nagara style. It has elevated platform with a fortified wall surrounding the temple.
- Structure: It has a large hall supported by 12 pillars leading to the sanctum. It has also a circumambulatory path around the sanctum for performing pradakshinas (ritual circumambulation). The ceiling features a large relief of Nagaraja, characteristic of Chalukya temples.
- Pillars in the hall are adorned with intricate engravings of Lord Vishnu, Brahma, Kumaraswamy, and celestial couples. Each corner of the temple features carvings of crocodiles.

UPSC Prelims point: Sangameswara temple

6. Benefits of Making it to the UNESCO World Heritage List

• Context:

- Recently, the Charaideo Moidams, an ancient mound-burial system from the Ahom dynasty in Assam, has been recognized as a UNESCO World Heritage Site.
- This 700-year-old site, added on Friday, is now the 43rd property from India to be included in this esteemed list.
- Benefits of Making it to the UNESCO World Heritage List
- Global Recognition and Prestige:
- Achieving World Heritage status brings international attention and respect, showcasing the region's unique and significant cultural heritage.
- The recognition elevates the status of the site, aligning it with other globally renowned heritage sites.
- **Tourism Boost:**
- World Heritage status typically leads to increased tourism, attracting visitors from around the world.
- Enhanced tourism can stimulate local economies, providing new opportunities for businesses, jobs, and infrastructure development.
- **Cultural Preservation:**
- Being listed encourages efforts to preserve and protect the site, ensuring its cultural and historical integrity for future generations.
- It often leads to increased funding and resources dedicated to the conservation and maintenance of the site.
- **Educational and Research Opportunities:**
- The site becomes a focal point for educational programs and research, attracting scholars, historians, and archaeologists.
- It provides a rich resource for academic studies and can promote awareness and

understanding of the region's cultural heritage.

Community Pride and Identity:

- Local communities often experience a sense of pride and enhanced identity from having a World Heritage site. It fosters a connection to their heritage and can enhance cultural traditions and practices.

Sustainable Development:

- World Heritage status encourages sustainable tourism and development practices, ensuring that the economic benefits do not come at the expense of the site's preservation. It promotes balanced and responsible management of natural and cultural resources.

International Cooperation:

- Being part of the World Heritage community facilitates international cooperation and exchange of best practices in conservation and management.
- It can lead to partnerships and collaborations with other World Heritage sites and global heritage organizations.
- **Funding and Grants:**
- UNESCO listing can open doors to various funding opportunities and grants for conservation, research, and tourism development. It ensures long-term financial support for the upkeep and promotion of the site.
- UPSC Prelims point: UNESCO World heritage sites

7. Cultural Property Agreement

Context:

- The Cultural Property Agreement was signed on 26th July 2024 at Bharat Mandapam, New Delhi between India and the United States of America.
- About the agreement



PIB

- This agreement is signed between India and U.S.A.
- The objective of the agreement is to prevent and curb the illicit trafficking of antiquities between India and the USA.
- The agreement aligns with the 1970 UNESCO Convention on the Means of Prohibiting and Preventing the Illicit Import, Export, and Transfer of Ownership of Cultural Property.
- The agreement restricts the importation into the USA of certain archaeological and ethnological materials.
- The Designated List includes items ranging from 1.7 million years ago to 1947 CE. The USA will return any forfeited objects on the Designated List to India.
- **Significance:** The agreement is seen as a significant step towards preserving India's rich cultural heritage and historical artifacts. Preservation and protection of cultural heritage have become integral to India's foreign policy, particularly under Prime Minister Shri Narendra Modi's leadership.
 - **G20 Presidency and Global Cooperation:** Under India's G20 Presidency, the protection and promotion of cultural property emerged as a main priority. The Kashi Culture Pathway, endorsed by the G20 Culture Working Group emphasizes strengthened global

efforts to fight the illicit trafficking of cultural property.

- **Benefits:**

- The agreement enhances cultural diplomacy and sustainable development. Repatriation of artifacts promotes tourism, stimulates local economies, and fosters cultural stewardship. Leveraging cultural assets for educational enrichment, social cohesion, and economic empowerment promotes inclusive development.

- **UPSC Prelims point: Cultural Property Agreement**

- Chhattisgarh's Baloda Bazar district torched dozens of vehicles, pelted stones at police personnel, and set fire to the Superintendent of Police office building. The protesters, dissatisfied with the police's handling of a case involving the desecration of a sacred 'Jaitkhamb', demanded a CBI probe.

About Satnamis Community

The term "Satnamis" means those who believe in a God whose name is 'truth'.

The Satnamis are a predominant group within the 11% Scheduled Caste (SC) population in Chhattisgarh, believed to be an offshoot of the Ravidassia community.

The community was founded on April 21, 1657, by Bir Bhan in Narnaul, Haryana. Udhodas who was a disciple of Saint Ravidas was the first priest or spiritual guru of the community.

The Satnamis inhabit the plains of central Chhattisgarh, mainly in the old districts of Bilaspur, Durg, Rajnandgaon, and Raipur.

Principles and Influence: The Satnamis emphasize three main principles:

Adorning the attire of a Satnami devotee

Earning money through proper means

Not tolerating any injustice or oppression in any form

The community is believed to exert political influence by voting collectively, and representatives occupy most of the 10 assembly segments allotted for SCs.

The community reveres Mini Mata, the first female Member of Parliament from Chhattisgarh, who entered the Lok Sabha by winning the 1955 by-election. Political parties often invoke her legacy to appeal to the Satnamis for votes.

About Satnami Revolt of 1672

The Satnami revolt occurred during the reign of Mughal Emperor Aurangzeb, in today's Mahendragarh district of Haryana.

Cause: The revolt began when a Mughal soldier killed a Satnami, leading about 5,000 Satnamis to take up arms.

The Satnamis routed the Mughal troops, drove away the administrators, and set up their own administration.

The revolt gained support from Hindus in Agra and Ajmer, who were discontent with Aurangzeb's strict Islamic policies, including the revival of the Jizya tax, banning of music and art, and destruction of Hindu temples.

Aurangzeb took personal command and sent troops with artillery to suppress the revolt, resulting in an attempt to annihilate the Satnamis. The remnants fled and remained disorganized and leaderless for a long time.

About New Movement

- The most significant Satnami group was founded in 1820 in the Chhattisgarh region by Saint Ghasidas, a farm servant and member of the lower (Chamar) caste.
- Saint Ghasidas established the Satnam Panth ("Sect of the True Name"), providing a religious and social identity for many Satnamis.
 - He preached a code of ethical and dietary self-restraint and social equality,

and authored Nirvan Gyan to propagate his teachings.

- Throughout history, Satnamis have navigated their position within a larger Hindu hierarchy.

INDIAN POLITY, POLICY AND INTERNAL SECURITY

1.SC Verdict on Citizenship Case.

Context: The Supreme Court has declared Md Rahim Ali, an Assam resident, a citizen of India, overturning a Foreigners' Tribunal's decision. It has clarified the law on foreign nationality allegations and the individual's burden of proof.

- In 2004, a case was filed against Ali for not providing citizenship documents. The Foreigners' Tribunal (FT) first declared him a foreigner without his presence, a decision the High Court upheld. The Supreme Court then ordered the FT to re-examine the documents, but the FT again ruled Ali a foreigner, stating that he entered illegally after March 25, 1971.

The clarifications given by the Supreme Court in recent judgement:

Burden of Proof-Section 9 of The Foreigners Act, 1946, places the burden of proof on the person accused of being a foreigner. However, the Supreme Court questioned whether this allows the authorities to randomly suspect someone without evidence and rely solely on Section 9.

State Responsibility -The Supreme Court clarified that while the burden of proof is on the accused, the state must first provide evidence for the allegations. Without sufficient material from the state, initiating such serious proceedings is unjust.

Minor Spelling Variations -The Court noted that minor spelling variations in names should not lead to dire consequences, highlighting that such errors are common in electoral rolls.

Proof Standards in Court Cases -The court cited the five-judge ruling in Mukesh Singh vs State (2020), emphasizing that even with a reverse burden of proof, the prosecution must

first fulfill its initial obligation. In **Noor Aga vs State of Punjab (2008)**, it was established that the prosecution must prove basic facts, and more serious offenses require a higher standard of proof.

Foreign Tribunals:

- **Tribunals Under Colonial Law-** These were created under The Foreigners Act, a colonial law established before the Indian Constitution, to address issues related to foreigners. They were set up in 1964 by an executive order from the Home Ministry.

Definition of "Foreigner" -Under Section 2(a) of the 1946 Act, a "foreigner" is defined as anyone who is not a citizen of India. This applies only to those with strong evidence of foreign status, such as being caught entering India or holding a foreign passport.

The issues with foreign tribunals:

- **Legitimacy of Tribunal Establishment** - They are not established under Article 323B of the Constitution, which allows tribunals to be created by law through the appropriate legislature.

- **Inadequate Investigation-About 300,000 people in Assam** were labeled as Doubtful Voters in 1997 and later by low-level officials, without any investigation or notice. They were excluded from the Assam NRC and now face challenges in Foreigners' Tribunals.

- **Lack of Transparency in Accusations - Paragraph 3(1) of the Foreigners' Tribunal Order of 1964** requires that notices state the "main grounds" for accusations. However, Foreigners' Tribunals often do not provide this information, leaving individuals to defend themselves without knowing the charges.

The implications of the recent Supreme Court Judgement:

The judgment will ease the worries of those concerned about minor spelling

errors or date discrepancies in their names and their parents' names due to the **Citizenship (Amendment) Act, 2019**, and the proposed **National Register of Citizens (NRC)**.

By March 2019, 1.17 lakh people had been declared foreigners, including 63,959 ex parte cases. This judgement may positively impact thousands of pending cases with the Foreigners' Tribunals.

Note- Ex parte cases- It refers to legal proceedings or decisions made by a court in the absence of one party. This means that only one side (usually the plaintiff) is present or has submitted information, leading to decisions without hearing from the other side.

Mains Point: The Supreme Court provided in its recent judgment? What are the implications of this judgment?

2. Rules and Regulations Governing Civil Servants in India.

Context: The Centre set up a single-member committee under the Department of Personnel and Training (DoPT) to review all documents submitted by probationary IAS officer Puja Khedkar regarding her civil service candidacy. She was allotted IAS under the Other Backward Classes (OBC) and Physically Handicapped (PH) quotas.



The rules governing civil servants in India:

The All-India Services (Conduct) Rules, 1968:

Scope and Applicability- These rules apply to IAS, IPS, and Indian Forest

Service officers from the moment they are assigned their service and start training.

Key Provisions:

Rule 3(1): -It requires complete integrity and dedication to duty while prohibiting actions that are inappropriate for a service member.

Rule 4(1): - It prohibits officers from using their position to secure jobs for family members in private companies or NGOs and clearly defines what constitutes **"unbecoming" behavior**.

2014 Additions - It emphasizes high ethical standards, integrity, and honesty, while promoting political neutrality, accountability, and transparency. It encourages responsiveness to the public, especially vulnerable groups, and mandates courtesy and good behavior towards the public.

Rule 11(1): Officers may accept gifts from close relatives or friends with no official ties during events like weddings, anniversaries, funerals, and religious functions. However, gifts valued over Rs 25,000 must be reported to the government, a threshold updated in 2015

Decision-Making Guidelines- Decisions must be made solely in the public interest, and officers must declare any private interests related to their duties. They are prohibited from placing themselves under financial obligations and must not misuse their position for personal or family benefits.

Indian Administrative Service (Probation) Rules, 1954:

a. **Applicability-** It governs officers during their probation period, which lasts at least two years after selection and includes training at LBSNAA in Mussoorie.

Key Provisions:

• **Entitlements-** During probation, officers receive a fixed salary and travel allowance but do not have the same benefits as confirmed IAS officers, such as

an official car, accommodation, an office with staff, or a constable.

- **Rule 12: Discharge of Probationers** - These include the central government finding the probationer “ineligible for recruitment,” “unsuitable for service,” neglecting probationary duties, or lacking the necessary “qualities of mind and character.”

- **Enquiry Process-** The Centre conducts a summary inquiry before issuing discharge orders, and the committee submits its report within two weeks.

The consequences of furnishing false information:

- According to a 1993 DoPT circular, government servants who provide false information or certificates should not remain in service. This rule applies to both probationers, who are “discharged,” and confirmed officers, who are “dismissed.”
- However, dismissals can be challenged in court, the Central Administrative Tribunal (CAT), and the National OBC Commission, leading to lengthy legal battles during which the officer may remain in service.

Mains Point: Regulations apply to civil servants in India.

3. Critique of the Juvenile Justice System

Context: The article discusses how India’s Juvenile Justice system manages young offenders, emphasizing rehabilitation over punishment and the possibility of trying adolescents as adults. It highlights the need for better implementation of the system’s principles to ensure accountability and victim-centered justice.

Background:

- A teenager driving a car in Pune hit and killed two young tech workers. Initially, the **Juvenile Justice Board (JJB)** granted him bail with easy conditions. After

public pressure, they ordered him to be held in an Observation Home. The High Court, however, released him again, saying the law was followed properly.



The Law Say About Juveniles Committing Serious Crimes:

- **The Juvenile Justice (Care and Protection of Children) Act, 2015 (JJ Act)** defines a “heinous” offense as one with a minimum punishment of seven years or more.

- Adolescents over 16 can be tried as adults for heinous offenses.

- The example in Pune involved a teen who caused deaths by negligent driving, which is not classified as “heinous” because it lacks a minimum prescribed punishment.

- Such offenses are termed “serious” because they have a maximum punishment of over seven years but no minimum sentence, thus not qualifying for trial in an adult court under the JJ Act.

Innovative Ways to Hold Juveniles Accountable:

- Victim impact panels (VIPs) are used in the U.S., where offenders meet with the victims’ families to understand the impact of their actions.

- A 2022 study by Kevin Thompson and Sarah Joyce showed that VIPs in North Dakota significantly reduced recidivism among offenders.

- These panels allow victims to express their grief and offenders to offer apologies, aiding in rehabilitation.

- This method emphasizes personal accountability and the healing of both victims and offenders.

- It shifts from traditional punitive approaches to a more restorative justice model, focusing on community and victim involvement in the justice process.

The Critique of the Juvenile Justice System:

- The juvenile justice system is often criticized for its poor implementation rather than its intent or structure.
- Critics argue that the system sometimes fails to fully apply its foundational principles, focusing inadequately on rehabilitation and accountability.
- Trying juveniles as adults is seen as a shortcut that bypasses the core issues of systemic inefficiency.
- The public outcry and legal challenges in the Pune case exemplify concerns over perceived leniency and inconsistency in handling serious offenses by juveniles.
- This critique underscores the need for a more robust and consistently applied juvenile justice system that truly balances the goals of rehabilitation and public safety.

Mains point: The challenges and controversies surrounding the treatment of juveniles who commit serious offenses under India's Juvenile Justice system.

4. Impact of schemes on social ties

Context: Recently, news from Maharajganj district, Uttar Pradesh, reported that eleven married women allegedly eloped with their lovers after receiving ₹40,000 from the government's Pradhan Mantri Awas Yojana (PMAY) cash-for-housing scheme.

National Family Health Survey (NFHS)



- **The National Family Health Survey** shows that only 13% of women aged 15-49 own a house independently, and 29% have joint ownership. To address gender gaps in asset ownership, government programs encourage women to be primary beneficiaries of welfare schemes.

The economic autonomy ensure personal freedom for women:

Empowering Women Through Cash Transfers -Feminist scholars and activists emphasize that government cash transfers to women can boost their intra-household bargaining power. Such transfers may enable women to leave unhappy or abusive marriages. The recent incident shows that romantic independence is often supported by financial independence.

Research Findings: Research over 15 years shows that most Indian women see economic independence as essential for their emotional and sexual freedom.

The issues exist in how current policies perceive marginalized communities:

Women as Passive Recipients -It views women as merely passive recipients of welfare benefits or as a uniform voting bloc.

Empowerment: It overlooks women's empowerment beyond stereotypes of "good behavior" or victimhood. The incident in Maharajganj demonstrates that women can make independent choices, even when those choices challenge societal norms.

Welfare Program Evaluation- There is a lack of comprehensive approach to evaluating welfare programs that extends beyond merely measuring consumption and leakages.

Social Impact of Welfare Schemes: There is insufficient research and documentation on how safety nets affect existing power structures and interpersonal relationships.

The way forward:

- **Inclusive Public Programs** - Public programs that support an equitable and inclusive economy can relieve families and marriages from societal pressures and discriminatory norms surrounding love
- **Qualitative Research** -There is a need for more qualitative research on how welfare programs like MGNREGA and self-help groups affect labor power and community dynamics.
- **Beneficiaries as Individuals with Aspirations** -It's important to see beneficiaries as real people with hopes for love, joy, and purpose, rather than just data points used for tracking votes or program participation.

Mains point: The problems with how current policies perceive marginalized communities.

5. Surge in terror attacks in Jammu

Context: It has been observed that there has been a surge in terror attacks in Jammu. The rise in attacks highlights gaps in the security infrastructure in regions like Doda, Poonch, and Rajouri, which had seen peace for many years.

Recent Attack Statistics:

- **2022:** Three attacks, six security force personnel killed, 14 militants killed, 11



civilians killed.

2023: Three attacks, 21 security force personnel killed, 20 militants killed.

2024: Six attacks so far, 11 security force personnel killed, five militants killed, 11 civilians killed.

Factors Contributing to the Surge:

1. Complacency and Reduced Proactive Operations:

i) Prolonged peace and a more active focus on the Valley may have led to complacency in counter-insurgency efforts in Jammu.

ii) Reduction in proactive operations due to lower alertness compared to the Valley.

2. Troop Reduction and Increased Responsibility:

i) Troop reduction in 2021, with forces moved to the Line of Actual Control, increased the area of responsibility for each battalion.

ii) Approximately 4,000 to 5,000 troops, mostly involved in counter-terror duties, were moved out of the area.

3. Attacks Near International Border:

i) Recent attacks in the **Kathua-Samba region** indicate a trend of targeting areas close to the International Border.

ii) These areas fall under the Army Western Command, which does not engage in counter-terror operations, requiring additional troops who need training and familiarization.

4. Strategic Shift by Militants:

i) Jammu has become a new focal point for militant operations against security forces, following changes to J&K's constitutional status in 2019 and increased activity in Eastern Ladakh.

ii) Infiltration along the International Border is easier than the Line of Control, with Jaish-e-Mohammad and Lashkar-e-Taiba cadres leading attacks.

5. Deployment Patterns and Intelligence Gaps:

i) Deployment patterns changed after militancy ebbed in 2007, leading to thin deployments and gaps in intelligence.

ii) Effective border management is crucial to handle increased militant activity and to prevent regrouping of militants in Kashmir.

6. Technology Dependence and Reduced Ground Intelligence:

i) Increased reliance on technology has reduced the ground-level connection, impacting operational intelligence.

ii) Efforts are needed to reorient operations towards basic counter-insurgency measures, emphasizing ground intelligence.

7. Lack of Human Intelligence:

i) The increase in terror violence is linked to a lack of human intelligence feeding security forces.

ii) Developing these networks will take time, and nearly all recent attacks in Jammu have been carried out by foreign terrorists using dense forest cover for infiltration.

8. Motivational Incentives: The centralization of police powers has delayed motivational incentives for forces, such as promotions, reducing the drive to develop human intelligence.

9. Sophisticated Equipment and Narco-Terrorism:

i) Militants are using advanced equipment like night-vision glasses and M4 rifles.

ii) Increased instances of narco-terrorism, facilitated by people and drones, have generated funds for terror activities and local distribution.

iii) Drones transporting drugs, explosives, weapons, and money have been intercepted by security forces.

Mains point: there has been a surge in terror attacks in Jammu

6. On political representation of women

Context: The article highlights the comparison of women's representation in India with other democracies, the role of constitutional amendments, and the impact of internal party quotas.

There are 2 methods used globally to ensure higher representation of women;

(a) voluntary or legislated compulsory quotas for candidates within political parties.

(b) quota in parliament through reservation of seats.



The women granted Universal Suffrage:

- Universal suffrage was achieved after prolonged political movements. New Zealand was the first to grant universal women suffrage in 1893, followed by the UK in 1928 and the US in 1920.

- India granted women the right to vote from the first general elections in 1952.

The trend regarding women representation in India:

Low representation: The representation of women in the Lok Sabha and State legislative assemblies remained low, with percentages between 5% and 10% until

2004, rising to 12% in 2014, and currently at 14% in the 18th Lok Sabha.

- As per the Inter-Parliamentary Union report, India ranks 143 in the list of countries in the 'Monthly ranking of women in national parliaments.
- 73rd and 74th Constitutional Amendments in 1992/1993 provided one-third reservation for women in panchayats and municipalities. However, similar reservations for the Lok Sabha and assemblies were unsuccessful despite attempts between 1996 and 2008.
- 106th Constitutional Amendment passed in September 2023, provides for one-third reservation of seats for women in the Lok Sabha and State legislative assemblies. However, This reservation will come into effect after the delimitation exercise after the first Census figures are published following the commencement of this act.

- It may reduce MPs' incentive to work hard in their constituencies due to seat rotation after each delimitation.
- Countries with political party quotas generally fare better than those with parliamentary quotas.

Way forward:

- The overdue Census since 2021 needs to be conducted promptly to ensure implementation by the 2029 general elections.
- Quotas within political parties provide more democratic choice to voters and allows flexibility to parties in choosing women candidates.

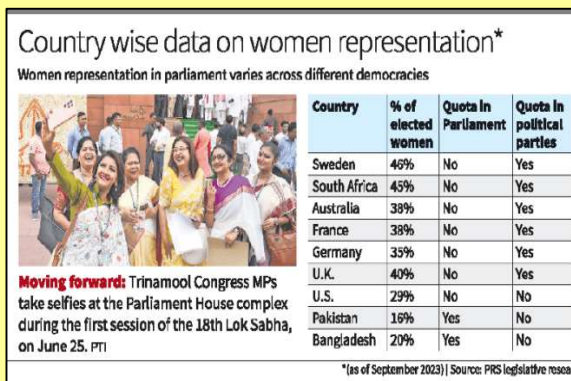
Mains point:The comparison of women's representation in India.

7.Wrongheaded policy: The Karnataka Bill on reserving jobs for locals is self-defeating.

Context: The article talks about Karnataka's draft "State Employment of Local Candidates in the Industries, Factories and Other Establishments Bill, 2024," which aimed to reserve jobs for locals but faced legal and industry backlash. It argues that fair labor practices for all workers, not just local ones, are a better solution.

The Proposed Karnataka Bill Controversial:

- **Local Reservation Requirement:** The proposed Karnataka Bill mandates that 50% of management and 70% of non-management positions in industries be reserved for local candidates. This is seen as restrictive by businesses.
- **Legal Precedents:** Similar laws in other states like Haryana and Andhra Pradesh have faced legal challenges. The Punjab and Haryana High Court quashed Haryana's law, citing violations of constitutional rights to equality (Article 14) and freedom (Article 19).
- **Industry Opposition:** The Bill was "temporarily withheld" after significant



Source: The Hindu

The significance of Women's Political Representation:

- **Increasing Gender Sensitivity:** Ensuring fair representation of women in legislatures is expected to increase gender sensitivity in parliamentary processes and legislation.
Representation: It will potentially be increasing the number of women ministers at the Centre and States.
Opponents of reserved parliamentary quotas argue:
 - It may be seen as women not competing on merit.

pushback from industry heads and trade bodies, indicating strong resistance from the business community.

- **Comparative Examples:** Andhra Pradesh's similar law is still under judicial review, and Jharkhand's has not been implemented, suggesting ongoing controversy and legal complications with such initiatives.

Way forward:

- **Enforce Labor Rights:** Ensure fair treatment and protect all workers, including migrants, from exploitation.
- **Address Exploitative Practices:** Employers should not make migrant workers work longer hours for lower pay without benefits.
- **Create a Level Playing Field:** Provide equal opportunities for local and migrant workers by curbing unfair labor practices.
- **Avoid Protectionism:** Job protectionism for local workers is not a solution.
- **Legal Compliance:** Follow constitutional provisions like Article 16(3), which limits reservation based on residence to public employment and requires Parliament's approval.

Mains point: The main reasons for the controversy surrounding Karnataka's draft "State Employment of Local Candidates in the Industries, Factories and Other Establishments Bill, 2024.

8. Employment-Linked Incentive Schemes.

Context: The Union Budget allocates ₹2 lakh crore for employment and skilling schemes.

About Employment-Linked Incentive Schemes:

The Centre will implement three schemes for "employment-linked incentive" as part of the Prime Minister's package, focusing on enrolment in the Employees' Provident Fund Organisation (EPFO).

First Scheme- This scheme will provide one-month wage to all persons newly entering the workforce in all formal sectors. The direct benefit transfer of one-month salary in 3 instalments to first-time employees, as registered in the EPFO, will be up to Rs. 15,000. The eligibility limit will be a salary of Rs. 1 lakh per month. The scheme is expected to benefit 210 lakh youth.

Second scheme- An incentive will be provided at specified scale directly both to the employee and the employer with respect to their EPFO contribution in the first 4 years of employment. The scheme is expected to benefit 30 lakh youth entering employment, and their employers.

Third scheme- This employer-focused scheme will cover additional employment in all sectors. All additional employment within a salary of Rs.1 lakh per month will be counted. The government will reimburse to employers up to Rs. 3,000 per month for 2 years towards their EPFO contribution for each additional employee. The scheme is expected to incentivize additional employment of 50 lakh persons.

- **Skilling programme-** A new centrally sponsored scheme will be launched to skill 20 lakh youth over a 5-year period. 1,000 Industrial Training Institutes will be upgraded in hub and spoke arrangements with outcome orientation.

- **Internship in Top Companies-** A comprehensive scheme for providing internship opportunities in 500 top companies to 1 crore youth in 5 years. They will gain exposure for 12 months to real-life business environment, varied professions and employment opportunities. An internship allowance of Rs. 5,000 per month along with a one-time assistance of Rs. 6,000 will be provided. Companies will be expected to

bear the training cost and 10 per cent of the internship cost from their CSR funds.

Prelims point: About Employment-Linked Incentive Schemes

9. India's Digital Personal Data Protection Act.

Context: The Digital Personal Data Protection Act (DPDP Act) of 2023 is set to revolutionize how businesses handle personal data in India. This new legislation has raised concerns among sales teams and organizations about their traditional marketing and data collection practices.

- Companies mostly gather large datasets of personal information to generate sales leads. Call centers then use this data to contact potential customers, leading to frequent interruptions from unsolicited sales calls and online ads. This data acquisition process sometimes raises ethical concerns.



The Key Provisions of the DPDP Act:

Legitimate Grounds for Data Processing

-Personal data must have a valid reason for processing, usually obtained through consent. This consent must be specific to the intended use of the data. Sharing or repurposing data without explicit consent is not allowed.

Rights of Data Principals- Individuals have the right to access information about how their personal data is being processed. They can also inquire about sharing their data sets with others.

Obligations of Data Fiduciaries- Organizations must track all purposes for

which personal data is used. They must show that they have obtained consent for any data transfers.

Penalties: Each breach of the DPDP Act can result in penalties up to ₹250 crore.

The impact of this Act on Business Operations:

a) Sales and Marketing-

A) Traditional “spray-and-pray” marketing approaches may become unsustainable.

B) Businesses selling datasets of personal information will likely shut down.

C) Storing pre-existing data without legitimate grounds becomes a violation.

b) Customer Verification Processes-

Updating KYC with alternate phone numbers can raise compliance issues. Businesses will have to redesign processes to avoid unnecessary collection of personal data.

The Way ahead:

A) Organizations need to revise their operations to ensure compliance.

B) Alternative marketing strategies that respect data privacy must be developed.

Mains point: The Key Provisions of the DPDP Act and The impact of this Act on Business Operations.

10. Costs and Benefits of Hosting the Olympics.

Context : India recently expressed interest in hosting the 2036 Olympics at the IOC Session. Economists suggest this interest might be driven more by national pride or political reasons rather than economic benefits. Given India's current spending on social programs, it's worth asking if the country should spend so much on hosting the Olympics.

The financial implications of hosting the Olympics:

High Costs and Financial Burdens - Hosting the Olympics is very costly, with the Summer Games averaging over \$8 billion. History shows that host nations

often face large financial burdens. For ex-Montreal's 1976 Olympics left a debt of over CAD\$1.5 billion, and Greece's 2004 Athens Games contributed to the country's debt crisis.

- **Cost Overrun**-The London, Rio, and Tokyo Summer Olympics together cost over \$50 billion in 2022 terms, which was 185% more than the budgeted amounts. This does not include extra infrastructure costs.

The arguments against hosting Olympic games by India:

Cost Overruns vs. Olympic Expenses- India is used to cost overruns. By the end of 2023, 580 major projects, each costing over ₹1,000 crore, had exceeded their budgets by 25%, reaching ₹25.84 trillion. However, this is still small compared to the cost overruns often seen with the Olympics.

Challenges in Securing Private Sector Funding- Most Olympic funding comes from the private sector, but in India, the government struggles to get companies to increase their spending. It's unclear if Indian companies will invest billions in hosting the Olympics without seeing direct benefits.

Post-Event Venue Neglect -Hosting a multi-city Olympics in India would require significant new infrastructure. However, past events like the post-2010 Commonwealth Games demonstrate that specialized sports venues are neglected once the event concludes.

Limited Economic Impact -The estimated economic gain (Hosting 2024 Olympic) of €11.1 billion translates to about €650 million per year, just 0.03% of France's 2023 GDP. The National Institute of Statistics and Economic Studies has stated there is no clear evidence that hosting major sporting events benefits the host country's economy.

Uncertain Costs of Hosting -True cost of hosting the Olympics is often unclear. For ex-the Oxford Olympics Study 2016 found reliable cost data for only about two-thirds of the Games held since 1960.

- **Lack of Appropriate Benefits of Olympic Infrastructure-** Despite the high costs and private investment required, the new infrastructure from hosting the Olympics may not be as useful as hoped. For ex- the 2016 Rio Olympics led to corruption, crumbling stadiums, and worsened the economic crisis.

Mains point:The arguments against hosting Olympic games by India.

11.Maharashtra Special Public Security Bill, 2024.

Context: Recently, the Maharashtra government introduced the Maharashtra Special Public Security Bill, 2024 in the Assembly. The Bill allows the State to declare any organisation as 'unlawful', categorizing offences as cognisable and non-bailable.

About Maharashtra Special Public Security Bill, 2024:

- It was introduced to combat the increasing threat of Naxalism, especially in urban areas through Naxal-affiliated organizations.
- The state has the authority to declare an organization as "unlawful." An advisory board of three qualified individuals (current/former/qualified High Court judges) will review such decisions.

Definition of Unlawful Activities:

- a. The activities that threaten public order, peace, and tranquility.
- b. Interference with the administration of law and public servants.
- c. Acts of violence, vandalism, use of firearms, explosives, and disruption of transportation.

- d. Encouragement of disobedience to laws and institutions.
- e. Collecting funds or goods for unlawful activities.
- f. All offences under this law are cognizable and non-bailable. Investigations will be conducted by a police officer not below the rank of a Sub-Inspector.

Punishments:

a. Members of Unlawful Organizations: Imprisonment up to 3 years and fines up to Rs 3 lakh.

b. Non-members Contributing or Aiding Unlawful Organizations: Imprisonment up to 2 years and fines up to Rs 2 lakh.

c. Management or Promotion of Unlawful Organizations: Imprisonment up to 3 years and fines up to Rs 3 lakh.

d. Committing, Abetting, or Planning Unlawful Activities: Imprisonment up to 7 years and fines up to Rs 5 lakh.

Seizure and Forfeiture: If an organization is declared unlawful, the District Magistrate or Commissioner of Police can notify and take possession of any place used for its activities. The government can forfeit money and assets intended for unlawful organizations.

Legal Review: An advisory board must review the declaration of unlawful organizations within six weeks and submit a report within three months. The High Court can review government actions through revision petitions.

Prelims point: the Maharashtra Special Public Security Bill, 2024

12. Fiscal federalism: The ruling on taxing mineral rights opens up resource avenue for States.

Context: The article discusses a Supreme Court ruling that allows states to tax mineral rights and mineral-bearing lands. This decision strengthens states' legislative powers. However, there's

concern it could lead to uneven mineral costs and increased industrial product prices.

The Supreme Court's Ruling:

The Supreme Court ruled 8:1 that states can tax mineral rights and mineral-bearing lands.

Chief Justice Dr. D.Y. Chandrachud found no limitation in the 1957 Act. The Court saw royalty as a contractual consideration, not a tax. States could tax mineral-bearing lands under Entry 49, a general power to tax lands.



This Ruling Significant:

Strengthens States' Power: The ruling reinforces states' legislative authority to tax mineral rights and lands, protecting it from Parliament's interference. Previously, entry 50 in the State List allowed states to tax mineral rights but was thought to be limited by Parliament's law.

Clarifies Taxation Limits: It clarifies that the Mines and Minerals (Development and Regulation) Act, 1957, does not limit states' taxation powers.

New Revenue Avenue: States gain a new taxation avenue, aiding their ability to fund welfare schemes and services.

Royalty Clarification: The Court determined that royalty is not a tax but a contractual consideration, allowing states more freedom in taxation.

Supports Fiscal Federalism: This decision promotes fiscal federalism and state autonomy in financial matters.

The Concerns About This Ruling:

Unhealthy Competition: Justice B.V. Nagarathna's dissent warns of states

entering unhealthy competition to derive revenue.

Increased Costs: This could lead to uneven and uncoordinated spikes in mineral costs, affecting purchasers. Higher mineral costs may result in increased prices for industrial products.

Market Exploitation: There is a risk of the national market being exploited for arbitrage.

Future Amendments: The Centre might amend the law to limit or prohibit states from taxing mineral rights, potentially leaving mining activities untaxed.

Mains point: The recent Supreme Court ruling on state taxation of mineral rights and lands impacts fiscal federalism and state autonomy in financial matters.

13. Renewed political interest in the Indian Constitution

Context: The article discusses the resurgence of interest in the Indian Constitution during elections. It warns against conflating the Constitution with specific policies like reservations. It emphasizes respecting the Constitution without deifying it and urges adherence to constitutional values in daily conduct.

There renewed political interest in the Indian Constitution during the general election:

- **Central Role in Elections:** The Indian Constitution became a focal point during the elections, with opposition politicians showcasing pocketbook editions and the government celebrating its 75th anniversary on a grand scale.
- **Republican Concerns:** Indian republicans, who support constitutional values, felt marginalized as both the left and right often ignored constitutional norms.
 - **Supreme Court Rulings:** The Supreme Court has sometimes sided with popular opinion over constitutional

principles, increasing the urgency to uphold the Constitution.

- **Reservations Debate:** The Constitution was mistakenly equated with reservation policies, leading people to vote to preserve these policies, which could skew public perception.

The concerns related to conflating the Constitution with specific policies:

- **Misleading Voters:** Equating the Constitution with reservation policies can mislead voters. It simplifies a complex document into a single policy.

- **Ambedkar's Caution:** B.R. Ambedkar avoided embedding specific policies like socialism in the Constitution. He believed future generations should not be committed to specific policies.

- **Social Justice Goals:** Reservations are one method for achieving social justice, but not the only one. The Constitution supports exploring better methods.

- **Potential Division:** Those opposed to reservations might unnecessarily oppose the Constitution. This can create unnecessary divisions.

- **Historical Misinterpretation:** Figures like Ambedkar warned against hero worship. His ideas on constitutionalism are often ignored, emphasizing the need to focus on broader principles rather than specific policies.

Way forward:

Promote Constitutional Values: Encourage adherence to the Constitution in daily conduct. Example: "Dharmo rakshati rakshitaah" emphasizes protecting constitutional values.

Respect, Don't Deify: Treat the Constitution as a social contract, not a holy book. Example: Figures like Gandhi and Ambedkar were elevated but often forgotten in principle.

Respect Judicial Independence: Remember the Chief Justice's warning about not deifying courts or judges,

maintaining their role as public servants adhering to constitutional morality.

Mains point: The concerns related to conflating the Indian Constitution with specific policies like reservations during elections.

14. Issues of reservation in India

Context: The article discusses the history and issues of reservation in India. It covers the creamy layer concept in OBC reservations, controversies over certificate misuse, and the need for better scrutiny and sub-categorization to ensure fair distribution of reservation benefits.

The History of Reservation:

Constitutional Provisions: Articles 15 and 16 guarantee equality and allow special provisions for socially and educationally backward classes, SCs, and STs.

Reservation Quotas: SCs get 15%, STs get 7.5% in jobs, education, and PSUs.

- **OBC Reservation:** In 1990, Prime Minister V.P. Singh implemented 27% reservation for OBCs based on the Mandal Commission's recommendations.
- **Educational Institutions:** In 2005, reservations extended to educational institutions, including private ones.
- **EWS Reservation:** In 2019, 10% reservation was introduced for Economically Weaker Sections among the unreserved categories. For detailed information on Affirmative Action in India read this article here

Creamy Layer:

- **Supreme Court Ruling:** The Supreme Court upheld 27% OBC reservation in the Indra Sawhney case (1992) but capped total reservations at 50%.
- **Creamy Layer Exclusion:** Creamy layer exclusion was introduced to ensure equality. Criteria include parental income over ₹8 lakh annually, and positions held by parents in government or PSUs.

The Issues:

- **Certificate Misuse:** Allegations exist of obtaining NCL or EWS certificates through dubious means. This includes disability certificates for reserved jobs.

- **Avoiding Creamy Layer:** Strategies like gifting assets or taking early retirement are used to avoid creamy layer exclusion.

- **Concentration of Benefits:** The Rohini Commission found that 97% of reserved jobs and educational seats go to just 25% of OBC communities. Nearly 1,000 OBC communities have no representation.

- **Unfilled Reserved Seats:** 40-50% of seats reserved for OBC, SC, and ST remain unfilled in central government jobs.

Way forward:

- **Improve Scrutiny:** Ensure only eligible applicants receive NCL, EWS, and disability certificates.

- **Fill Reserved Vacancies:** Address the 40-50% unfilled reserved seats for OBC, SC, and ST in central government jobs.

- **Sub-categorize OBC Reservations:** Implement sub-categorization to help the 1,000 OBC communities with zero representation.

- **Consider Creamy Layer for SC/ST:** Debate creamy layer exclusion for children of Group I/Class A officials in SC/ST categories.

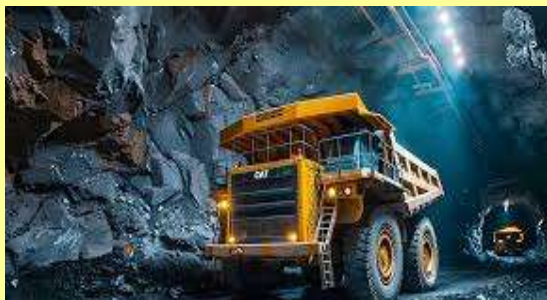
- **Engage Stakeholders:** Initiate discussions with all stakeholders to refine reservation policies and ensure benefits reach the most marginalized.

Mains point: The history and current issues related to reservation in India, focusing on the creamy layer concept and the challenges faced in ensuring fair distribution of reservation benefits.

15. States' Power to Tax Minerals

Context: The Supreme Court has delivered a landmark decision allowing states to tax minerals in addition to the royalties set by the central government.

This long-standing case, unresolved for over 25 years, was decided with an 8:1 vote.



The background:

- **Key Legal Questions-** Section 9 of the 1957 Act requires mining leaseholders to pay royalties to landowners for any minerals removed. The key questions were whether these royalties are considered a “tax” and whether the Centre or only the States can impose such charges.
- **Previous Supreme Court Ruling- In the India Cement Ltd. v. State of Tamil Nadu case,** the Supreme Court ruled that states can only collect royalties and cannot impose extra taxes on mining. The Court held that the Union government has overriding authority over mining regulation under Entry 54 of the Union List, so states cannot impose extra taxes on this matter.

The difference between royalty and tax:

- Royalties are payments made by a mining company to a landowner for the right to extract minerals, while taxes are imposed by the government to fund public services.
- The Court emphasized that taxes are set by law and can only be collected by public authorities, whereas royalties are paid directly to the landowner for giving up their rights to the minerals.

The states have to tax mining activities as per the recent judgement:

- **State Authority to Tax Mineral Rights** -Entry 50 of the State List gives States the authority to tax mineral rights,

but this is limited by any laws Parliament may pass on mineral development.

- **Interpretations of Entry 50 and the 1957 Act** -The Centre argued that Entry 50 of the State List allowed Parliament to limit state taxes on mineral rights through laws like the 1957 Act. However, the Court found that royalties are not considered taxes and thus do not fall under Entry 50’s definition of “taxes on mineral rights.” So, the 1957 Act only gave states extra revenue from royalties and did not change their ability to tax mineral rights.

- **Union and State Powers under Entry 54** -The Centre can regulate mining under Entry 54, but it cannot impose taxes, which is solely a state power. However, Parliament can impose limitations, including prohibitions, on State taxes and amend the 1957 Act to restrict State taxation.

- **Taxation under Article 246 and Entry 49**- States can tax land with mines under Article 246 and Entry 49 of the State List. This means they can include mineral-bearing lands in their land taxes.

The issues with this judgement:

- **Mineral Development Goals** - Royalties under the 1957 Act are designed to fund mineral development. The Act limits states to collecting only these royalties. Allowing states to add extra taxes could hinder the Act’s goal of boosting mineral development.

- **Foster Unhealthy Competition**-If states could tax mineral rights, it might lead to unhealthy competition, causing chaotic and uneven increases in mineral prices. This could disrupt the national market and create chances for price manipulation.

Mains point: The states have to tax mining activities according to the recent ruling.

INTERNATIONAL ISSUES:

1. India and Russia have doubled rupee-rouble payments in 2024.

Context: The article discusses how India and Russia have doubled their payments in national currencies despite Western sanctions. Rupee deposits by Indian companies in Russia have increased significantly. Economists believe that India's trade with Russia could grow further following Prime Minister Modi's recent visit to Moscow.

The Current State of India-Russia Trade Payments:

- **Increase in Payments:** India and Russia have doubled their trade payments in national currencies (rupee and rouble) despite Western sanctions.
- **Sberbank's Role:** Sberbank, Russia's largest bank, reports a doubling in payment volume and an 80% increase in transactions from January to June 2024 compared to the same period in 2023.
- **Rupee Deposits:** There has been a sixfold increase in corporate rupee deposits in Russia in 2024.



The Challenges and Opportunities for India in Russia:

Challenges:

Competition with China: Chinese businesses have taken advantage of the sanctions to dominate the Russian market. China has bilateral trade with Russia worth

\$240 billion, significantly higher than India's trade volume.

Currency Competition: Indian businesses are sometimes forced to consider using the Chinese yuan, which indicates a challenge in promoting the rupee exclusively.

Opportunities:

Increase in Rupee Usage: The sixfold increase in corporate rupee deposits in Russia since the start of 2024 shows growing trust in the Indian currency.

Prime Minister's Visit Impact: Prime Minister Modi's recent visit to Moscow is described as crucial for advancing to a new level of economic cooperation.

Market Vacuum: The exit of Western companies from Russia creates opportunities for Indian products to fill the market gaps.

Prime Minister Modi's Visit to Moscow:

Strengthened Economic Ties: The visit marked a new level of economic cooperation between India and Russia.

Future Trade Goals: Both leaders set a trade target of \$100 billion by 2030, emphasizing the potential growth in bilateral trade.

Sectoral Focus: Key sectors for increased Indian exports include auto and aviation components, chemicals, microelectronics, and consumer electronics.

Mains point: The impact of Prime Minister Modi's recent visit to Moscow on India-Russia economic relations.

2. Reasons for strained India-Nepal relations

Context: The article discusses the strained relationship between India and Nepal, worsened by political and diplomatic tensions since 2015. It suggests opportunities for improvement with the leadership of Narendra Modi and Khadga

Prasad Oli, focusing on mutual respect and non-interference for a stable partnership.

The Strain Between India and Nepal:

- **Constitutional Dispute:** In 2015, tensions escalated when Nepal adopted a new Constitution without the amendments India had suggested, leading to significant political discord between the two countries.
- **Economic Blockade:** India imposed a nearly six-month-long economic blockade on Nepal, severely impacting Nepal's economy and increasing resentment towards India.
- **Shift Towards China:** In response to the blockade, Nepal's then-Prime Minister Khadga Prasad Oli signed 10 significant agreements with China, diversifying Nepal's economic and strategic alliances away from India.
- **Political Statements:** The relationship faced further tension when Oli suggested that the historical city of Ayodhya was located within Nepal and criticized India's national motto, proposing a change to reflect a more assertive stance.
- **Territorial Disputes:** The relationship further deteriorated after India published a political map in 2019 that included territories claimed by Nepal, prompting Nepal to amend its Constitution to include these areas in its own map.



The Economic and Social Impact:

- **Dependency on Remittances:** Nepal is the seventh largest remittance-sending country to India, significantly supporting

livelihoods in India's economically weaker states like Uttar Pradesh, Bihar, and Odisha.

- **Trade Diversification:** Following the blockade, Nepal signed 10 agreements with China, expanding trade and transit options, reducing dependence on India.
- **Hydropower Agreements:** Recent power trade agreements favor India, limiting Nepal's ability to export electricity generated with Chinese investments, impacting Nepal's energy sector.
- **Political Instability:** The imposition of India's preferences in Nepali politics, as seen with leaders like Pushpa Kamal Dahal ('Prachanda'), has led to political compliance at the cost of addressing key bilateral issues, affecting Nepal's political autonomy and social dynamics.
- **Hindutva Influence:** The presence of Hindutva advocates supported by India in Nepal's plains and hills has stirred social tensions, affecting Nepal's cultural and political landscape.

Way forward:

- **Respect for Sovereignty:** Both nations should commit to non-interference in each other's internal affairs, aligning with the principles of the Panchsheel doctrine.
- **Policy Corrections:** India could revise its policies under Modi's "Neighbourhood First" initiative, emphasizing mutual respect and economic cooperation rather than dominance.
- **Release of EPG Report:** Implementing the recommendations of the India-Nepal Eminent Persons' Group report could help establish a transparent and equal partnership.
- **Dialogue on Bilateral Issues:** Engage in constructive dialogues to address and resolve standing issues, such as the territorial disputes involving the

Limpiyadhura-Kalapani area and economic agreements.

- **Reviving Regional Cooperation:** Nepal and India should work towards revitalizing the South Asian Association for Regional Cooperation (SAARC) as a platform to enhance regional integration and cooperation, which would benefit not just the two countries but the entire South Asian region.
- **Rebalancing Relations:** The relationship dynamics should move away from perceptions of New Delhi being imperious and Kathmandu being subservient. Kathmandu needs to assert its voice more confidently, while New Delhi must reflect on and amend its approaches that have led to Nepali dissatisfaction.
- **Cordiality vs. Skepticism:** Despite the default friendly disposition of Nepal towards India, New Delhi remains skeptical of Nepal's intentions and alignments, particularly regarding Nepal's interactions with other countries like China. India must address its skepticism towards Nepal's intentions

Mains Point: The key factors that led to the strain in the relationship between India and Nepal.

3. World Bank Group Guarantee Platform.

Context: The World Bank Group Guarantee Platform was recently opened for business in 2024. Its purpose is to simplify and streamline the guarantee issuance process.

About the Platform:

- The platform is housed at the Multilateral Investment Guarantee Agency (MIGA).
- It was initiated in 2024.
- It combines products and expertise from the World Bank, International Finance Corporation (IFC), and MIGA.
 - **Goal:** The goal is to increase annual guarantee issuance to \$20 billion by 2030.

This platform serves as a one-stop shop for all World Bank Group guarantee needs.

Key Features:

The platform offers a simplified menu of guarantee options. It provides three types of coverage:

Credit Guarantees: These guarantees are for loans to the public or private sectors.

Trade Finance Guarantees: These are for trade finance projects involving public entities.

Political Risk Insurance: This insurance protects against non-commercial risks in private sector projects or public-private partnerships.

Significance:

- The World Bank Group Guarantees platform consolidates all guarantee products and experts from across the World Bank Group institutions at MIGA.

- It provides a simplified and comprehensive menu of guarantee solutions, enabling clients to select the instrument that best suits their needs.

- The platform streamlines processes, removes redundancies and provides greater accessibility by de-risking investments in developing countries.

- Prelims point: The World Bank Group Guarantee Platform

4. India's strategic autonomy amid its relationship with the U.S. and Russia

Context: The article discusses India's strategic autonomy amid its relationship with the U.S. and Russia. It explains that India's approach to foreign policy allows it to make independent decisions despite global pressures. This autonomy helps India balance its ties with both Russia and the West.

The Current Tension Between India and the U.S.:

Recent Diplomatic Strains: The tension between India and the U.S. has escalated due to India's neutral stance on the Ukraine conflict and its continued partnership with Russia.

U.S. Concerns: The U.S. expressed displeasure when India proceeded with Prime Minister Modi's visit to Moscow, especially right before a NATO summit.

Strategic Autonomy Debate: U.S. officials, including Ambassador Eric Garcetti, criticized India's concept of strategic autonomy, suggesting it's ineffective during crises.

Economic and Defense Ties with Russia: India's crude oil imports from Russia surged from \$2.4 billion in 2021-22 to \$46.5 billion in 2023-24. Over 40% of India's defense imports come from Russia.

India Maintained Its Strategic Autonomy:

- **Historical Roots:** India's strategic autonomy evolved from its non-alignment policy during the Cold War.
- **Neutral Position:** India maintained neutrality in the Russia-Ukraine conflict, avoiding Western pressure.
- **Defense and Energy Ties:** Despite global pressures, India imports over 40% of its defense equipment from Russia and significantly increased its oil imports from Russia.
- **Balanced Relationships:** India engages with both Russia and Western countries to protect its interests.
- **Multilateral Approach:** India supports a multilateral global order, ensuring its voice and that of the Global South are heard.

The Significance of India's Relationship with Russia:

- **Continental Asia:** India collaborates with Russia for economic progress, connectivity, and security in Eurasia.

- **Balancing China:** India's ties with Russia can act as a counterbalance to Russia's growing relationship with China.

- **Strategic Autonomy:** Maintaining this relationship allows India to pursue its own interests without aligning strictly with any major power bloc.

- **India View Its Role in a Multipolar World:**

- **Strategic Autonomy:** India maintains strategic autonomy to navigate global relations based on its national interests, balancing ties with major powers like the U.S. and Russia.

- **Global Balancing Act:** India's approach aims to maintain neutrality and cooperation with different global powers, avoiding alignment with any specific bloc.

- **Positive-Sum Perspective:** By promoting multilateral interactions, India supports a more inclusive global order, viewing international relations as opportunities for mutual benefit rather than competition.

Mains Point: India's policy of strategic autonomy influences its relationships with both the United States and Russia.

5.UN Water Convention

Context: Recently, Ivory Coast joined the United Nations Water Convention, becoming the 10th African nation to do so.



About UN Water Convention:

- The UN Water Convention, also known as the Convention on the Protection

and Use of Transboundary Watercourses and International Lakes, was adopted in Helsinki in 1992 and entered into force in 1996.

- It is a unique legally binding instrument that promotes the sustainable management of shared water resources, supports the implementation of the Sustainable Development Goals (SDGs), prevents conflicts, and fosters peace and regional integration.

History

- The Convention was originally negotiated as a regional framework for the pan-European region. Following an amendment procedure, all UN Member States have been able to accede to it since March 2016.

- Chad and Senegal became the first African Parties in 2018.

- Iraq acceded in March 2023 as the first country from the Middle East, Namibia joined in June 2023 as the first country from Southern Africa, and Panama became the first country from Latin America to join in July 2023.

Requirements for Parties:

- Parties to the Convention are required to prevent, control, and reduce transboundary impacts, use transboundary waters in a reasonable and equitable way, and ensure their sustainable management.

- Parties that border the same transboundary waters must cooperate by entering into specific agreements and establishing joint bodies.

- As a framework agreement, the Convention does not replace bilateral and multilateral agreements for specific basins or aquifers and instead it fosters their establishment, implementation, and further development.

Significance:

- The Convention is a powerful tool to promote and operationalize the achievement of the 2030 Agenda for Sustainable Development and its SDGs.

- The United Nations Economic Commission for Europe (UNECE) services the UN Water Convention.

About Ivory Coast:

- Ivory Coast shares eight transboundary river basins, including the Black Volta, Bia, Tanoe, Comoe, Niger, Sassandra, Cavally, and Nuon, with six of its neighbors: Ghana, Burkina Faso, Mali, Guinea, Liberia, and Sierra Leone.

Prelims point: UN Water Convention.

6.The importance of both Quad and BRICS.

Context: The article discusses India's strategic involvement in both the Quad and BRICS. It highlights the challenges and opportunities India faces in balancing its role in these groups. The article underscores the need for India to stay actively engaged in both alliances.



The Context of the Quad Foreign Ministers' Meeting:

- The Quad Foreign Ministers are meeting in Japan after 10 months.

- This happens when the UNSC is inactive, and reforms are stalled.

- International law violations are occurring in Ukraine and Gaza.
- An alliance of Russia, China, North Korea, and Iran is gaining strength.
- Chinese influence is expanding in the Indo-Pacific and beyond.

The challenges and opportunities India faces in balancing its role in these groups:

India's Quad Engagement:

a) Challenges:

- **Security Focus:** Quad's security-centric approach, especially with AUKUS, does not fully align with India's broader vision.
- **Diplomatic Balance:** India's independent stance on Russia and Ukraine conflicts with some Quad members' positions.

b) Opportunities:

- **Strategic Benefits:** Enhanced bilateral relations, particularly with the U.S.
- **Techno-Economic Role:** Leadership in critical technology areas and supply chains.
- **Maritime Security:** Significant contributions to Indo-Pacific maritime security, as seen in the 2021 event presided over by PM Modi.

India's BRICS Engagement

a) Challenges:

- **China's Dominance:** Risk of China using BRICS to promote its global agenda.
- **Expansion:** Managing new members and ensuring they support India's interests.

b) Opportunities:

- **Reformed Multilateralism:** Promoting "reformed multilateralism" and shaping global governance.
- **Financial Institutions:** Leveraging initiatives like the New Development Bank and Contingent Reserve Arrangement.
- **Global South Influence:** Strengthening ties with developing countries and balancing Western influence.

AUKUS and Its Impact on the Quad:

AUKUS Formation:

- **Members:** Includes the U.S., Australia, and the U.K.
- **Purpose:** Enhance military capabilities, focusing on nuclear submarines for Australia.
- **Strategic Focus:** Primarily aimed at securitizing the Indo-Pacific and deterring China.

Impact on the Quad

- **Security Emphasis:** Shifts the regional focus towards military aspects, aligning with U.S. interests.
- **India's Perspective:** Causes a dilemma for India, which prefers a broader vision for Quad that includes development and security.
- **Geo-strategic Interests:** While AUKUS complements Quad's objectives, India's reluctance to fully embrace a purely military vision underscores its unique position and strategy within these alliances.

Mains point: India's strategic involvement in both the Quad and BRICS

7. India's Prime Minister's visit to Russia and its implications

Context: The article discusses Prime Minister Modi's visit to Russia and its implications. The visit signals India's support for Russia despite criticism from the U.S. and Europe. It highlights India's strategic choices, economic ties, and the geopolitical importance of maintaining a relationship with Russia.

The U.S. and Europe react to India's Prime Minister's visit to Russia: The U.S. and Europe reacted with criticism and disappointment to Prime Minister Modi's visit to Russia.

- Ukraine's President Zelenskyy sharply criticized the visit.

- The U.S. State Department, National Security Adviser, and U.S. Ambassador to India expressed their disappointment.
- Despite these reactions, India emphasized its “freedom of choice” in foreign relations. India abstained from over 20 United Nations votes condemning Russia, including a recent vote on July 11 after a missile attack on a children’s hospital.
- This affect India’s relations with other countries:
 - Modi’s visit to Russia signals a priority for relations with Russia over a joint appearance with China’s President at the SCO Summit.
 - This could affect India’s relations with Indo-Pacific partners and its role in groups like Quad (India, Japan, Australia, U.S.) and AUKUS (Australia-U.K.-U.S.).
 - The U.S. has forged new partnerships like AUKUS and engaged “Quad Plus” countries, which may limit India’s influence.
 - The visit underscores India’s strategic autonomy, balancing its ties with Russia and Western countries.

The economic implications:

- Trade between India and Russia grew by 66% to \$65 billion last year. India’s imports of discounted Russian oil are a key factor in this trade growth.
- Both countries are working on payment mechanisms to sustain this trade amid Western sanctions.
- The joint statement mentioned cooperation in Russia’s Far East, focusing on energy supplies and commodity exports.
- The Chennai-Vladivostok maritime corridor aims to enhance trade routes.
- Investments include Rosneft’s \$23 billion stake in India’s Vadinar refinery

and Indian investments in Russian oil fields worth \$15 billion.

- These economic ties help balance the trade deficit and support mutual investments.

The strategic significance:

- India’s strategic autonomy was highlighted through this visit. The focus is on new connectivity routes like the North Sea trade route, avoiding reliance on Iran-led corridors.
- Military hardware imports from Russia are decreasing, but economic strategies strengthen bilateral ties.
- India’s bet on the enduring relationship with Russia may be tested by future developments in the Ukraine war and global political changes.

Way forward:

- The visit underscores India’s strategic positioning between major global powers. It shows India’s willingness to maintain and strengthen its ties with Russia, balancing its relationships with Western countries and China, while navigating ongoing global conflicts and economic sanctions.

Mains Point: Examine how Prime Minister Modi’s visit to Russia reflects India’s approach to balancing its international relations amid global criticisms and economic considerations.

8. India’s Strategic Challenges in the Face of China’s Rise

Context: This article discusses the evolving strategic rivalry between India and China, focusing on the challenges India faces due to China’s growing economic and military might. It emphasizes the need for India to develop a comprehensive strategy to

address the power asymmetry and protect its interests.



The key aspects of the Sino-Indian strategic and economic asymmetry:

- **Asymmetric Sino-Indian Rivalry-** The Sino-Indian rivalry is both strategic and asymmetric. China far surpasses India in economic development, military modernization, technology, and innovation, with a gap of 3 to 5 times in various indices.
 - **Economic Asymmetry-** China is India's largest trading partner, but this has led to a widening trade deficit for India. Additionally, China's growing trade relationships with India's neighbors complicate the economic relationship between the two countries.
 - **Nuclear Capabilities-** China is reportedly doubling its nuclear arsenal and upgrading its missile capabilities. As China closes the gap with the US, India finds it hard to match China's growing nuclear power. This rivalry impacts the Indo-Pakistan nuclear balance and India's efforts to achieve parity with China.
 - **Space Program-** China has a head start and more resources for its space program compared to India. Closing this gap will be challenging.
- Conventional Forces-** The material gaps between the Chinese and Indian forces are significant, with China's military budget nearly three times larger than India's. For ex- India's navy is about one-third the size

of China's and will remain smaller even with future expansions.

The reasons behind territorial contestation between China and India:

- Challenges at the Line of Actual Control (LAC)-The Line of Actual Control (LAC) is unclear and complex, causing frequent skirmishes and risks. Current confidence-building measures are weakening and failing to ensure peace. Until borders are clearly defined, conflicts and violations will likely continue.

Factors Shaping PLA strategy along the LAC-

- Expansion of road and rail infrastructure in Tibet and Xinjiang for quick troop movement.
- Improved support infrastructure (electricity, water, etc.) for troops.
- A new joint theatre command enabling large-scale, integrated use of PLA forces. These developments enhance the PLA's ability to operate effectively in challenging conditions and respond swiftly in crises.
- PLA Tactics -The PLA gradually asserts its claims, using Indian responses as reasons to escalate tensions. When standoffs reach a deadlock, they seek negotiations and disengagement. Their strategy is to achieve dominance without engaging in direct conflict.

The way forward:

- **New Agreement-**A new agreement is needed to address flaws in current protocols, manage risk-taking behavior, adapt to new technologies, and handle modern military issues like disengagement and troop reduction.

Addressing the Strategic Gap with China-

- The power asymmetry between China and India, which may shift depending on India's progress and China's trajectory.
- India's timeline to catch up with China, particularly by 2035 and 2049, to avoid being outpaced.
- Bridging the strategic gap requires political direction, economic reforms, military enhancements, and a clear security strategy. Efforts must be intensified to strengthen India's position.

Defense Preparedness:

- Ramp up indigenous capacity for strategic intelligence, surveillance, and reconnaissance.
- Strengthen strategic infrastructure along the Himalayas.
- Develop life-sustaining troop infrastructure, including high-quality habitat, electricity, broadband, water, and oil pipelines.
- Identify and acquire weapon platforms suited for extreme terrain and climatic conditions.
- Maintain high readiness levels among border troops for quick response to border infractions.
- Create and position agile and effective reserves for timely deployment.

Mains point: The main elements of the strategic and economic imbalance between China and India.

9. Key Discussions at 2nd BIMSTEC Foreign Ministers' Retreat

Context: India hosted the 2nd BIMSTEC Foreign Ministers' Retreat in New Delhi to discuss cooperation in security, trade, and connectivity. The retreat prepared for the sixth summit. The event highlighted India's strategic focus on strengthening ties with its eastern neighbors.

The retreat was divided into two parts:

First Session:

Assessment of Cooperation: Participants reviewed the current state of regional cooperation within BIMSTEC.

Implementation of Outcomes: India presented key outcomes from the 1st Retreat.

Centers of Excellence: Ideas were shared for establishing centers focusing on Agriculture, Disaster Management, and Maritime Transport.

Health Initiatives: India supported cancer research and e-visas for patients from BIMSTEC states; Sri Lanka proposed focusing on kidney disease.

Private Sector Involvement: Highlighted the need for private sector participation in trade and promotion of young entrepreneurs.

Security Concerns: Emphasized the importance of connectivity, cybersecurity, and countering trafficking of narcotics and illegal arms.

Second Session:

Country Expectations: Discussed individual countries' expectations for the upcoming summit.

Resource Mapping: Sri Lanka stressed the need to map mineral resources and integrate production stages.

Blue Economy: Bangladesh highlighted cooperation in the Blue Economy and suggested banning fishing during breeding seasons.

Tourism and Culture: Bhutan emphasized tourism and cultural exchanges.

Regional Synergy: Nepal promoted a 'whole of the region' approach for a results-oriented forum.

Non-traditional Security: Thailand and Myanmar discussed non-traditional security domains and combating online scams.

The Significance of These Developments:

- **Strategic Positioning:** Enhances India's role in the Bay of Bengal, countering China's influence and strengthening regional stability.
- **Economic Access:** Provides the northeastern region with crucial sea access via Bangladesh and Myanmar.
- **Regional Cooperation:** Fosters collaboration in cancer research, e-visas, and combating illegal activities, improving overall regional health and security.
- **Indo-Pacific Presence:** Reinforces India's presence in the Indo-Pacific by aligning with ASEAN members, Myanmar, and Thailand.
- **Resource Management:** Encourages sustainable development through resource mapping and Blue Economy initiatives, such as Sri Lanka's mineral resource mapping and Bangladesh's focus on sustainable fishing.
- **Policy Milestone:** Marks a decade of India's "Act East" and "Neighbourhood First" policies, reflecting ongoing efforts to nurture regional collaboration.

Mains Point: The key initiatives and areas of cooperation highlighted at the 2nd BIMSTEC Foreign Ministers' Retreat held in New Delhi.

10. India Assumes Chair of Asian Disaster Preparedness Centre (ADPC)

Context: Recently, India assumed the Chair of the ADPC.

About Asian Disaster Preparedness Centre (ADPC):

- ADPC is an autonomous international organization. It was established in 1986.
- It focuses on cooperation and implementation of disaster risk reduction and building climate resilience in the Asia-Pacific region.

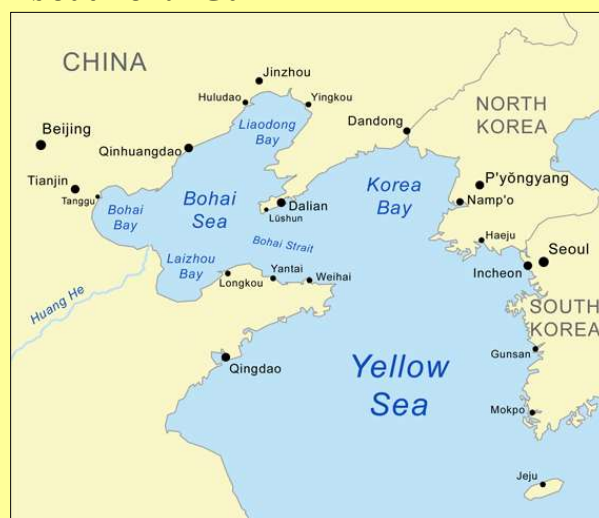
- ADPC provides training, deploys disaster risk management (DRM) strategies, and works to mitigate the impacts of natural disasters and climate change
- Founding members include India, Bangladesh, Cambodia, China, Nepal, Pakistan, Philippines, Sri Lanka, and Thailand.
- India chaired the 5th Board of Trustees (BoT) meeting of ADPC. The meeting was held on July 25, 2024, in Bangkok, Thailand.
- Shri Rajendra Singh, Member & HoD of the National Disaster Management Authority (NDMA), has taken over the chairmanship of the Asian Disaster Preparedness Centre (ADPC) from China.

Prelims Point: About Asian Disaster Preparedness Centre (ADPC)

11. Bohai Gulf

Context: UNESCO has recently added China's Migratory Bird Sanctuaries along the Yellow Sea-Bohai Gulf (Phase II) to its World Heritage List.

About Bohai Gulf



Source: Wikipedia

- **Location:** The Bohai Gulf is the innermost part of the Yellow Sea, situated on the northeastern coast of China. It is also known as the Bohai Sea or Bo Hai.

Historically, it was called the Gulf of Chili or the Gulf of Pechili.

- It covers an area of approximately 78,000 square kilometers. Due to its proximity to Beijing, it is one of the busiest seaways in the world.
- The gulf is bordered by the Liaodong Peninsula to the northeast and the Shandong Peninsula to the south.
- Key cities around the Bohai Gulf include Dalian and Tianjin. The gulf's shores include Liaodong Bay, Bohai Bay, and Laizhou Bay.
- The Yellow River, China's second-longest river, flows into the gulf.
- The area has significant petroleum deposits, oil refineries, and various industries.

Key Facts about the Yellow Sea

- The Yellow Sea is a marginal sea of the western Pacific Ocean.
- It is located between mainland China to the west and north, the Korean Peninsula to the east, and the Shandong and Liaodong Peninsulas to the south. It connects to the Bohai Sea to the northwest.
- The Yellow Sea is one of the largest shallow areas of continental shelf in the world, with an average depth of 44 meters and a maximum depth of 152 meters.
- Major rivers such as the Yellow River and the Yangtze River flow into the Yellow Sea. The sea has many islands, with notable ones including Jeju Island (South Korea), the Shandong Peninsula islands (China), and Ganghwa Island (South Korea).

Prelims Point: Bohai Gulf

ECONOMY

1. India and Russia have doubled rupee-rouble payments in 2024

Context: India and Russia have doubled their payments in national currencies despite Western sanctions

The article discusses how India and Russia have doubled their payments in national currencies despite Western sanctions. Rupee deposits by Indian companies in Russia have increased significantly. Economists believe that India's trade with Russia could grow further following Prime Minister Modi's recent visit to Moscow.

Current State of India-Russia Trade Payments

- **Increase in Payments:**

- India and Russia have doubled their trade payments in national currencies (rupee and rouble) despite Western sanctions.

- **Sberbank's Role:**

- Sberbank, Russia's largest bank, reports a doubling in payment volume and an 80% increase in transactions from January to June 2024 compared to the same period in 2023.

- **Rupee Deposits:**

- There has been a sixfold increase in corporate rupee deposits in Russia in 2024.

Challenges and Opportunities for India in Russia

Challenges:

- **Competition with China:**

- Chinese businesses have taken advantage of the sanctions to dominate the Russian market. China has bilateral trade with Russia worth \$240 billion, significantly higher than India's trade volume.

- **Currency Competition:**

- Indian businesses are sometimes forced to consider using the Chinese yuan, which indicates a challenge in promoting the rupee exclusively.

Opportunities:

- **Increase in Rupee Usage:**

- The sixfold increase in corporate rupee deposits in Russia since the start of 2024 shows growing trust in the Indian currency.

- **Prime Minister's Visit Impact:**

- Prime Minister Modi's recent visit to Moscow is described as crucial for advancing to a new level of economic cooperation

- **Market Vacuum:**

- The exit of Western companies from Russia creates opportunities for Indian products to fill the market gaps.

Prime Minister Modi's visit to Moscow have following impacts

- **Strengthened Economic Ties:**

- The visit marked a new level of economic cooperation between India and Russia.

- **Future Trade Goals:**

- Both leaders set a trade target of \$100 billion by 2030, emphasizing the potential growth in bilateral trade.

- **Sectoral Focus:**

- Key sectors for increased Indian exports include auto and aviation components, chemicals, microelectronics, and consumer electronics

Mains Point: India and Russia have doubled their payments in national currencies despite Western sanctions

2. Public spending must pivot to building human capital

Context: Macroeconomic differences between India and China

The article discusses China's growth driven by exports and state investments, leading to issues like ghost cities and overcapacity in sectors like electric vehicles. In contrast, India has lower domestic savings and investment but better GDP returns. It highlights India's

need to boost infrastructure and human capital investment to sustain growth.

Reasons for China's growth

- *Exports and Capital Spending:*

- China's rapid growth was powered by a consistent 8% net export surplus, amassing significant foreign exchange reserves.

- *Domestic Investments:*

- High domestic savings rates fueled investments in infrastructure and industry expansion.

- *State-Owned Enterprises:*

- Profits from these enterprises provided fiscal benefits, reinvested in physical capital, leading to a high investment-to-GDP ratio.

- *Challenges with Efficiency:*

- Despite high investment, there are criticisms of inefficiencies, such as the construction of "ghost cities" and overcapacity in the electric vehicle sector, indicating not all investments yielded high returns.

Main macroeconomic differences between India and China

- *Trade Balance:*

- India consistently faces a trade deficit, relying on foreign capital inflows of about 2-3% of GDP, contrasting China's historical 8% export surplus.

- *Investment Sources:*

- China's investments are largely fueled by state-owned enterprises and high domestic savings. In contrast, India's investment relies more on foreign capital and lower domestic savings.

- *Government Spending:*

- A significant portion of India's savings is consumed by government expenses like pensions and salaries, which differs from China's reinvestment of state-owned enterprise profits into further physical capital development.

- *Private Sector Role:*

Unlike China, India's industrial expansion is more dependent on the private sector, with limited state-owned enterprise influence.

India should focus on for growth

Increasing infrastructure spending within fiscal limits, unlike China's model which benefits from state-owned enterprise profits.

Expanding the manufacturing sector through private investments, facilitated by policies that improve the ease of doing business.

Innovating in areas like agro-based industries, green technologies, and digital services.

Significantly enhancing investment in education to build human capital, crucial for future job demands and economic growth.

Mains Point: Macroeconomic differences between India and China

3. Return on foreign currency assets doubles in two years

Context: Increase in India's foreign currency assets (FCA)

The return on India's foreign currency assets (FCA) has doubled over the past two years. As of March 31, 2024, the total value of securities in FCA was \$468.98 billion.

Interest Rate Impact

RETURN ON FCA	
Year	Return (%)
2019-20	2.65
2020-21	2.10
2021-22	2.11
2022-23	3.73
2023-24	4.21

Source: RBI

Return on foreign currency assets doubles in two years

i) Due to rising interest rates in the US and other developed countries, the return

on FCA increased to 4.21% in March 2024 from 2.11% in March 2022. This resulted in the RBI earning over \$19 billion in interest income for the fiscal year ending in March 2024.

ii) The rate of return on FCA was 3.73% in FY2023, 2.10% in FY2021, and 2.65% in FY2020.

Gold Reserves of India

i) During FY24, the RBI reduced gold held abroad by around 50 tonnes, bringing the total to 387.26 metric tonnes. RBI reduced its gold holding due to high cost of keeping gold abroad.

ii) As of March 2024, the RBI held 822.10 metric tonnes of gold, with 408.31 metric tonnes held domestically and 26.53 metric tonnes as gold deposits.

About FCA

i) India's Foreign Exchange Reserves comprise Foreign Currency Assets, Gold, SDR's and Reserve Bank position with International Monetary Fund (IMF).

ii) Foreign currency assets include investments in US Treasury bonds, Bonds/Treasury Bills of other selected Governments, deposits with foreign central banks, foreign commercial banks etc.

Composition of FCA:

i) As of March 2024, out of the total FCA of \$570.95 billion–

a) \$468.99 billion was invested in securities.

b) \$62.17 billion was deposited with other central banks and the BIS.

c) \$39.79 billion comprised deposits with commercial banks overseas.

ii) A small portion of the reserves is managed by external asset managers to explore new strategies and diversify the portfolio. These investments are governed by the RBI Act, 1934.

Prelims Point: foreign currency assets

Mains Point: Increase in India's foreign currency assets

4. RBI revises rules on fraud risk management

Context: RBI updated rules on fraud risk management

The Reserve Bank of India (RBI) has updated its rules on fraud risk management for various financial entities.

RBI Revises Fraud Risk Management Rules

a. The revised rules apply to commercial banks (including regional rural banks), All India Financial Institutions, urban, state, and central cooperative banks, non-banking finance companies (NBFCs), and housing finance companies.

b. The RBI issued three new master directions to replace the older ones. These directions are based on a thorough review of the previous rules and current issues.

c. The new rules emphasize principles and guidelines to strengthen fraud risk management and enhance the role of the Board in governance and oversight.

d. Regulated Entities (REs) must follow principles of natural justice before labeling individuals or entities as fraudulent, in line with the Supreme Court's March 2023 judgment in the case of State Bank of India versus Rajesh Agarwal.

e. The RBI has withdrawn 36 existing circulars related to fraud risk management to simplify rules and reduce the compliance burden on financial entities.

Mains Point: RBI updated rules on fraud risk management

5. Imports continue to outpace growing exports; trade deficit widens by 9.4%

Context: Status of India's Merchandise and Services Export

The Commerce Ministry has reported that India's merchandise exports has grown for the third consecutive month in June. It has risen by 2.55% to \$35.2 billion.

Status of India's Merchandise and Services Export

1. June 2024 Trade Performance

- i) Merchandise exports grew by 2.55% to \$35.2 billion.
- ii) Imports increased by 5% to \$56.2 billion.
- iii) The trade deficit widened by 9.4% compared to the previous year.
- iv) June 2024's exports and imports were the second highest in 10 years, second only to the figures in June 2022.
- v) Major growth drivers included engineering goods (10.3% increase), electronics goods (16.9% increase), drugs and pharmaceuticals (9.9% Increase), chemicals (3.3% increase), and coffee (70% increase).
- vi) Petroleum exports decreased by 18.3% to \$5.5 billion. and petroleum imports increased by 19.6% to \$15.05 billion.

2. Record Highs in Exports

- i) Total merchandise and services exports reached \$200.3 billion in the first quarter of 2024-25, surpassing the previous high of \$197.1 billion in 2022-23.
- ii) Services exports are estimated at \$30.3 billion, an 8.9% increase from the previous year.

3. Future Prospects

- i) If growth trends continue, India could exceed \$800 billion in total exports this year.
- ii) The government is targeting six key sectors and 20 countries to boost exports.

4. Past Performance

Total exports in 2023-24 reached \$778.2 billion, a 0.42% increase from the previous

year. To reach the \$800 billion mark in 2024-25, exports need to grow by 2.8%.

Prelims Point: Status of India's Merchandise and Services Export

Mains Point: Status of India's Merchandise and Services Export

6. Spice route: Tackle barriers faced by turmeric exports

Context: Challenges in India's Spice Exports India, known as the "Spice Bowl of the World," has seen spice exports triple from 575,000 metric tonnes in 2010-11 to 1.54 million MT by 2023-24. Turmeric is a key export, with 324,000 hectares cultivated, producing 1.16 million tonnes in 2022-23, which is 75% of global supply. In 2022-23, India exported over 154,000 tonnes of turmeric worth \$207.45 million, with projections to reach \$1 billion by 2030. The US is the top importer, holding a 20% share, followed by Bangladesh, Iran, and the UAE.

Challenges in the Spice Export Sector

1) **Demand-side Challenges:** Demand for turmeric is declining in developed countries like the Netherlands and Germany as they increasingly meet their needs domestically. As a result, these countries are becoming major exporters of turmeric within the EU.

2) Supply-side Challenges:

A) There is growing competition from smaller countries like Fiji, which was the fourth-largest turmeric exporter in 2022-23, as well as from Myanmar, Vietnam, and Indonesia.

B) The share of turmeric in total spice production dropped from 11% to 8.3% between 2021-22 and 2022-23, while its share in the total cultivation area decreased from 7.6% to 6.3%.

3) Quality Control Issues:

A) Indian spices face rejections in key markets due to phytosanitary issues, such as toxins, high maximum residue limits (MRL), and adulteration. For example, Singapore and Hong Kong recently banned some Indian spice mixes.

B) Issues persist despite the presence of quality control bodies like the Spices Board of India and Agricultural and Processed Food Products Export Development Authority.

What should be the way forward?

1) Supply Chain Evaluation:

There is a need to conduct a thorough assessment of the spice supply chain to identify quality gaps and reduce rejections.

2) Regulatory Reforms:

There is a need to create a single regulatory body with the authority to monitor and ensure high-quality laboratory testing and product traceability before exports.

3) Compliance and Standards:

Encourage exporters and supply chain partners to follow Good Agricultural Practices and adhere to standards set by the International Organization for Standardization and Hazard Analysis and Critical Control Points.

4) Stakeholder Coordination:

A) Key stakeholders like policymakers, traders, corporations, and processors need to collaborate on a common platform.

B) Utilize events like the World Spice Congress and Global Turmeric Conference for knowledge sharing and capacity building.

5) International Agreements

A) Focus on signing mutual recognition agreements (MRAs) for harmonization of spice standards. For example, the recent MRA for organic products

signed between India and Taiwan in 2024 is an example of this approach

B) Engage in discussions for trade facilitation and push for harmonized testing and certification standards in trade agreements.

Mains Point: Challenges in India's Spice Exports.

7. Intergenerational equity as tax devolution criterion

Context: Intergenerational and Intragenerational Fiscal Equity in India

The article discusses how tax revenue from the central government is distributed among states in India. It emphasizes balancing fairness between generations and between different states' economic statuses, suggesting changes in the criteria to ensure both current and future financial equity.

Principle of Intergenerational and Intragenerational Fiscal Equity

- **Intergenerational Fiscal Equity:**
 - This principle ensures that current government spending does not become a financial burden on future generations. If a government covers its expenses through borrowing, it means future taxpayers will have to pay more in taxes. For instance, during the 14th Finance Commission period, higher borrowing by states could lead to higher future taxes.

- **Intragenerational Fiscal Equity:**
 - This focuses on fair distribution of resources among different states within the same generation. High-income states, such as Maharashtra and Tamil Nadu, generate substantial tax revenue but receive fewer Union transfers, unlike states like Bihar and Uttar Pradesh, which rely more on Union money.

Challenges arises from current fiscal policies

- *Intergenerational Inequity:*

○ Current fiscal policies, like funding government expenses through borrowing, potentially burden future generations with higher taxes. This creates a cycle where future taxpayers bear the cost for today's spending.

▪ *Disparity in State Funding:*

○ High-income states like Gujarat and Maharashtra, which contribute significantly through taxes, receive fewer Union transfers compared to their contributions. They financed 59.3% of their revenue expenditure through their own taxes, while low-income states like Bihar and Uttar Pradesh financed only 35.9% and depended heavily on Union transfers.

▪ *Legal Limit Breaches:*

○ Reduced Union transfers force some states to exceed their Fiscal Responsibility Act limits, risking fiscal sustainability.

Should be Done

▪ *Adjust the Tax Distribution Formula:*

○ The Finance Commission should revise the criteria used to distribute Union tax revenue, incorporating more fiscal variables that reflect actual state performance and needs. This would ensure fairer distribution between states.

▪ *Increase Weights for Fiscal Indicators:*

○ Fiscal discipline and tax effort should carry more weight in the distribution formula. This adjustment would encourage states to improve fiscal management and revenue collection, thus ensuring more sustainable finances.

▪ *Enhance Support for High-Income States:*

○ High-income states like Maharashtra, which financed 59.3% of their expenditure through their own revenues, should receive fairer Union transfers to acknowledge their contribution and prevent fiscal imbalances.

▪ *Legal and Fiscal Policy Reforms:*

○ Implement policies that prevent excessive borrowing and ensure

intergenerational equity. This includes enforcing Fiscal Responsibility Acts strictly and adjusting policies to avoid future generations being burdened by current fiscal decisions.

Mains Point: Intergenerational and Intragenerational Fiscal Equity in India

8. World Bank Group Guarantee Platform Goes Live

Context: World Bank Group Guarantee Platform

The World Bank Group Guarantee Platform was recently opened for business in 2024. Its purpose is to simplify and streamline the guarantee issuance process.

About the Platform

1) The platform is housed at the Multilateral Investment Guarantee Agency (MIGA).

2) It was initiated in 2024.

3) It combines products and expertise from the World Bank, International Finance Corporation (IFC), and MIGA.

Goal:

The goal is to increase annual guarantee issuance to \$20 billion by 2030. This platform serves as a one-stop shop for all World Bank Group guarantee needs.

Key Features

The platform offers a simplified menu of guarantee options. It provides three types of coverage:

1. **Credit Guarantees:** These guarantees are for loans to the public or private sectors.

2. **Trade Finance Guarantees:** These are for trade finance projects involving public entities.

3. **Political Risk Insurance:** This insurance protects against non-commercial risks in private sector projects or public-private partnerships.

Significance

4. The World Bank Group Guarantee platform consolidates all guarantee products and experts from across the World Bank Group institutions at MIGA.

5. It provides a simplified and comprehensive menu of guarantee solutions, enabling clients to select the instrument that best suits their needs.

6. The platform streamlines processes, removes redundancies and provides greater accessibility by de-risking investments in developing countries.

Prelims Point: World Bank Group Guarantee Platform

Mains Point: World Bank Group Guarantee Platform

9. National Bank for Financing Infrastructure and Development (NaBFID)

Context: National Bank for Financing Infrastructure and Development (NaBFID) The government wants to increase the capital base of the National Bank for Financing Infrastructure and Development, or NaBFID, to 1 trillion through support from banks.

About National Bank for Financing Infrastructure and Development (NaBFID)

1. It was set up in 2021 under the National Bank for Financing Infrastructure and Development Act, 2021.

2. It is a development Finance Institution in India which focuses on long-term infrastructure financing.

3. It is regulated and supervised by the Reserve Bank of India (RBI) as an All-India Financial Institution (AIFI).

Objective

Its capital base should be increased to 1 trillion INR with support from banks.

Purpose

To provide specialized financing for infrastructure development in India.

Goals

1) Addressing gaps in long-term non-recourse finance for infrastructure.

2) Strengthening the development of bonds and derivatives markets in India.

3) Boosting the country's economy sustainably.

About Development Finance Institutions (DFIs):

1) It is an organization owned by the government or public institutions to fund infrastructure and large-scale projects.

2) They step in where it is often unviable for large banks to lend due to project scale and long-term nature.

3) Types of Funds Provided: They provide medium-Term funds including financing for 1-5 years and Long-Term funds including financing for more than 5 years.

Prelims Point: National Bank for Financing Infrastructure and Development (NaBFID)

Mains Point: National Bank for Financing Infrastructure and Development (NaBFID)

10. India's garment export woes self-inflicted: report

Context: Status of Garment sector in India Recently, Global Trade Research Initiative (GTRI) published its report.

Status of Garment sector in India

1. A report by the Global Trade Research Initiative (GTRI) highlights that India's garment export sector is struggling due to high duties, import barriers, and complex customs procedures.

2. In 2023-24, garment exports were \$14.5 billion, down from \$15 billion in 2013-14, while Vietnam and Bangladesh saw significant growth in their exports.

Key highlights of the report:

1. Comparative Decline:

- Vietnam's garment exports grew by 82% to \$33.4 billion, and Bangladesh's by 70% to \$43.8 billion, whereas India's exports decreased.
2. Import Restrictions: High duties and complicated import procedures for raw materials, especially synthetic fabrics, are major hurdles for Indian exporters.
 3. Domestic Issues: Quality control orders for fabric imports have increased costs for exporters, forcing reliance on more expensive domestic supplies.
 4. Procedural Complexity: Outdated customs and trade procedures require meticulous tracking of all imported materials, adding to exporters' burdens.
 5. PLI Scheme Ineffective: The production-linked incentive (PLI) scheme for textiles, launched in 2021, has not attracted significant investment and needs revision.
 6. Rising Imports: India's garment and textiles imports grew to nearly \$9.2 billion in 2023, with further increases expected if export declines are not addressed.
- of achieving over 7% growth in the coming years.
- 2) The economy has largely recovered to pre-COVID growth trends without sustaining permanent damage.
 - 3) The Economic Survey emphasizes the need to address inequality and unemployment as top policy priorities. It encourages the Central and State governments to reduce regulatory burdens on businesses to foster economic growth.
 - 4) The Survey suggests several steps to address inequality, improve the health of the young population, bridge the education-employment gap, and reboot India's skilling initiatives to better align with industry needs.
 - 5) Private Sector's Role: Corporates benefit from increased demand driven by employment and income growth. The Survey warns against short-term thinking that could weaken economic linkages.
 - 6) The Survey notes that reforms such as the Goods and Services Tax (GST) and the Insolvency and Bankruptcy Code are maturing and yielding results. It calls for "next-gen" reforms that are bottom-up in nature to achieve sustainable and inclusive growth.

Mains Point: Status of Garment sector in India

11. Economic Survey 2023-24: Indian economy likely to grow by 6.5% to 7% this year

Context: Key Highlights of Economic Survey 2023-24

The recently released Economic Survey projects India's real GDP growth to be between 6.5% and 7% in 2024-25.

Key Highlights of Economic Survey 2023-24:

- 1) The Indian economy is expected to grow by 6.5% to 7% this year, with prospects

- 7) Strategy for Future Growth: The Economic Survey proposes a six-pronged strategy:

- i) Boost private sector investments organically and steadily.
- ii) Finance the green transition.
- iii) Remove obstacles for micro, small, and medium enterprises (MSMEs).
- iv) Tap into agriculture's growth potential with intelligent, farmer-friendly policies.
- v) Enhance state capacity.

- vi) Foster consensus among governments, businesses, and social sectors.
- 8) Investment Challenges:
- i) While improved balance sheets are expected to drive private sector investment, concerns over cheaper imports from countries with excess capacity, such as China, remain.
 - ii) Attracting foreign direct investment (FDI) will be challenging due to higher interest rates and developed countries' incentives for domestic investments.
- 9) Land and Infrastructure Reforms:
- i) The Survey highlights the need to deregulate land use norms for factories and consolidate farmland to improve crop yields.
 - ii) However, it does not mention reforms to land acquisition laws, despite their importance for infrastructure projects.
- 10) The Economic Survey concludes that sustained growth of over 7% in the medium term is achievable with continued reforms.
- 11) A tripartite compact between the Centre, States, and the private sector is essential for maintaining this growth trajectory.

Economic Survey 2023-24 highlights on Railway Safety and Signalling

The economic Survey 2023-24 highlighted limited progress on Railway Safety Initiatives.

Key Points from Economic Survey 2023-24 on Railway Safety and Signalling:

1. The Economic Survey 2023-24 emphasis on the slow deployment of the automatic train protection system, Kavach, and the upgrade of signaling systems.

2. Deployment of Kavach:

Kavach is an automatic train protection (ATP) system which is deployed on 1,465 route km in the South-Central Railway. This accounts for only 2.14% of India's total railway network (68,426 route km) and 7,349 railway stations.

3. Mechanical to Electronic Signalling:

Out of 17 operational railway zones in India, eight zones have transitioned from mechanical to electronic signalling.

4. By FY23, 2,981 stations (40% of 7,325 stations) had switched to electronic interlocking systems. In FY24, an additional 443 stations made the switch, increasing the total to 46% of stations with electronic interlocking.

5. Electronic Interlocking (EI) Systems:

EI systems were introduced in India 12 years ago and have been implemented at 3,424 stations by March 31, 2024.

6. Automatic Block Signaling (ABS):

ABS is a low-cost signaling solution that has been provided on 582 route km during FY24. As of March 31, 2024, ABS covers 4,431 route km, comprising 6.47% of the Indian Railways network.

7. Capital Expenditure (Capex) Deployment:

Capex deployment in railways has increased by 77% over the past five years, amounting to ₹2.62 lakh crore in FY24. Significant investments were made in the construction of new lines, gauge conversion, and doubling of tracks.

Prelims Point: Key Highlights of Economic Survey 2023-24

Mains Point: Key Highlights of Economic Survey 2023-24

12. Govts have limited impact on jobs: Policy reforms would work better than programmes or projects

Context :Government's new announcements for the labor market

The article discusses how government programs aimed at improving the labor market may not be effective. It suggests that policy improvements to create a better business environment are more impactful than direct interventions, like forced internship programs or fiscal subsidies.

Government's new announcements for the labor market

The government announced new programs to improve the labor market.

One key initiative is an internship program in the top 500 companies, aiming to process 10 million interns over five years. The program will provide ₹60,000 per intern per year, funded by the government and corporate social responsibility (CSR) contributions.

- **Voluntary Participation:**

- Companies' involvement is voluntary.

- **Centralized Portal:**

- Establishment of a centralized online portal for applications.

- **Eligibility:**

- Numerous rules about applicant eligibility will be defined.

Criticisms of this announcement

- **Limited Impact:**

- The program aims to process 10 million interns over five years, which is a small number compared to the needs of the Indian labor market.

- **Voluntary Participation:**

- The sentence "Participation of companies is voluntary" highlights that companies already have internship programs and may find centralized portals and subsidy processes daunting.

- **Potential Coercion:**

- Concerns arise that the voluntary nature might turn into coercion, deterring investment and leading to increased bureaucratic control.

- **Inefficiency of Direct Intervention:**

- Direct fiscal interventions, like the Production-Linked Incentive (PLI) scheme, are costly. For instance, a 5% PLI on \$1 trillion exports would cost \$50 billion.

- **Historical Context:**

- Economic growth from 1991 to 2011 was driven by policy improvements,

reducing customs duties, and ensuring rule of law, rather than direct government intervention.

Way forward

Policymakers should focus on improving the environment for private investment. This involves reducing policy-related barriers and ensuring stable, long-term policies. Direct interventions, like the internship program or PLI, are less effective than creating conditions where private firms want to invest.

Prelims Point: Government's new announcements for the labor market

Mains Point: Government's new announcements for the labor market

13. Deficit numbers signal: PRUDENT PATH

Context: India has lowered its fiscal deficit estimate to 4.9% of GDP

The article discusses how Finance Minister Nirmala Sitharaman lowered India's fiscal deficit estimate to 4.9% of GDP for the current financial year. This was achieved through increased revenue receipts and controlled spending, with significant contributions from higher RBI dividends and reduced subsidies.

Current status of India's fiscal deficit

- *Fiscal Deficit Estimate:*

- Reduced to 4.9% of GDP from 5.1%.

- *Absolute Terms:*

- Projected at ₹16.13 trillion, down from ₹16.85 trillion.

Future Target:

- Fiscal deficit to be below 4.5% by FY26, with a declining central government debt to GDP ratio from FY27.

India has lowered its fiscal deficit estimate to 4.9% of GDP for the current financial year

Revenue Receipts Growth:

Revenue receipts are projected to increase by 14.7%, reaching ₹31.29 trillion.

a) RBI Dividend:

A major boost came from the Reserve Bank of India's dividend, which was ₹11 trillion, a 141% increase from the previous year.

Controlled Spending:

Total government expenditure is set at ₹48.21 trillion, marking an 8.5% rise from the previous year.

a) Capital Expenditure: Maintained at ₹11 trillion, showing a focus on long-term investments.

b) Reduced Subsidies: Lower subsidy spending has been crucial.

Fertilizer Subsidy:

- Reduced by 13% to ₹1.64 trillion.

Food and Petroleum Subsidies:

- Also saw reductions from FY24 levels.

Market Borrowing:

- The gap between receipts and spending will be partly financed by borrowing ₹11.63 trillion from the market, slightly less than the ₹11.75 trillion projected earlier.

Impacts of this change

- *Market Confidence:*
 - The lowered fiscal deficit sends a strong signal of fiscal prudence to markets and rating agencies.
- *Bond Yields:*
 - Initially, government bond yields fell to 6.93% but later stabilized at 6.97%.
- *Revenue Growth:*
 - Higher revenue receipts, boosted by a ₹2.11 trillion RBI dividend, contribute positively to fiscal health.
- *Future Fiscal Targets:*
 - Commitment to reducing the deficit below 4.5% by FY26 ensures a stable economic outlook.

Mains Point: India has lowered its fiscal deficit estimate to 4.9% of GDP

14. An overdue pivot to human capital and employment

Context: Focus of the India's budget 2024-25

This article discusses the first of Narendra Modi's third term. It emphasizes job creation, small business support, and fiscal responsibility. The budget includes skilling programs, collateral-free loans for MSMEs, and a focus on sustainable growth and energy security.

Focus of the India's budget 2024-25

Job Creation:

The budget emphasizes creating jobs through employment and skilling incentives. It includes a national apprenticeship program and internships for 10 million youth in top-tier companies.

Support for Small Businesses:

The budget introduces a collateral-free loan scheme and government credit guarantees for small businesses. It also facilitates their access to export markets through e-commerce linkages, recognizing their significant role in value addition, exports, and employment.

Fiscal Responsibility:

The budget demonstrates fiscal restraint with conservative revenue assumptions. Half of the fiscal surplus from the Reserve Bank of India is used to reduce the deficit, emphasizing fiscal consolidation.

Taxation:

The budget increases the tax on capital gains. It proposes widening the direct tax net and raising the top tax tier for incomes above ₹1 crore. The import duty on gold is reduced from 15% to 6% to prevent duty leakage and smuggling.

Human Capital Investment:

The budget stresses the need for massive investment in human capital. Public funds are necessary for primary and secondary education, while higher education and

skilling should be funded through student loans.

Innovation and Infrastructure:

Public-private partnerships are promoted for small modular nuclear reactors and the space economy. The budget also addresses India's transition away from fossil fuels, aiming for sustainable growth.

Agricultural Initiatives in the 2024-25 Union Budget:

The 2024-25 Union Budget introduces ambitious agricultural initiatives alongside modest financial allocations. It highlights research, sustainable practices, and digital infrastructure, with a focus on natural farming and crop diversification. However, the effectiveness of these programs could be hindered by budget constraints.

Initiatives announced in the budget

1) Specific Initiatives:

Release of 109 high-yielding, climate-resilient varieties of 32 crops

2) Natural Farming

-Budget plans to transition 10 million farmers to natural farming practices over two years, providing certification and branding support. Additionally, the budget proposes establishing 10,000 bio-input resource centers to further promote natural farming.

3) Large Scale Vegetable Cluster

-The budget proposed a strategy for self-sufficiency in pulses and oilseeds production, reducing India's dependence on imports. It also suggested establishing large-scale vegetable clusters near major consumption centers to stabilize prices amid recent volatility in perishable goods

4) Digital Public Infrastructure (DPI)

- This initiative involves digital crop surveys in 400 districts and registering 60 million farmers and their lands digitally. It also includes distributing Kisan Credit Cards to farmers in five states.

Issues with budgetary allocation

1) Inadequate Allocation-

A) The budget for apex research institutions like ICAR, central agricultural universities, and NAAS is Rs 7,103 crore for 2024-25, down from Rs 7,248 crore last year.

B) In Rastriya Krishi Vikas Yojana, the budget allocation increased minimally from Rs 14,216 crore in 2023-24 to Rs 15,000 crore in 2024-25.

C) National Mission on Natural Farming-The budget allocated is Rs 366 crore, down from Rs 459 crore allocated last year.

D) PM-KISAN, saw no increase in allocation for 2024-25. This lack of adjustment for inflation over five years could lead rural households to question the effectiveness of non-indexed cash transfer schemes.

2) Lack of Clear Roadmap-The budget for agriculture and allied sectors, covering research, fisheries, animal husbandry, and dairying, rose by 6%. However, addressing the policy challenge of reducing subsidies and increasing investments in agriculture was not outlined in the budget.

3) Allocation Prioritization in Budget - According to the International Food Policy Research Institute, the budget allocations prioritize crops like cereals and food grains based on calories and area. However, it provides little support for high value produce such as fruits, which are driving agricultural growth.

Social Sector Allocations in Budget 2024

The Budget 2024 continues the trend of previous years regarding social sector allocations, despite claiming to focus on youth, farmers, women, and the poor. The Economic Survey chapter "Social Sector: Benefits that Empower" suggests progress

in welfare programs, but the budget allocations tell a different story.

Allocations under various social sectors and employment schemes in the new budget

1) Education-

School Education- There has been a nominal increase of ₹5,000 crore in allocation, with higher estimated 'recoveries'. This indicates a rise in fees and self-financing schemes.

Higher Education -There was a minor increase of ₹3,000 crore in allocation, with a similar trend of higher estimated 'recoveries'.

2) Health and Family Welfare

There was a marginal increase of ₹1,500 crore compared to the previous year, raising concerns about the adequacy of funding for healthcare initiatives.

A) Food Subsidy: There was almost no increase, despite the need to expand coverage to current population levels and address the anticipated rise in economic costs of food grains. The current PDS still relies on 2011 Census population figures.

B) POSHAN Scheme (School Mid-Day Meal) -There was a slight increase from ₹11,600 crore to ₹12,467 crore, but it remains below the actual expenditure of ₹12,681 crore in 2022-23.

C) Saksham Anganwadi Scheme-There was a marginal increase from ₹20,554 crore to ₹21,200 crore. However, there are no provisions for higher salaries for Anganwadi workers (unchanged since 2018), increased honorarium for mid-day meal cooks, or enhanced allocations for supplementary nutrition for children.

D) Samarthya (Including PMMVY and Creche Schemes)- The allocation was

reduced to ₹2,517 crore from ₹2,582 crore. The PMMVY excludes at least half of eligible women, and the amount of ₹5,000 per pregnant woman has remained unchanged since 2017.

3) Rural Employment and Poverty Alleviation

A) MGNREGA-The allocation remains unchanged from the revised estimates (RE) of the previous year, impacting state implementation and work availability due to its demand-driven nature.

B) The 'Prime Minister's Package for Employment and Skilling'-It includes government-sponsored internships, incentives for EPFO enrolments to formalize jobs, and skill-development programs. This package totals ₹2 lakh crore over five years, largely reliant on industry response. However, budgetary allocations for these initiatives seem insufficient.

4) Social Security and Pensions

A) National Social Assistance Programme (NSAP): The budget remains unchanged at ₹9,652 crore, which is effectively a reduction in real terms considering inflation. There's no room for expanding coverage or adjusting pension amounts, as the central contribution of ₹200 per person per month has remained unchanged since 2009.

Issues with these allocations

Shift Towards Contributory Schemes and Privatization

-The government is cutting benefits arbitrarily, favoring contributory schemes like the Atal Pension Yojana. In education and health sectors, there's a clear trend towards privatization and prioritizing cost-effectiveness, as emphasized in the Economic Survey's new welfare strategy.

Market Principles in Social Services

-This approach ignores the difficulties of using market principles in social services and doesn't account for the long-term economic benefits of enhancing human development outcomes.

3) Private Sector in Employment

-The private sector is important for tackling the employment challenge and is mandated to allocate CSR funds towards this effort. However, this means CSR funds, originally intended for minimal societal contributions, are now required to subsidize their own wages.

Tax simplification measures for settling direct tax disputes

The Union Budget proposes several tax simplification measures, including a comprehensive review of the Income Tax Act, decriminalisation of late TDS payments, and the Vivaad Se Vishwas Scheme 2024 for settling direct tax disputes.

About Tax Simplification Measures:

1. A new version of the dispute resolution scheme, Vivad se Vishwas 2.0, will be introduced to provide a mechanism for the settlement of direct tax disputes and reduce litigation.

2. Decriminalisation Initiatives:

- i) Non-reporting of small foreign assets will be decriminalised.
- ii) A simplified tax regime for charities will be introduced.
- iii) Limits for reassessments will be adjusted to reduce disputes.

3. Legislative Changes for Benami Transactions: The Budget proposes legislative changes to grant immunity to benamidars or any person other than the beneficial owner who turns approver under the Benami Transactions (Prohibition) Act, 1988.

4. Simplification of Tax Regime:

i) The Finance Bill will simplify the tax regime for charities, TDS rate structure, reassessment provisions, search provisions, and capital gains taxation.

ii) Two tax exemption regimes for charities will be merged into one.

5. Transition for Charitable Trusts:

i) The current two main regimes for trusts, funds, or institutions to claim exemption under the Income Tax Act will be merged.

ii) The process will involve the gradual transition of trusts from the first regime to the second, along with rationalising application procedures and timelines for registration and approval of benefits.

6. Decriminalisation of Non-Reporting of Small Foreign Assets:

i) Indian professionals working in multinationals who receive ESOPs and invest in social security schemes and other movable assets abroad face penal consequences under the Black Money Act for non-reporting.

ii) Non-reporting of movable assets up to ₹20 lakh will be de-penalised.

7. Decriminalisation of Late Payment of TDS:

i) Late payment of TDS will be decriminalised if payment is made before the prescribed time for filing the TDS statement.

ii) Time limits for reassessment will be reduced from ten years to five years, with rationalisation of reassessment procedures.

iii) Assessments can be reopened beyond three years from the end of the assessment year only if the escaped income is ₹50 lakh or more, up to a maximum period of five years.

iv) For search cases, the time limit will be reduced from ten years to six years before the year of search.

8. Adjustments to TDS Rates:

- i) The 5% TDS rate will be reduced to 2% for several transactions, including payment of insurance commission, life insurance policy payments, commission on sale of lottery tickets, brokerage payments, and rent payments by certain individuals or HUF. These changes will be effective from October 1.
- ii) The 20% TDS rate on repurchase of units by mutual funds or UTI will be withdrawn.
- iii) The TDS rate on e-commerce operators will be reduced from 1% to 0.1%.

9. Increased Monetary Limits for Appeals:

Monetary limits for filing appeals related to direct taxes, excise, and service tax will be increased to ₹60 lakh for tax tribunals, ₹2 crore for high courts, and ₹5 crore for the Supreme Court. Current limits are ₹50 lakh, ₹1 crore, and ₹2 crore, respectively.

Pradhan Mantri Janjatiya Unnat Gram Abhiyan

The government will launch the Pradhan Mantri Janjatiya Unnat Gram Abhiyan to enhance the socio-economic conditions of tribal communities.

About Pradhan Mantri Janjatiya Unnat Gram Abhiyan

Aim

- To provide saturation coverage for tribal families in tribal-majority villages and aspirational districts, covering 63,000 villages and benefiting 5 crore tribal people.

Other Important Tribal Welfare schemes of the Central Government

- 1) The Eklavya Model Residential Schools (EMRS), established to provide quality education to ST students in residential schools, were allocated Rs 6,399 crore, a rise of Rs 456 crore over last year's allocation.

- 2) The PM Janjatiya Vikas Mission (PMJVM), aimed at promoting livelihoods and entrepreneurship among ST communities, had its budget reduced by Rs 136.17 crore in this Budget.
- 3) The PM DAKSH scheme, focusing on skill development for SC and ST communities, saw its budget increase from Rs 92.47 crore to Rs 130 crore.

Credit Guarantee Scheme for MSMEs

Finance Minister Nirmala Sitharaman recently unveiled several key measures aimed at boosting Micro, Small, and Medium Enterprises (MSMEs).

About Credit Guarantee Scheme for Machinery

1. A new credit guarantee scheme for purchasing machinery and equipment without collateral or third-party guarantees has been introduced.
2. The scheme will pool credit risks of MSMEs, providing a guarantee cover of up to Rs 100 crore per applicant through a self-financing guarantee fund.
3. Borrowers will need to pay an upfront guaranteed fee and an annual fee based on the reducing loan balance.

Measures to boost Micro, Small, and Medium Enterprises

1. Public Sector Banks (PSBs) will now assess credit eligibility for MSMEs themselves and this will eliminate the need for external assessments.
2. The new model will rely on the digital footprints of MSMEs, providing a significant improvement over traditional methods based on asset or turnover criteria.
3. This model will also cover MSMEs without formal accounting systems, broadening the scope of eligible enterprises.
4. The limit for Mudra loans under the PM Mudra Yojana has been increased

from Rs 10 lakh to Rs 20 lakh for entrepreneurs who have successfully repaid previous loans under the 'Tarun' category.

Prelims Point: Focus of the India's budget 2024-25

Mains Point: Focus of the India's budget 2024-25

15. Five new schemes to aid job creation

Context: Employment-Linked Incentive Schemes

The Union Budget allocates ₹2 lakh crore for employment and skilling schemes.

About Employment-Linked Incentive Schemes

- 1) The Centre will implement three schemes for "employment-linked incentive" as part of the Prime Minister's package, focusing on enrolment in the Employees' Provident Fund Organisation (EPFO).

First Scheme

- This scheme will provide one-month wage to all persons newly entering the workforce in all formal sectors. The direct benefit transfer of one-month salary in 3 instalments to first-time employees, as registered in the EPFO, will be up to Rs. 15,000. The eligibility limit will be a salary of Rs. 1 lakh per month. The scheme is expected to benefit 210 lakh youth.

Second scheme

- An incentive will be provided at specified scale directly both to the employee and the employer with respect to their EPFO contribution in the first 4 years of employment. The scheme is expected to benefit 30 lakh youth entering employment, and their employers.

Third scheme

- This employer-focused scheme will cover additional employment in all sectors. All additional employment within a salary of Rs.1 lakh per month will be counted. The

government will reimburse to employers up to Rs. 3,000 per month for 2 years towards their EPFO contribution for each additional employee. The scheme is expected to incentivize additional employment of 50 lakh persons.

2) Skilling programme

- A new centrally sponsored scheme will be launched to skill 20 lakh youth over a 5-year period. 1,000 Industrial Training Institutes will be upgraded in hub and spoke arrangements with outcome orientation.

3) Internship in Top Companies

- A comprehensive scheme for providing internship opportunities in 500 top companies to 1 crore youth in 5 years. They will gain exposure for 12 months to real-life business environment, varied professions and employment opportunities. An internship allowance of Rs. 5,000 per month along with a one-time assistance of Rs. 6,000 will be provided. Companies will be expected to bear the training cost and 10 per cent of the internship cost from their CSR funds.

Mains Point: Employment-Linked Incentive Schemes

16. Govt looks to boost e-commerce exports, will set up PPP hubs along lines of Southeast Asian countries

Context: Establishment of e-commerce export hubs

Finance Minister Nirmala Sitharaman announced the establishment of e-commerce export hubs across the country in public-private partnership (PPP) mode during the Union Budget presentation. These hubs will be modeled after successful Southeast Asian countries benefiting from e-commerce export growth.

Current Export Challenges

i) Indian goods exports are facing disruptions due to external shocks such as the Russia-Ukraine war, the Red Sea crisis, and container shortages stemming from US-China trade tensions.

ii) Indian goods exports declined by 5% last financial year.

MSMEs and Artisan Support:

i) The initiative aims to enable Micro, Small, and Medium Enterprises (MSMEs) and traditional artisans to sell their products in international markets.

ii) The hubs will offer a seamless regulatory and logistic framework to facilitate trade and export-related services under one roof.

Comparison with Other Countries

i) While MSMEs and artisans in China, South Korea, Japan, and Vietnam have seen significant export growth through e-commerce, India's e-commerce exports stand at \$5 billion, a small fraction of its total goods exports of \$450 billion.

ii) In contrast, China's e-commerce exports have surpassed \$300 billion.

Policy Enhancements

i) The Commerce and Industry Ministry's Foreign Trade Policy (FTP) increased the consignment-wise cap on e-commerce exports through courier from ₹5 lakh to ₹10 lakh.

ii) The ministry projects e-commerce export potential of \$200 to \$300 billion by 2030.

Industry Potential

i) India's e-commerce industry is dominated by small businesses exporting items valued between \$25 and \$1,000, including handicrafts, art, books, ready-made garments, gems, and jewellery.

ii) According to the Global Trade Research Initiative (GTRI), this segment has the potential to grow faster than IT exports did in the early 2000s.

Need for Separate E-Commerce Export Policy

i) Current e-commerce export provisions in India are a patchwork of rules designed for regular B2B exporters, creating compliance burdens for small firms.

ii) The GTRI report recommends a separate e-commerce export policy to address these issues comprehensively.

Southeast Asia's E-Commerce Growth

i) McKinsey & Company reported that Southeast Asia's e-commerce market has accelerated since the mid-2010s, further propelled by the COVID-19 pandemic.

ii) From 2016 to 2021, the total value of e-commerce sales in Southeast Asia grew fivefold, or 40% annually, with e-commerce's share of all retail sales surging from 5% to 20%.

Mains Point: Establishment of e-commerce export hubs

17. Govt takes a big leap towards digitising agriculture

Context: Government Takes Major Step Towards Digitising Agriculture

Recently, Union Finance Minister Nirmala Sitharaman announced the rollout of Digital Public Infrastructure (DPI) for the agricultural sector.

About Digital Public Infrastructure (DPI) in Agriculture

Digital Public Infrastructure (DPI) in agriculture will help farmers and their land in 400 districts during the Kharif season.

Aim:

DPI aims to help farmers with new digital services by providing important information about crops, farm inputs, credit, insurance, crop estimation, market trends, and support for new agricultural technologies.

Main Parts of DPI

i) AgriStack: This includes three key registries: a farmers' registry (like an ID for farmers), a crops sown registry

(information about crops planted), and geo-referenced maps of villages.

ii) Krishi-DSS: A decision support system for agriculture.

iii) Soil Profile Maps: Maps that provide detailed soil information for better farming.

These components will make it easier for farmers to access government programs like crop insurance and loans, and receive personalized advice based on their crops, soil, and local weather conditions.

Other Initiatives announced in the Budget 2024-25

1. In the Union Budget, the government has allocated ₹1.52 lakh crore for agriculture, including new Kisan Credit Cards to be issued in five states, and ₹500 crore for the Namo Drone Didi scheme, which provides drones to women's self-help groups.

2. A new policy will improve the cooperative sector to help grow the rural economy and create jobs.

3. The government will also support shrimp farming by providing financial support for breeding centres and facilitating financing through NABARD for shrimp farming and export.

4. To promote natural farming, 1 crore farmers will be introduced to this method over the next two years, with 10,000 centres set up to provide bio-inputs for farming. 109 new high-yielding and climate-resilient crop varieties will be introduced.

5. The government will review the agricultural research system to improve productivity and develop new crop varieties that can withstand climate changes, with funding provided for research involving both government and private experts.

Mains Point: Government Takes Major Step Towards Digitising Agriculture

18. Electric Mobility Promotion Scheme (EMPS), 2024

Context: Electric Mobility Promotion Scheme

The Ministry of Heavy Industries has launched the Electric Mobility Promotion Scheme (EMPS) – 2024. Its duration is 4 months i.e. April 01, 2024 till July 31, 2024 with an outlay of Rs. 500 crores.

About Electric Mobility Promotion Scheme

Objective-

A) To accelerate the adoption of electric two-wheelers (e-2W) and three-wheelers (e-3W, including registered e-rickshaws and e-carts).

B) To bolster green mobility and the EV manufacturing ecosystem in the country.

Key Features-

1) It has a limited fund and a specific duration. It provides subsidies for e-2w and e-3w vehicles until funds are exhausted or until July 31, 2024, whichever comes first.

2) EVs eligible for incentives must be manufactured and registered within the EMPS 2024 validity period.

3) To promote advanced technologies, incentives will only apply to vehicles equipped with advanced batteries.

4) If funds for the scheme deplete before July 31, 2024, it will be closed, and no further claims will be accepted under EMPS 2024. Claims will be processed on a first-come, first-served basis.

Mains Point: Electric Mobility Promotion Scheme

Prelims Point: Electric Mobility Promotion Scheme

19. The worrying trend in household savings

Context: Household sector savings are crucial for financing corporate investment. The article discusses how household sector savings are crucial for financing corporate

investment. It highlights that net financial savings of households have declined, which may constrain corporate investments. It also mentions the need for government support through fiscal consolidation.

Status of Savings in India

- *Household Savings:*
 - Household savings are essential for funding corporate investments. These savings have declined from 7.3% of GDP in 2021-22 to 5.2% in 2022-23, which is the lowest rate in the last five decades.
- *Corporate Sector:*
 - The private corporate sector's savings rate has improved to 10.1% of GDP in the last eight years. However, this is still not enough for their investment needs.
- *Government Efforts:*
 - The government has reduced its fiscal deficit from 13.1% of GDP in 2020-21 to 8.6% in 2023-24, aiming for further reductions to 4.5% by 2025-26. This fiscal consolidation helps free up resources for corporate investment.

Rising household indebtedness is a concern

- 1) Concerns about rising household indebtedness are largely misplaced.
- 2) At least 25% of financial liabilities in 2022-23 were for investment purposes like housing and education loans.
- 3) In March 2023, households' financial assets were 2.7 times their liabilities, indicating a healthy balance sheet.
- 4) The debt servicing burden of Indian households declined from 6.9% in March 2021 to 6.7% in March 2023, one of the lowest in the world.

Concerns related to the finances of households

- *Increased Financial Liabilities:*
 - Liabilities rose from 3.8% to 5.7% of GDP, reducing net savings.
- *Rising Personal Loans:*

- Personal loans from banks grew by 28% in 2023-24, after a 21% rise in 2022-23.
- *Debt Servicing Burden:*
 - Though lower than before, debt servicing still impacts future savings.
- *Volatile Physical Savings:*
 - Savings in physical assets have been unpredictable, peaking at 70% of gross savings in 2022-23.

Mains Point: Household sector savings

Prelims Point: Household sector savings

20. Capital gains: Why deny an inflation adjustment?

Context: Changes in India's tax regime for capital gains

The article discusses changes in India's tax regime for capital gains. It explains that both short- and long-term capital gains tax rates have increased. The removal of indexation benefits for non-financial assets like property is criticized, suggesting it could lead to unfair taxation.

Changes were made to India's tax regime

Short-Term Capital Gains Tax:

If an investor sells shares within a year, they now pay 20% tax instead of 15%.

Long-Term Capital Gains Tax:

Selling shares held for more than a year now incurs a 12.5% tax, up from 10%.

Removal of Indexation Benefits:

For non-financial assets like property, except those acquired before 2001.

Tax Rate Uniformity:

Aimed to simplify recall of tax rules across different asset classes.

Impact on Inflation Adjustment:

Ignoring inflation's compounding effect could lead to higher tax liabilities. Without indexation, a property's real value increase is not considered, leading to a higher tax bill.

Arguments for and against the changes

Arguments For:

- 1) The tax hikes align with progressive taxation, targeting those who can afford to pay more.
- 2) Asset values have risen significantly, justifying higher taxes.
- 3) Reducing speculation in real estate could increase housing supply. For example, investors might shift from property to equities, addressing actual housing needs.

Arguments Against:

- 1) Removal of indexation for properties bought after 2001 is seen as unfair.
- 2) Indexation helps offset inflation, reflecting the real gain from asset sales. For example, a house bought for ₹1 crore 20 years ago, considering 6.5% average annual inflation, is now worth much less. Without indexation, tax bills become unreasonably high.
- 3) The policy change contradicts the expectation of stable tax rules.
- 4) Could lead to increased cash deals and black money usage.
- 5) Complicated tax avoidance strategies, like reinvesting in a transit house, reflect poorly on the tax system.

Should be done

- 1) Reintroduce indexation benefits for all non-financial assets, not just for properties bought before 2001.
- 2) Address the issue of speculative investments in real estate through other measures.
- 3) Ensure tax policies are stable to maintain trust among investors.
- 4) Promote evenly applied levies within asset classes to adhere to the cardinal principle of taxation.

Mains Point: Changes in India's tax regime for capital gains

21. ANGEL TAX' ABOLISHED FOR ALL CLASSES OF INVESTORS

Context: Angel Tax

Recently, the Union Minister for Finance proposed to abolish the 'angel tax' for all

classes of investors while presenting the Union Budget 2024-25 in Parliament.

About Angel Tax

1. Angel tax was levied on the capital raised via the issue of shares by unlisted companies from an Indian investor if the share price of issued shares exceeded the fair market value of the company.
2. The excess funds raised at prices above fair value were treated as income, on which tax was levied.
3. The tax derives its genesis from section 56(2) (viib) of the Income Tax Act, 1961. It was first introduced in 2012 to prevent black money laundering through share sales.
4. It was levied at a rate of 30.9% on net investments in excess of the fair market value.
5. Exemptions for Startups (Announced in 2019)
 - i) Eligible Startups: Startups should be recognized by the Department for Promotion of Industry and Internal Trade (DPIIT) as eligible startups.
 - ii) Capital Limit: The aggregate amount of paid-up share capital and share premium of the startup cannot be more than ₹25 crores. This amount does not include money raised from Non-Resident Indians (NRIs), Venture Capital Firms, and specified companies.
6. Angel Investors: For angel investors, the amount of investment that exceeds the fair market value could be claimed for a 100% tax exemption. The investor must have a net worth of ₹2 crores or an income of more than ₹25 lakh in the past 3 fiscal years.

Prelims Point: Angel Tax

Mains Point: Angel Tax

22. FILLING A GAP

Context: SEBI's Proposed New Asset Class for Mutual Funds

The Securities and Exchange Board of India (Sebi) has proposed a new asset class for mutual fund investors to bridge the gap between portfolio management schemes (PMS) and traditional mutual funds.

Key features of the proposed asset class

1) Investment Threshold

- The proposed minimum investment is ₹10 lakh, placing it between regular mutual funds and PMS, which requires a ₹50 lakh minimum.

2) Fund Management Requirements-

A)AMCs must appoint chief investment officers with at least 10 years of experience managing assets worth ₹5,000 crore or more.

B) Additional fund managers should have at least seven years of experience handling ₹3,000 crore or more.

C)The AMC itself must have been operational for at least three years with assets of ₹10,000 crore or more.

3) Investment Options and Flexibility-

A) These funds will offer systematic investment plans (SIPs), systematic withdrawal plans, and systematic transfer plans, similar to traditional mutual funds.

B) Fund managers will have the flexibility to use derivative strategies for purposes beyond hedging.

4) Branding and Investor Awareness

-The new asset class will have a unique branding to stand out from low-risk mutual funds and ensure investor clarity.

5) Redemption and Liquidity-

A) More flexibility in tailoring redemption frequency to manage liquidity constraints.

B) Proposal to list units on stock exchanges, like exchange-traded funds (ETFs), for easier entry and exit.

6) Investment Strategies

- This new class of funds will use “Long-Short” portfolios to benefit from both rising and falling share prices and may create “Inverse ETFs” that move opposite to a benchmark ETF.

Significance of Proposed New Asset Class for Mutual Fund

1) Meeting Investor Needs

-It caters to investors with higher risk appetites and financial capacities by offering them regulated access to high-risk, high-return strategies.

2) Combating Unauthorized Schemes

- It will minimize the attraction of unregistered and unauthorized entities that promise unrealistic returns by establishing a regulated environment.

3) Investor Protection

- It offers a modicum of protection to investors who might otherwise be drawn to unregulated schemes.

4) Market Gap Fulfillment

- It offers a regulated choice for investors looking for higher-risk strategies, filling a market gap.

Conclusion

-Sebi’s proposed new asset class for mutual funds represents a significant development in India’s financial markets. However, if this new asset class becomes popular, Sebi and the exchanges will have to manage increased derivatives volumes and improve surveillance and margin systems.

Mains Point: SEBI’s Proposed New Asset Class for Mutual Funds

Prelims Point: SEBI’s Proposed New Asset Class for Mutual Funds

23. MINISTER LAUNCHES REVAMPED MODEL SKILL LOAN SCHEME

Context: Revamped Model Skill Loan Scheme

The revamped Model Skill Loan scheme was launched recently with Finance Minister

Nirmala Sitharaman announcing the revision in her budget speech.

About Revamped Model Skill Loan Scheme

1. The government has introduced a revamped 'model skill loan scheme' for skill development courses.
2. The Model skill loan scheme was launched in 2015. The previous scheme saw low uptake due to the low maximum loan limit and increasing course fees. Data showed that loans amounting to Rs 115.75 crore were extended to 10,077 borrowers until March 31 this year.
3. The revised model skill loan scheme aims to provide better financial support for skill development courses, addressing previous limitations and expanding access to a wider range of courses and institutions.

New Features:

- i) The loan scheme now includes non-banking financial companies (NBFCs), NBFC-MFIs (micro-finance institutions), and small finance banks as eligible lending institutions, in addition to private, public, and foreign banks.
- ii) The revised scheme will cover more skill courses, including non-NSQF (National Skill Qualification Framework) courses that are onboarded on the Skill India Digital Hub platform.
- iii) Ministry of Skill Development and Entrepreneurship emphasized the need for adapting to future technologies and job market changes.
- iv) The government is strategically planning for the country's future up to 2047, aiming to have a significant impact on the job market and people's lives through this revised scheme.
- v) The maximum loan limit has been increased to Rs 7.5 lakh from the

previous Rs 1.5 lakh. The revised scheme is expected to help 25,000 students annually.

Prelims Point: Revamped Model Skill Loan Scheme

Mains Point: Revamped Model Skill Loan Scheme

24.RESERVE BANK OF INDIA RELEASES PCA FRAMEWORK FOR URBAN COOPERATIVE BANKS

Context: RBI Releases New PCA Framework for Urban Cooperative Banks

The Reserve Bank of India (RBI) has introduced a new Prompt Corrective Action (PCA) framework aimed at improving weak Urban Cooperative Banks (UCBs).

This framework will replace the existing Supervisory Action Framework (SAF) and will be effective from April 1, 2025.

About the framework

1. The PCA framework is designed to ensure timely intervention and corrective measures for weak UCBs.
2. It focuses more on larger UCBs that require intensive monitoring, thereby optimizing supervisory resources.

Applicability:

The new PCA framework will apply to UCBs with deposits exceeding Rs 100 crore. UCBs are categorized into four tiers based on their deposit sizes:

Tier Type	Deposit size
Tier 1	UCBs with deposits up to Rs 100 crore
Tier 2	UCBs with deposits above Rs 100 crore but less than Rs 1,000 crore
Tier 3	UCBs with deposits above Rs 1,000 crore but less than Rs 10,000 crore

Tier 4	UCBs with deposits above Rs 10,000 crore
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Note: Currently, Tier 1 UCBs are excluded from the PCA framework but will continue to be under enhanced monitoring.

Criteria for Invoking PCA:

- i) If the CAR falls up to 250 basis points below the required level.
- ii) If net NPAs are above 6% but below 9%.
- iii) If a bank incurs losses for two consecutive years.

Process:

- i) The PCA framework will be invoked based on the reported and audited annual financial results and ongoing supervisory assessments by the RBI.
- ii) The RBI may impose PCA at any time during the year if circumstances warrant immediate action.

The revised framework allows for entity-specific supervisory action plans based on risk assessments.

The hard-coded limit of Rs 25,000 for restrictions on capital expenditure under SAF has been removed, giving supervisors the flexibility to set limits based on their assessment of each entity. UCBs can exit the PCA framework if no breaches in risk thresholds are observed across four successive quarterly financial statements.

Mains Point: RBI Releases New PCA Framework for Urban Cooperative Banks

Prelims Point: RBI Releases New PCA Framework for Urban Cooperative Banks

25. WHAT IS INDEXATION IN CALCULATING LTCG TAX? DOES THE REMOVAL OF INDEXATION BENEFIT IN THE BUDGET MEAN YOU WILL PAY MORE TAX?

Context: Indexation

The withdrawal of the indexation benefit in the long-term capital gains (LTCG) tax

regime is one of the most contentious decisions announced.

About Indexation:

Indexation is the process of adjusting the original purchase price of an asset or investment to account for inflation.

Purpose:

It helps to neutralize the impact of inflation, ensuring that the value of money remains consistent over time.

How Indexation Works:

- i) Over time, inflation reduces the purchasing power of money. When an asset is sold or an investment is redeemed, inflation can affect the returns.
- ii) Indexation calculates the cost of acquisition by factoring in inflation over the holding period. This adjusted cost is called the indexed cost of acquisition.
- iii) Returns calculated using the indexed cost of acquisition are considered more realistic compared to absolute gains based on the original purchase price.

Benefits of Indexation:

- i) Indexation helps in preventing the erosion of investment returns by reducing the amount of taxes paid on long-term investments.
- ii) It is applicable to long-term investments, such as debt funds and other asset classes, ensuring the purchase price of investments is adjusted for inflation.

Prelims Point: Indexation

ENVIRONMENT

1. CLIMATE RISKS PROJECTED TO AFFECT FISH BIOMASS AROUND THE WORLD'S OCEAN, FAO REPORT SAYS

Context: FishMIP Initiative

The Ecosystem Model Intercomparison Project (FishMIP) report projects that exploitable fish biomass could decline by more than 10% by mid-century, particularly under high-emission scenarios, affecting many regions globally.

About FishMIP Initiative

Launch:

The Fisheries and Marine Ecosystem Model Intercomparison Project (FishMIP) was officially launched in 2013 by FAO.

Purpose:

It provides knowledge to industry and governments to support effective planning for adaptive and resilient seafood sectors in the face of climate change.

Network:

FishMIP includes over 100 marine ecosystem modellers and researchers from around the world.

Collaboration:

FishMIP and the Food and Agriculture Organization (FAO) collaborate to understand the long-term impacts of climate change on marine ecosystems and fisheries using state-of-the-art numerical models.

FishMIP2.0:

It was established in 2024 to enhance the reliability of modelling projections and address a broader set of policy-related questions relevant to food security and marine resource management, with a continued focus on climate change.

About the Food and Agriculture Organization (FAO)

1. It is a specialized agency of the United Nations.

2. It is leading international efforts to defeat hunger and improve nutrition and food security.

Headquarter : Rome, Italy.

Goal

To achieve food security for all, ensure people have regular access to enough high-quality food to lead active, healthy lives.

Members

1. 195 members, including 194 countries and the European Union.
2. World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD) are its sister bodies.

Reports Published

1. The State of the World's Forests (SOFO)
2. The State of World Fisheries and Aquaculture (SOFIA)
3. The State of Agricultural Commodity Markets (SOCO)
4. The State of Food Security and Nutrition in the World (SOFI)

Prelims Point: Reports Published by FAO, FishMIP Initiative

2. THE ISSUE WITH TREE PLANTING SCHEMES

Context: Challenges with Current Tree Planting Efforts

The article discusses the problems with tree planting programs, highlighting that while they are popular for tackling climate issues, they often lack proper community involvement and long-term care. It also notes India's challenges and efforts in forest restoration and meeting international climate commitments.

Initiative Taken for the Ecosystem Restoration

Decade of Ecosystem Restoration (2021-2030):

- The UN aims to restore 350 million hectares of degraded land to enhance ecosystem services and sequester 13-26 gigatons of greenhouse gases.

Van Mahotsava in India:

- Launched in 1950 by K.M. Munshi, this annual tree-planting festival occurs in the first week of July, promoting forest growth and engaging public participation.

Global Tree Planting Initiatives:

- The “One Trillion Trees Initiative” by the World Economic Forum aims to massively increase global tree cover.
- The “Great Green Wall” of China, aimed at reducing desertification.
- Pakistan’s “10 Billion Tree Tsunami”, a large-scale national reforestation initiative.
- The “Bonn Challenge”, which has a target of restoring 150 million hectares by 2020 and 350 million hectares by 2030.

Challenges with Current Tree Planting Efforts

- **Limited Community Participation:**
 - Many tree planting initiatives, like glamorous drives and campaigns, suffer from inadequate involvement of local communities, which is crucial for the long-term success of these projects.
- **Inadequate Post-Planting Care:**
 - There is a lack of ongoing maintenance and monitoring of tree growth, which is vital for the survival and ecological integration of newly planted trees.
- **Promotion of Monoculture:**
 - Some initiatives focus on planting single species of trees, which can be less effective for biodiversity and carbon sequestration compared to diverse plantings.
- **Ecological Neglect:**
 - Research by Joseph Veldman and colleagues found that planting trees in

inappropriate locations, such as grasslands and animal habitats, can damage existing ecosystems and increase wildfire risks.

Misclassification of Lands:

- William Bond and his team criticized the practice of labeling grasslands as deforested or degraded, which can lead to misguided restoration efforts that overlook the ecological value of these areas.

Increased Wildfire Risk:

- Introducing trees into grassland areas can increase the likelihood and intensity of wildfires, posing greater ecological risks.

India’s Specific Challenges and Achievements

India’s Challenges:

- Nearly 10 million hectares of India’s forests are affected by encroachment.
- Approximately 275 million people rely on forests for their basic needs and livelihood.
- Since independence, about 5.7 million hectares of forest land have been repurposed for non-forestry uses.
- India faces the daunting task of restoring 26 million hectares of degraded forests by 2030.

India’s Achievements:

- India is recognized as the only G20 country to meet its commitments under the Paris Agreement.
- The country has created an additional carbon sink capable of absorbing 1.97 billion tonnes of CO2 equivalent.
- These statements were confirmed by Prime Minister Narendra Modi and Union Minister Ashwini Kumar Choubey in recent official addresses.

Should be Done

Adequate finances, community participation, and technical considerations are crucial.

Public awareness and incentivized community participation can help create resilient forests.

Mains Point: Challenges with Current Tree Planting Efforts

3. INDIA PLANS TO ENTER INTO CARBON CREDITING MECHANISM WITH JAPAN

Context: Joint Crediting Mechanism (JCM) India and Japan plan to establish a Joint Crediting Mechanism (JCM) for carbon trading and carbon credit adjustment. The countries aim to sign a Memorandum of Cooperation to formalize the JCM.

About Joint Crediting Mechanism (JCM) Mechanism

1. The JCM will be formed under Article 6.2 of the Paris Agreement. The implementation will adhere to the relevant domestic laws and regulations of both countries.
2. The committee will develop rules and guidelines for the JCM, covering project cycle procedures, methodologies, project design documents, monitoring, and third-party entity designation.
3. The mechanism ensures mutual recognition of credits towards the NDCs of both countries, avoiding double counting. Each government can authorize part of the JCM credits for international mitigation purposes.
4. Carbon credits will be allocated through a structured process, and a registry will track these credits.
5. Credits will be allocated to the respective registries of India and Japan and used towards their NDCs to cut emissions and adapt to climate impacts.
6. Japan will facilitate the transfer of technology, finance, and capacity

building for new technologies under the JCM.

Economic and Environmental Benefits

1. The mechanism is expected to boost job creation by attracting investments in low-carbon and clean technologies.
2. The JCM will facilitate the diffusion of leading decarbonizing technologies, equipment, machinery, products, systems, and infrastructure.

Prelims Point: Joint Crediting Mechanism

Mains Point: Joint Crediting Mechanism

4. ECONOMIC SURVEY SHOWS WHAT INDIA GETS RIGHT – AND DEVELOPED NATIONS GET WRONG – ABOUT CLIMATE CHANGE

Context: *Balancing Development and Sustainability*

India has low per-capita carbon emissions (~2.5 tons) compared to the global average of 6.3 tons. As the world's fifth-largest economy currently, India is poised to become the third largest by 2030, with its energy demands projected to grow 1.5 times faster than the global average over the next three decades.

Issues with global climate pledges and strategies

Criticism of The Economic Survey

-It criticizes global climate pledges for being too small in scale, often given as loans rather than grants, and prioritizing profit over environmental improvement. Recent discussions at COP29 also revealed reluctance among developed countries to commit to binding contributions.

Optimal Strategies

-Climate adaptation adjusts to climate change impacts, while climate mitigation aims to reduce its causes. However, there isn't enough focus on whether these strategies are truly optimal.

Sustainability Oversights and Emissions Comparison

-Climate advocates often ignore simple sustainable practices such as plant-based diets, efficient farming, reduced consumption, and assessing energy-intensive technologies. While the developed world evaluates progress per capita in various areas, it doesn't consistently use this method to compare emissions.

Way forward

Embracing Natural Living Practices

-There is a need to adopt a lifestyle aligned with nature rather than solely prioritizing industrial methods. Many Indians already practice sustainability by using cloth for cleaning, choosing leaf plates instead of plastic, employing water-based toilet cleaning systems, and reusing household items.

Embracing Sustainable Living Practices

-It is important to adopt sustainable strategies such as plant-based eating, efficient farming, reduced consumption, minimizing the use of disposable products like toilet paper, and critically evaluating energy-intensive technologies.

Sustainability and Mission LiFE

-India should not adopt unsustainable, energy-intensive practices like developed nations. Sustainability stems from traditional values that emphasize the impact of small actions. Mission LiFE, initiated by India at COP-26, highlights individual responsibility in the global climate agenda.

Excessive Consumption and Waste

-There is a need to dig deeper and investigate the roots of excessive consumption and the habit of wastefully discarding usable items

Mains Point: Balancing Development and Sustainability

5. WHY ECONOMIC SURVEY ARGUES FOR CLIMATE ADAPTATION, NOT MITIGATION

Context: India's Economic Survey criticize international climate change framework
The article critiques the international climate change framework for its ineffectiveness and inequities. It discusses India's Economic Survey, which calls for focusing on adaptation and resilience rather than just mitigation. The article also criticizes developed countries for failing to meet emission targets and contributing to global inequities.

Current Climate Framework criticized due to

- *Targets Not Met:*
 - The international framework has failed to achieve its climate targets. For instance, no targets set under this system have ever been met.
- *Unfair Pressure on Developing Nations:*
 - The focus on achieving the 1.5-degree Celsius target imposes undue pressure on developing countries. This pressure diverts resources from improving people's lives in these nations.
- *Developed Countries' Failures:*
 - Developed countries, especially the U.S., have not met emission reduction goals. In 2019, U.S. emissions were 6% higher than in 1990, and developed countries have not fulfilled their financial or technological commitments to developing nations.
- *Inequitable International System:*
 - a) The system often perpetuates the dominance of the rich countries, as seen when the Kyoto Protocol was replaced by the Paris Agreement.
 - b) Scientific models used by the IPCC are criticized for disregarding historical responsibilities and future needs of developing nations.

Economic Survey does propose some alternatives

1. The Economic Survey advocates for focusing on adaptation alongside mitigation. It suggests that since the 1.5-degree target will likely be breached, improving resilience and overall well-being is crucial.
2. It proposes incorporating lifestyle and behavioral changes to reduce greenhouse gas emissions.
3. The Survey argues that adaptation should receive equal importance as mitigation because climate impacts are already unfolding.
4. It challenges the notion that achieving the 1.5-degree target at all costs is necessary, suggesting a warmer world could be more equitable and resilient.
5. The Survey also calls for a shift in India's energy transition strategy, emphasizing rapid development and adaptation over strict adherence to temperature targets.

India addressing Climate Change

1. India's Economic Survey emphasizes improving climate resilience in infrastructure projects.
2. The Central Vista redevelopment is a significant project, but it remains uncertain if it will be a leading model for climate-friendly buildings.
3. The Smart City plans, started nine years ago, include climate-proofing elements, but many cities are still struggling with sewage management.
4. New railway stations being built are expected to be better than existing ones but may not be the most climate-friendly.
5. India promotes Mission Life, focusing on lifestyle and behavioral changes, but it has not yet become a mass movement.
6. The Survey suggests that current efforts, like these, are not sufficiently fast or

comprehensive in addressing climate change.

Mains Point: India's Economic Survey criticize international climate change framework

6. WHAT IS A CLIMATE FINANCE TAXONOMY, ANNOUNCED BY FM SITHARAMAN?

Context: Climate Finance Taxonomy
The Union Budget for 2024-25 included an announcement by the finance minister about developing a 'climate finance taxonomy' in India.

About Climate Finance Taxonomy:

It is a system that classifies which parts of the economy can be marketed as sustainable investments.

Purpose:

To guides investors and banks in channeling funds toward impactful investments to combat climate change.

Uses:

To sets standards for climate-related financial instruments (like green bonds) and serves in climate risk management, net-zero transition planning, and climate disclosure.

Global Examples:

Countries like South Africa, Colombia, South Korea, Thailand, Singapore, Canada, Mexico, and the European Union have developed their own taxonomies.

Significance:

- i) Net-Zero Economy: It helps countries transition to a net-zero economy, balancing the production and removal of greenhouse gases (GHG).
- ii) Alignment with Science: It ensures economic activities align with credible, science-based transition pathways.
- iii) Climate Capital Deployment: It encourages the flow of funds toward climate adaptation and mitigation.

- iv) **Greenwashing Prevention:** It reduces the risk of misleading claims about environmental benefits (greenwashing).
- v) **Capital Availability:** It increases capital for climate initiatives, aiding India in meeting its climate commitments and green transition goals.

Prelims Point: Climate Finance Taxonomy

7. WHY AI'S PRESENT AND FUTURE BRING SOME SERIOUS ENVIRONMENTAL CONCERNS

Context: The Environmental Impact of Artificial Intelligence

AI has the potential to transform climate change efforts. However, Google's annual environment report revealed a 13% increase in its emissions footprint in 2023 compared to the previous year. This rise was mainly attributed to increased electricity consumption in data centers and supply chains due to the growing deployment and usage of AI tools.

Reasons for higher energy consumption of AI models

- 1) *Performing Complex Operation*
 - They perform more complex operations than simple search engines, even when addressing the same query. They process vast amounts of data while formulating appropriate responses, resulting in more electrical signals for data processing, storage, and retrieval.
- 2) *Heat Generation and Cooling Requirements*
 - The increased computational work generates more heat, requiring stronger cooling systems in data centers and increasing energy use.

Environmental Impacts of Artificial Intelligence

- 1) *Enhances Electricity Demand*
 - Data centers currently use 1% to 1.3% of global electricity, and this could

increase to 1.5% to 3% by 2026, according to the International Energy Agency. In some countries, data centers use over 10% of national electricity. In Ireland, it's 18% due to tax incentives, while in the U.S., it ranges from 1.3% to 4.5%.

2) *Energy Intensive*

- AI queries, like those to ChatGPT, use 10 to 33 times more energy than a regular Google search, with image-based searches being even more energy-intensive.

3) *Water Resource Concerns*

- There are increasing concerns about water use for cooling data centers. For instance, a data center for OpenAI's GPT-4 in Iowa used 6% of the local water supply in July 2022.

The way forward

1) *Need for Sustainable Planning*

- As India adopts AI technology, experts stress the need for careful planning to reduce environmental impacts. This means data centers should use efficient processes and minimize emissions.

2) *Benefits of AI in Emissions Reduction*

- Studies suggest that widespread AI use in corporate and industrial practices could cut global emissions by 5-10% by 2030, according to Boston Consulting Group.

3) *Monitoring and Predicting*

- AI can cut emissions by monitoring, predicting, and optimizing processes to reduce waste and inefficiencies.

Mains Point: The Environmental Impact of Artificial Intelligence

8. TOUGH STEPS TO CLEAN THE AIR MAY RAISE EXPENSES IN SEVERAL SECTORS

Context: Proposed amendments to India's Air (Prevention and Control of Pollution) Rules, 1982

The article discusses proposed amendments to India's Air (Prevention and Control of Pollution) Rules, 1982, aimed at reducing air pollution. These changes will increase operational costs and oversight for industries, involve public feedback, and replace imprisonment with penalties for violations.

Proposed Changes to Air Pollution Rules

- The MoEFCC is introducing a new chapter on adjudicating officers to grant quasi-judicial powers to bureaucrats in state and central government's environment and pollution control departments.
- This new chapter outlines conditions for their appointment, procedures for conducting inquiries, issuing penalties, and the factors to consider before imposing penalties.
- Amendments under the Jan Vishwas (Amendment and Provisions) Act affect multiple laws, including the Air (Prevention and Control of Pollution) Act, Environment (Protection) Act, and Public Liability Insurance Act.
- The changes include new sections like Section 39A and Section 16 of the EP Act, which did not exist before.
- Section 53 of the Air Act is amended to detail the process for holding inquiries and imposing penalties by adjudicating officers.
- Imprisonment for first-time violations will be replaced with monetary penalties to ease business operations.
- Violators will face fines of Rs 10,000 and additional daily fines up to Rs 5,000 for continuous violations.
- If penalties are not paid within 90 days, violators may face fines up to twice the

penalty amount or imprisonment of up to three years.

- Adjudicating officers will direct state pollution control boards or committees to initiate criminal proceedings if penalties remain unpaid.
- Penalty amounts will be credited to the central government's Environmental Protection Fund.

These changes will affect businesses

- Stricter oversight will be imposed, leading to higher compliance costs, especially for smaller companies. For example, businesses found violating the rules will face fines of Rs 10,000, with additional daily fines of Rs 5,000 for ongoing violations.
- Imprisonment will be replaced by monetary penalties, aiming to ease business operations but still adding financial burdens.
- Companies must also adhere to enhanced disclosure requirements for the Environmental Protection Fund.
- The need for strict adherence to these new rules may affect the profitability of businesses as they adjust to the new regulations.
- Experts believe these changes, while costly, will create robust deterrents against pollution and benefit long-term environmental goals.

Public can contribute

1. The government has made these proposed amendments available in the public domain and is inviting comments and feedback from the public and interested parties.
2. Individuals can submit their objections or suggestions regarding the draft notification within 60 days from its issue date of July 24.

Mains Point: Proposed amendments to India's Air (Prevention and Control of Pollution) Rules, 1982

9. WORLD MANGROVE DAY: THEIR CONSERVATION IN INDIA IS AN IMPRESSIVE TURNAROUND STORY BUT CHALLENGES REMAIN

Context: World Mangrove Day

July 26 is the International Day for Conservation of Mangrove Ecosystems, established by UNESCO in 2015. This day highlights the unique and vulnerable nature of mangroves and promotes their sustainable management and conservation.

Mangroves, often called ‘sentinels of the coast,’ offer numerous benefits. They protect shorelines, mitigate storm and cyclone impacts, support fish nurseries, sequester carbon and nutrients, maintain genetic diversity, and provide other ecological advantages.

India’s mangrove area grew from 4,046 sq km in 1987 to 4,992 sq km in 2019, as reported by the Forest Survey of India. This progress is notable compared to the global decline of 3.4% in mangrove cover since 1996.

Issues with mangrove conservation in India

- **Decline in Natural Coastal Wetlands**
 - -The National Decadal Wetland Change Atlas reports a decline in natural coastal wetlands from 3.69 million hectares in 2006 to 3.62 million hectares in 2018.
- **Loss of Intertidal Mudflats**
 - -Intertidal mudflats, important for migratory birds and carbon storage, have been reduced due to mangrove plantations and other causes. Changing these mudflats to mangrove areas leads to a loss of their vital functions.
- **Restoration Challenge**
 - Mangrove restoration usually involves planting propagules, a method popular after the 2004 Indian Ocean Tsunami. However, these efforts face low

survival rates and may not tackle the root causes of mangrove loss.

- **Accommodation Space**
 - -Mangroves need space to adjust to rising sea levels and accumulating sediments. In cities like Mumbai, where development encroaches on mangroves, the lack of this space can hinder their ability to adapt to climate change.
- **Threats to Mangroves**
 - -Mangroves are threatened by over-harvesting, pollution, land conversion, and development.
- **Impact of Climate Change**
 - -Climate change affects mangroves with rising sea levels, higher temperatures, and more frequent storms. While warmer temperatures could promote growth, increased storms and sea level rise are major challenges.

The way forward

- **Broadening Policy Targets:**
 - Policy should focus on overall coastal ecosystem health, not just expanding mangrove cover. Mangroves are interconnected with mudflats, lagoons, and other ecosystems, so preserving these areas and supporting coastal communities is more meaningful.
- **Incorporating Climate Risks**
 - Managing mangroves and coastal ecosystems must address climate risks and include adaptation strategies. Climate models should be designed as per local hydrological and ecological conditions.
- **Expanding Restoration Tools**
 - Mangrove restoration should expand to include hydrological and sediment restoration, along with combined grey-green solutions.
- **Integrating Sector Plans**
 - Sector plans for water, disaster management, fisheries, and tourism

must consider the needs of mangroves and coastal ecosystems.

- **Assessing Ecosystem Values:**
 - Coastal resilience should be based on understanding the value of ecosystems and involve everyone in society. The new National Coastal Mission may lead to these changes.

Prelims Point: World Mangrove Day

Mains Point: World Mangrove Day

10. OLYMPICS 2024: RINGS COLOURED GREEN

Context: Setting New Standards for Sustainable Olympic Games

Paris will host the 33rd Olympic Games in 2024, making it the greenest Games ever. With the planet experiencing record temperatures, the Olympics is stressing the urgent need to tackle climate change. As the Earth warms and more areas become uninhabitable, hosting mega events like the Olympics will become increasingly unsustainable

A report released on the opening day of the Olympics, “Three Years of Progress: A Review of Sustainability across the 2021-2024 Olympic Cycle,” highlights that the past three years have seen rapid progress in sports and sustainability since Tokyo 2020. Almost every sports federation is now focusing on environmental sustainability.

Paris 2024’s sustainability initiatives for the Olympic Games

- **Emission Reduction Goals**
 - Previous Olympics (Tokyo, Rio, London) emitted around 3.5 million tonnes of CO₂. Paris 2024 aims to cut this in half, targeting 1.75 million tonnes.
- **Sustainable Infrastructure**
 - 95% of Paris 2024 events will use existing buildings, minimizing new construction to reduce environmental impact

▪ Energy Sources

- The Athletes’ Village will use geothermal and solar energy, and stadiums will rely on the public electricity grid instead of diesel generators.

▪ Sustainable Practices

- Paris 2024 will focus on recycling, reusing, and reducing materials, including beds made from recycled cardboard like Tokyo’s. They’ll offer more plant-based and local foods and introduce 1,000 km of cycle lanes to encourage low-carbon living.

Challenges

1) Carbon Emissions from Air Travel

- There are concerns about carbon emissions from visitor air travel and the effectiveness of offsetting projects.

2) Adaptation to Climate Realities

- Paris had to install 2,500 temporary cooling units for athletes due to extreme heat, instead of being AC-free as planned

Mains Point: New Standards for Sustainable Olympic Games

11. STATE OF THE WORLD’S FORESTS 2024: GLOBAL EFFORTS CURB DEFORESTATION, BUT THREATS TO FORESTS FROM WILDFIRES AND PESTS REMAIN

Context: State of the World’s Forests 2024

The “State of the World’s Forests 2024” report, released by the Food and Agriculture Organization (FAO). It provides a comprehensive analysis of global forest conditions and trends, revealing both positive developments and ongoing challenges.

Key Highlights of the report

1. **The report** highlights a decline in deforestation rates compared to previous decades. Several countries have shown significant improvements in forest conservation.
2. **Forest Coverage:**

As of 2020, global forest coverage was approximately 4.1 billion hectares (ha), or 31 percent of the land area. Major contributors to global forest area include:

- i. Russia, Brazil, Canada, the United States of America, and China are top five countries collectively accounting for 54 percent of the global forest area.
- ii. Australia, the Democratic Republic of Congo, Indonesia, Peru, and India, among others, contributing to about two-thirds of the global forest area.

3. Deforestation Trends:

Between 1990 and 2020, around 420 million hectares of forest were converted to other land uses. Deforestation rates decreased from 15.8 million hectares per year (1990-2002) to 10.2 million hectares per year (2015-2020).

4. Regional Deforestation Rates:

- i) Africa: 4.41 million hectares
- ii) South America: 2.95 million hectares
- iii) Asia: 2.24 million hectares

5. Forest Area Gains:

In 2020, ten countries recorded annual gains in forest area, including China, Australia, India, Chile, Viet Nam, Turkey, the United States of America, France, Italy, and Romania.

6. India ranked third globally in forest area gains, with an annual increase of 266,000 hectares from 2010-2020.

7. Mangrove Forests:

- i) The global mangrove area was recorded at 14.8 million hectares, with South and Southeast Asia contributing almost 44 percent of the total.
- ii) The rate of gross global mangrove loss decreased by 23 percent between 2000-2010 and 2010-2020, though the rate of gain in mangrove area also decreased slightly.

iii) Asia was a major contributor to both mangrove loss and gains.

8. Impact of Fires:

i) An estimated 340-370 million hectares of the earth's land area are impacted by annual fires.

ii) Satellite data revealed that total fires in 2023 emitted 6,687 megatons of carbon dioxide globally, more than double the emissions from the European Union's fossil fuel consumption

Mains Point: State of the World's Forests 2024

12. Plastic mess: More efforts must be made to curb production and promote alternatives

Context: Problems with the Extended Producer Responsibility (EPR) system

The article discusses India's plastic waste issue, highlighting that only a quarter of the 4 million tonnes generated annually is recycled. Problems with the Extended Producer Responsibility (EPR) system, including fraudulent certificates and hacking, have led to an audit and system overhaul by the CPCB.

Extended Producer Responsibility (EPR) system work

- The Extended Producer Responsibility (EPR) system mandates that packagers, importers, and large industrial users of plastic packaging collect and recycle plastic waste.
- These entities must register with the Central Pollution Control Board (CPCB).
- Recyclers collect and recycle plastic waste, issuing certificates for each tonne recycled.

Some issues have arisen with the EPR system

- In 2022-23, the Central Pollution Control Board (CPCB) estimated 3.7 million tonnes of recycling certificates were generated.

- Approximately 600,000 of these certificates were fraudulent.
- Hackers stole and sold thousands of certificates, causing significant issues.

CPCB has taken actions in response

1. The CPCB commissioned an audit of nearly 800 firms, representing almost a fourth of the 2,300 registered recyclers.
2. This audit was aimed at identifying and addressing fraudulent activities within the EPR system.
3. The CPCB overhauled the security features of the EPR trading platform to prevent further fraud.
4. This security overhaul delayed the process of filing returns for 2023-24 by several months.
5. The CPCB aims to resolve these issues, considering them “teething problems” associated with implementing a large-scale electronic system.

Mains Point: Problems with the Extended Producer Responsibility (EPR) system

13. UN COP29 Azerbaijan: Will the new Climate Finance Action Fund (CFAF) help developing countries?”

Context: Climate Finance Action Fund (CFAF)

Azerbaijan, the host of the 29th Conference of Parties (COP29) to the United Nations Framework Convention on Climate Change, has announced the establishment of the Climate Finance Action Fund (CFAF).

About the Climate Finance Action Fund (CFAF):

- Azerbaijan will be a founding contributor to the fund, which will be supported by contributions from fossil fuel-producing countries and companies in the oil, gas, and coal sectors.
- The fund’s secretariat will be based in Baku, Azerbaijan.

- The CFAF is one of 14 initiatives launched under the framework of the COP29 thematic days.

Purpose:

It aims to mobilize the private sector and de-risk investment through a public-private partnership model.

The fund will include special facilities providing concessional and grant-based support to address natural disasters in developing countries.

The initial fundraising round seeks to raise \$1 billion, and the fund will become operational once 10 countries have committed as shareholders.

Capital Allocation:

i) 50% of the capital will be directed towards climate projects in developing countries, focusing on mitigation, adaptation, and research and development.

ii) The remaining 50% will support countries in meeting their Nationally Determined Contributions (NDCs) to achieve the 1.5°C temperature target.

Revenue Allocation:

20% of the revenues generated from investments will go to a Rapid Response Funding Facility (2R2F) that offers highly concessional and grant-based support.

Prelims Point: Climate Finance Action Fund (CFAF)

Mains Point: Climate Finance Action Fund (CFAF)

14. CITES eases norms for agarwood export; move to benefit lakhs of farmers from the Northeast

Context: CITES Eases Export Norms for Agarwood

India has successfully avoided the inclusion of agarwood (*Aquilaria malaccensis*) in the CITES Review of Significant Trade (RST).

CITES Eases Export Norms for Agarwood
CITES has set a new export quota for agarwood and its derivatives from India starting April 2024. The new regulations are expected to benefit lakhs of farmers, especially in Assam, Manipur, Nagaland, and Tripura, where agarwood is cultivated.

Historical Context:

Agarwood was first listed in CITES Appendix II in 1995, following India's proposal at CoP9 in 1994, to regulate trade of the species.

Impact of Past Restrictions:

Previous export bans and restrictions led to increased informal trade, higher global prices, and illegal trade activities. Between 2017 and 2021, over 1.25 tonnes of agarwood chips and six liters of oil/derivatives were seized in India.

Push for Easing Trade restrictions

- The Botanical Survey of India (BSI) and the Ministry of Environment Forest and Climate Change (MoEFCC) conducted a study, leading to the decision to ease trade restrictions. The Export Quota for 2024–2027 has been fixed at Agarwood chips (151,080 kg per year) and powder/sawdust (7,050 kg per year).

About Agarwood

- i) It is often referred to as the “wood of the gods,” agarwood is celebrated for its religious and cultural significance due to its aromatic properties.
- ii) Agarwood is derived from a fast-growing evergreen tree species native to Northeast India, known for its economic importance.
- iii) Beyond India, agarwood trees are found from the foothills of the Himalayas to Papua New Guinea.

iv) Following Assam's lead, Tripura is actively promoting the commercial cultivation of agarwood among farmers.

Prelims Point: Agarwood

Mains Point: CITES Eases Export Norms for Agarwood

15. Project Tiger will displace 5.5 lakh tribals: report

Context: Displacement due to Project Tiger
A report released on Global Tiger Day reveals that Project Tiger will displace at least 5.5 lakh (550,000) Scheduled Tribes and other forest dwellers.

Key Findings of the report

1. Displacement Statistics:

- i) Before 2021: About 2,54,794 (254,794) people were displaced from 50 tiger reserves, which averages to around 5,000 people per reserve.
- ii) Since 2021: The average number of people displaced from six tiger reserves has increased to 48,333 per reserve. This represents a 967% increase in displacement compared to the period before 2021.

2. Specific Locations Affected:

- i) Kumbhalgarh Wildlife Sanctuary: Approximately 1,60,000 (160,000) people are expected to be displaced from this sanctuary in Rajasthan.
- ii) Nauradehi Wildlife Sanctuary: Around 72,772 people will be displaced from this sanctuary in Madhya Pradesh.
- iii) Ranipur Tiger Reserve: About 45,000 people will be displaced from this reserve in Uttar Pradesh.

3. **Human Rights Concerns:** The report highlights significant human rights violations associated with these forced evictions.

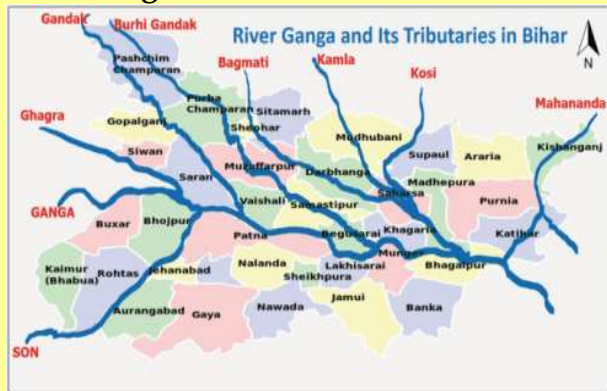
Mains Point: Displacement due to Project Tiger

MISCELLANEOUS ISSUES:

1. Bagmati River.

Context: Recently, a flood situation has emerged in Bihar's Muzaffarpur area due to the rising water levels of the Bagmati River.

About **Bagmati River:**



Source- *Mera Apna Bihar*

Aspect Detail

Location The Bagmati River flows through south-central Nepal and northern Bihar state, India.

Origin The river originates from the Bagdwar area in the Shivapuri Hills, located in the northwestern part of Kathandu Valley.

Course

- The river flows down from the Kathmandu valley floor and passes through the valley at Chovar.
- It flows southward through the Shivalik Range, the southernmost range of the Himalayas.
- The river continues across the plains of Tarai into Bihar. It then flows southeastward to join the Burhi Gandak River.

The total course of the river is 225 miles (360 km). The Bagmati River basin transacts three distinct latitudinal physiographic zones in

the Nepal Himalayas- Mountain Zone, Siwalik Zone and Terai Zone.

Religious The river is considered holy by both Hindus and Buddhists.

Significance The banks of the Bagmati River are home to various temples, including the Pashupatinath Temple which is a UNESCO World Heritage Site

Prelims point: Bagmati River

2. India Young Professionals Scheme 2024.

Context: The UK Home Office has detailed the second and final ballot of 2024 for the India Young Professional Scheme.

About the **Young Professional Scheme:**

- It is part of an India-U.K. Migration and Mobility MoU signed in May 2021, announced at the G20 summit in Bali in November.
- It was formally launched in February 2023.
- Purpose:** Allows up to 3,000 degree-holding citizens aged 18 to 30 from India and the UK to live and work in each other's countries for two years.
- Significance:** India is the first visa-national country to benefit from this scheme.

Eligibility:

- Indian citizens aged 18-30 years.
- Must have a bachelor's degree or higher.
- Must have £2,530 in savings.
- Must not have children under 18 living with or financially supported by them.
- Must be selected in the India Young Professionals Scheme ballot before applying.

- vi. Ineligible if previously in the UK under this scheme or the Youth Mobility Scheme visa.

Validity:

- i. It allows Indian citizens to live and work in the UK for up to two years.
- ii. Entry to the UK can be at any time while the visa is valid, with the freedom to leave and return during the stay.
- iii. Visa holders must enter the UK within six months of issuance.

Opportunities:

- i. Applicants can pursue degree programs, including post-graduate studies or research in sensitive subjects. For these, an additional certificate under the Academic Technology Approval Scheme (ATAS) is required before beginning the course or research.
- ii Applicants are permitted to work in most jobs.
- iii Applicants can start their own business, provided the premises are rented, the equipment is valued at no more than £5,000, and they do not have any employees.

Prelims Point: About the Young Professional Scheme

3.FishMIP Initiative.

Context:The Ecosystem Model Intercomparison Project (FishMIP) report projects that exploitable fish biomass could decline by more than 10% by mid-century, particularly under high-emission scenarios, affecting many regions globally.

About FishMIP Initiative:



Source: FAO

- **Launch:** The Fisheries and Marine Ecosystem Model Intercomparison Project (FishMIP) was officially launched in 2013 by FAO.
 - **Purpose:** It provides knowledge to industry and governments to support effective planning for adaptive and resilient seafood sectors in the face of climate change.
 - **Network:** FishMIP includes over 100 marine ecosystem modellers and researchers from around the world.
 - **Collaboration:** FishMIP and the Food and Agriculture Organization (FAO) collaborate to understand the long-term impacts of climate change on marine ecosystems and fisheries using state-of-the-art numerical models.
 - **FishMIP2.0:** It was established in 2024 to enhance the reliability of modelling projections and address a broader set of policy-related questions relevant to food security and marine resource management, with a continued focus on climate change.
- About the Food and Agriculture Organization (FAO):**

Aspects	Description
About	<ol style="list-style-type: none"> 1. It is a specialized agency of the United Nations. 2. It is leading international efforts to defeat hunger and

	improve nutrition and food security.	fleeing persecution in Afghanistan, Bangladesh, and Pakistan to apply for citizenship.
Headquarter	Rome, Italy.	About Foreigners Tribunals (FTs):
Goal	To achieve food security for all, ensure people have regular access to enough high-quality food to lead active, healthy lives.	<ul style="list-style-type: none"> • Foreigners Tribunals (FTs) are quasi-judicial bodies established under the Foreigners (Tribunals) Order of 1964, which is based on the Foreigners' Act of 1946. • Their primary purpose is to determine whether a person suspected of being a foreigner is an Indian citizen. • These tribunals are unique to Assam, as other states handle cases of alleged illegal immigrants under the Foreigners' Act without the use of FTs.
Members	<ol style="list-style-type: none"> 1. 195 members, including 194 countries and the European Union. 2. World Food Programme (WFP) and the International Fund for Agricultural Development (IFAD) are its sister bodies. 	Structure and Operation:
Reports Published	<ol style="list-style-type: none"> 1. The State of the World's Forests (SOFO) 2. The State of World Fisheries and Aquaculture (SOFIA) 3. The State of Agricultural Commodity Markets (SOCO) 4. The State of Food Security and Nutrition in the World (SOFI) 	<ol style="list-style-type: none"> i) Each FT is headed by a member who is typically a judge, advocate, or civil servant with judicial experience. ii) According to the Ministry of Home Affairs, there were 300 FTs in Assam as of 2021. However, the State's Home and Political Department reports that only 100 of these tribunals are currently functioning.
		Functioning of an FT:
		<ol style="list-style-type: none"> i) An FT operates with powers similar to a civil court in certain matters, such as summoning individuals, examining them under oath, and requiring the production of documents. ii) Upon receiving a reference from the concerned authority, an FT must serve a notice to the person suspected of being a foreigner within 10 days. iii) The individual then has 10 days to respond to the notice and another 10 days to provide evidence supporting their case. iv) The tribunal is required to resolve the case within 60 days of the reference. If the individual fails to prove their citizenship, the FT can order their detention in a transit camp for eventual deportation.

Prelims point: Fish MIP Initiative

4. the Foreigners Tribunals (FTs).

Context: Recently, the Assam government instructed the Border wing of the State's police not to forward cases of non-Muslims who entered India illegally before 2014 to the Foreigners Tribunals.

- This aligns with the Citizenship (Amendment) Act of 2019, which allows non-Muslims including Hindus, Sikhs, Christians, Parsis, Jains, and Buddhists

Prelims Point: the Foreigners Tribunals.

5. Coalition of Epidemic Preparedness Innovations (CEPI).

Context: Recently, the Union Minister for the Ministry of Science & Technology inaugurated Asia's first health research "Pre-clinical Network Facility" under the Coalition of Epidemic Preparedness Innovations (CEPI) in Faridabad.

About Coalition of Epidemic Preparedness Innovations (CEPI):



- **About:** CEPI was launched in 2017. It is a partnership between public, private, philanthropic, and civil organizations.

- **Founders:** Governments of Norway and India, Bill & Melinda Gates Foundation, Wellcome Trust and World Economic Forum.

- **Mission:** To accelerate the development of vaccines and other biological countermeasures against epidemic and pandemic threats, making them accessible to everyone in need.

Achievements:

i) Supported the development of over 50 vaccine candidates or platform technologies.

ii) **Targets known high-risk pathogens** and potential future threats (Disease X).

iii) **Key initiative:** The '100 Days Mission' aims to reduce the time to develop safe, effective, and globally accessible vaccines to just 100 days.

About India and CEPI:

- The Department of Biotechnology, Ministry of Science and Technology, Government of India supports the Ind-CEPI Mission.

- Ind-CEPI Mission focuses on rapid vaccine development for epidemic preparedness. It is managed through a dedicated Program Management Unit (PMU) at Biotechnology Industry Research Assistance Council (BIRAC).

Prelims Point: Coalition of Epidemic Preparedness Innovations (CEPI)

6. Role of Finance Commission.

Context: The 16th Finance Commission, led by former Niti Aayog Vice-Chairman Arvind Panagariya, has started seeking public suggestions on its mandate.

About Finance Commission:

- The Finance Commission is a constitutional body established under Article 280 of the Indian Constitution to recommend the distribution of tax revenues collected by the Central government among the Centre and various States in India.

- Its primary role is to ensure a fair allocation of financial resources, balancing the fiscal needs of both the Centre and the States.

Role of the Finance Commission:

Distribution of Tax Revenues: The Finance Commission advises on the division of net proceeds of taxes between the Centre and the States (vertical devolution) and among the States (horizontal devolution). It aims to ensure that States have adequate funds to fulfill their responsibilities.

Principles Governing Grants-in-Aid: The Commission suggests principles that should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India. These grants are provided to help States manage fiscal

deficits and undertake specific development projects.

Augmenting Local Bodies' Resources: The Finance Commission also recommends measures to augment the revenues of municipalities and panchayats. This is crucial for ensuring that local bodies have sufficient funds to carry out their functions effectively.

Additional Financial Recommendations: It may also be tasked with other financial matters referred to it by the President of India, such as suggesting measures to improve the fiscal health of the States.

Decision on Horizontal Devolution:

The horizontal devolution, or the distribution of funds among States is determined by a formula devised by the Finance Commission. This formula takes into account various factors, including:

Population: A State's population is a significant factor in determining its share of the tax revenue.

Income Levels: The per capita income and overall economic condition of a State are considered to ensure equitable distribution.

Geographical Area: The size of the State is factored in to address regional disparities.

Fiscal Discipline: States demonstrating better fiscal management may receive additional incentives.

Duration of Recommendations: The recommendations of the Finance Commission are typically valid for five years.

Mains point: Finance Commission

7. Study related to decline in life expectancy post Covid

Context: In the aftermath of COVID-19, India experienced a significant decline in life expectancy, with the most substantial losses observed among socially disadvantaged groups.

Key Findings from the Study:

- India lost 2.6 years in life expectancy between 2019 and 2020, a decline greater than that observed in high-income countries.

- The decline was more pronounced among females, who lost 3.1 years, compared to males, who lost 2.1 years.

Age-Specific Impact:

i) The decline in life expectancy was higher among individuals aged 50-60.

ii) There were significant increases in mortality in the age groups 0-19 and 60-79 among females, and in the age group 40-59 among males.

iii) In high-income countries, the decline in life expectancy was primarily due to increased mortality above age 60, especially above age 80.

Social Group Disparities:

i) Muslims experienced the largest decline in life expectancy, from 68.8 years in 2019 to 63.4 years in 2020, a loss of 5.4 years.

ii) Scheduled Tribes saw a reduction of 4.1 years.

ii) Scheduled Castes experienced a reduction of 2.7 years.

iv) Both OBCs and high caste Hindus experienced a decline of 1.3 years each.

Gender and Social Group Analysis:

i) Muslim females experienced a loss of 6.6 years in life expectancy, compared to a loss of 4.6 years for Muslim males.

ii) Scheduled Castes females experienced a loss of 4.6 years, compared to a loss of 1.1 years for SC males.

iii) Scheduled Tribes males experienced a higher loss of 5.4 years, compared to 2.7 years for ST females.

iv) Females from OBCs and high caste Hindus experienced a loss of 1.9 years each, compared to a loss of 0.7 years for OBC males and 0.9 years for high caste Hindu males.

Mains Point: In the aftermath of COVID-19, India experienced a significant decline in life expectancy

8. Money bill and Finance bill

Context: The Chief Justice of India (CJI) has agreed to list petitions before Constitution Benches that challenge the use of the money Bill route by the Centre to pass certain laws and amendments.

About Money Bills:

- 1) It is defined by Article 110(1)(a) to (f) of the Constitution.
- 2) It deals exclusively with financial matters like taxation, government borrowing, and the Consolidated Fund. It includes bills like the Finance Act and the Appropriation Act.
- 3) It can only be introduced in the Lok Sabha. It is certified as money Bills by the Speaker of the Lok Sabha.
- 4) What Exactly is a Money Bill? A bill that deals 'only' with matters related to:
 - i. Taxation
 - ii. Government borrowing
 - iii. Consolidated Fund or Contingency Fund operations
 - iv. Appropriation of funds
 - v. Expenditure charged on the Consolidated Fund
 - vi. Receipts or audit of accounts of the Union or States

Note: Incidental matters related to these six topics can also classify a bill as a money Bill.

5) Procedure for a Money Bill:

- i) Money bill is introduced only in the Lok Sabha.
- ii) **Approval Process:** After passing in the Lok Sabha, the Rajya Sabha has 14 days to make recommendations. The Lok Sabha may accept or reject these recommendations.

Issues and Controversies

i) **Certification by Speaker:** The Speaker's certification of a bill as a money Bill has been contested.

ii) The Aadhaar Act (2016) and Finance Act (2017) faced judicial scrutiny for their classification as money Bills. In the Aadhaar case, the Supreme Court upheld the classification 4:1, with the current CJI dissenting.

iii) The Finance Act amendments were struck down in *Roger Mathew vs South Indian Bank* (2019) due to improper classification as a money Bill.

Way Forward

- i) The need for a seven-judge Bench to give an authoritative judgment on the definition of money Bills.
- ii) Speakers should strictly adhere to the definition of money Bills to uphold their spirit during certification.

Prelims Point: Money bill and Finance bill

9. Vatsalya Scheme

Context: In the recent Union Budget 2024-25, the Finance & Corporate Affairs Minister introduced a new pension scheme named 'Vatsalya' for minors.

About Vatsalya Scheme:

- **Description-** This scheme, part of the National Pension Scheme (NPS), aims to assist parents and guardians in preparing for their children's future financial requirements.

Key Features-

- Parents or guardians can open an account for their minor children and contribute towards their retirement savings, which will accumulate until the child reaches 18 years old.
- Once the child reaches adulthood, the accumulated amount will be transferred to the standard NPS account.

- On attaining the age of majority, the plan can be converted seamlessly into a normal NPS account.

- It operates similarly to the existing NPS, which helps individuals build a retirement corpus by making regular contributions throughout their careers.

- NPS contributions are invested in market-linked instruments like stocks and bonds. This offers the potential for higher returns than traditional fixed-income choices.

-

Significance of Vatsalya Scheme:

- It sets the foundation for responsible financial management from an early age.

- As these accounts transition into regular NPS plans when the child reaches adulthood, they ensure a smooth continuation of saving habits into adulthood.

Prelims Point: About Vatsalya Scheme

10.National Cooperative Policy .

Context: The Centre will introduce a national cooperation policy to systematically and comprehensively develop the cooperative sector.

About National Cooperative Policy:

- **Background-A** 48-member committee, led by Shri Suresh Prabhakar Prabhu, was set up to develop the New National Cooperation Policy. The committee has drafted the policy report, which is now being finalized.

- **Objective-**To promote a cooperative-based economic development model where technology, skills and education work together.

Recommendation of Committee-

- A national innovation fund be set up to encourage entrepreneurship in agricultural credit societies to strengthen rural economy.

- There is a need to strengthen cooperative credit systems and financing, build infrastructure and technology, promote quality education, training, and research, and establish effective governance and networks

Significance :

- It will help in realizing the vision of ‘Sahakar se Samridhi’, promoting a cooperative-based economic development model.

- It will bolster the cooperative movement in the country and deepen its reach in the grassroots.

The steps taken by the government recently to boost cooperative sector:

- The Ministry of Cooperation is collaborating with State Governments with the spirit of cooperative federalism to promote the cooperative sector’s development nationwide.

- The Ministry has urged NABARD(National Bank for Agriculture and Rural Development) to devise a scheme/action plan to establish new District Central Cooperative Banks (DCCBs) in districts without coverage.

- The government approved a plan to set up new multipurpose PACS or primary dairy/fishery cooperative societies in all uncovered Panchayats/villages over the next five years. This initiative will integrate multiple Government of India schemes such as DIDF, NPDD, PMMSY, and FIDF.

Prelims point:About National Cooperative Policy

11.Revamped Model Skill Loan Scheme.

Context: The revamped Model Skill Loan scheme was launched recently with Finance Minister Nirmala Sitharaman announcing the revision in her budget speech.

About Revamped Model Skill Loan Scheme:

- The government has introduced a revamped 'model skill loan scheme' for skill development courses.

- The Model skill loan scheme was launched in 2015. The previous scheme saw low uptake due to the low maximum loan limit and increasing course fees. Data showed that loans amounting to Rs 115.75 crore were extended to 10,077 borrowers until March 31 this year.

- The revised model skill loan scheme aims to provide better financial support for skill development courses, addressing previous limitations and expanding access to a wider range of courses and institutions.

New Features:

- The loan scheme now includes non-banking financial companies (NBFCs), NBFC-MFIs (micro-finance institutions), and small finance banks as eligible lending institutions, in addition to private, public, and foreign banks.

- The revised scheme will cover more skill courses, including non-NSQF (National Skill Qualification Framework) courses that are onboarded on the Skill India Digital Hub platform.

- Ministry of Skill Development and Entrepreneurship emphasized the need for adapting to future technologies and job market changes.

- The government is strategically planning for the country's future up to 2047, aiming to have a significant impact on the job market and people's lives through this revised scheme.

- The maximum loan limit has been increased to Rs 7.5 lakh from the previous Rs 1.5 lakh. The revised scheme is expected to help 25,000 students annually.

Prelims point:About Revamped Model Skill Loan Scheme

12.Exercise KHAAN QUEST

Context:Recently, the Indian Army contingent has departed for Exercise KHAAN QUEST.

About Exercise KHAAN QUEST:



PIB

Aspects	Description
About	<ol style="list-style-type: none"> 1. This exercise is a multinational military exercise. 2. It will take place from 27th July to 9th August 2024 at Ulaanbaatar, Mongolia. 3. It began as a bilateral event between the USA and Mongolian Armed Forces in 2003 and expanded to become a Multinational Peacekeeping Exercise in 2006. 4. The current edition is the 21st iteration of the exercise.
Purpose	To bring together military forces worldwide to collaborate and enhance their peacekeeping capabilities.
Participants	It includes 40 personnel mainly from a Battalion of the MADRAS REGIMENT, along with personnel from other Arms and Services including one Woman Officer and two Women Soldiers.

Aim

- To prepare Indian Armed Forces for peacekeeping missions in a multinational environment.
- To increase interoperability and military readiness in peace support operations under Chapter VII of the United Nations Charter.

Activities

- The exercise will involve practicing tactical drills such as establishing static and mobile checkpoints, and conducting cordon and search operations.
- This exercise aims to enhance interoperability, camaraderie, and build strong relationships among soldiers from the participating countries.

Prelims Point: About Exercise KHAAN QUEST

13.State of the World’s Forests 2024

Context: The “State of the World’s Forests 2024” report, released by the Food and Agriculture Organization (FAO). It provides a comprehensive analysis of global forest conditions and trends, revealing both positive developments and ongoing challenges.

Key Highlights of the report:

The report highlights a decline in deforestation rates compared to previous decades. Several countries have shown significant improvements in forest conservation.

Forest Coverage: As of 2020, global forest coverage was approximately 4.1 billion hectares (ha), or 31 percent of the land area. Major contributors to global forest area include:

i) Russia, Brazil, Canada, the United States of America, and China are top five

countries collectively accounting for 54 percent of the global forest area.

ii) Australia, the Democratic Republic of Congo, Indonesia, Peru, and India, among others, contributing to about two-thirds of the global forest area.

Deforestation Trends: Between 1990 and 2020, around 420 million hectares of forest were converted to other land uses.

Deforestation rates decreased from 15.8 million hectares per year (1990-2002) to 10.2 million hectares per year (2015-2020).

Regional Deforestation Rates:

Africa: 4.41 million hectares

South America: 2.95 million hectares

Asia: 2.24 million hectares

Forest Area Gains: In 2020, ten countries recorded annual gains in forest area, including China, Australia, India, Chile, Viet Nam, Turkey, the United States of America, France, Italy, and Romania.

- India ranked third globally in forest area gains, with an annual increase of 266,000 hectares from 2010-2020.

Mangrove Forests:

- The global mangrove area was recorded at 14.8 million hectares, with South and Southeast Asia contributing almost 44 percent of the total.
- The rate of gross global mangrove loss decreased by 23 percent between 2000-2010 and 2010-2020, though the rate of gain in mangrove area also decreased slightly.
- Asia was a major contributor to both mangrove loss and gains.

Impact of Fires:

- An estimated 340-370 million hectares of the earth’s land area are impacted by annual fires.
- Satellite data revealed that total fires in 2023 emitted 6,687 megatons of carbon dioxide globally, more than double the emissions from the European Union’s fossil fuel consumption.

Prelims Point: State of the World's Forests 2024" report,

14.Climate Finance Action Fund (CFAF)

Context: Azerbaijan, the host of the 29th Conference of Parties (COP29) to the United Nations Framework Convention on Climate Change, has announced the establishment of the Climate Finance Action Fund (CFAF).

About the Climate Finance Action Fund (CFAF):

- Azerbaijan will be a founding contributor to the fund, which will be supported by contributions from fossil fuel-producing countries and companies in the oil, gas, and coal sectors.
- The fund's secretariat will be based in Baku, Azerbaijan.
- The CFAF is one of 14 initiatives launched under the framework of the COP29 thematic days.
- **Purpose:** It aims to mobilize the private sector and de-risk investment through a public-private partnership model.
- The fund will include special facilities providing concessional and grant-based support to address natural disasters in developing countries.
- The initial fundraising round seeks to raise \$1 billion, and the fund will become operational once 10 countries have committed as shareholders.

Capital Allocation:

50% of the capital will be directed towards climate projects in developing countries,

focusing on mitigation, adaptation, and research and development.

The remaining 50% will support countries in meeting their Nationally Determined Contributions (NDCs) to achieve the 1.5°C temperature target.

Revenue Allocation: 20% of the revenues generated from investments will go to a Rapid Response Funding Facility (2R2F) that offers highly concessional and grant-based support.

Prelims Point: The Climate Finance Action Fund (CFAF)

SCIENCE AND TECHNOLOGY

1. Two Stealth Frigates to be delivered from Russia

Context: The two stealth frigates being built in Russia for the Indian Navy are to be delivered soon.

Delivery of Two Stealth Frigates to be delivered from Russia



Source: TH

- The first ship is named Tushil. It is ready and will be delivered by September.
- The second ship is named Tamal. It is expected to be delivered by February 2025.
- The Indian Navy currently operates six of these frigates, each weighing around 4,000 tonnes.

Agreement for Frigates between India and Russia

- In October 2016, India and Russia signed an agreement for four stealth frigates. Two frigates are to be directly imported from Russia. Two frigates will be manufactured locally by Goa Shipyard Ltd. (GSL).

- A \$1-billion deal was signed for the two frigates to be directly purchased from Russia.

- In November 2018, GSL signed a \$500-million deal with Rosoboronexport of Russia for materials, design, and specialist assistance to manufacture the two frigates locally.

- The Indian Defense Ministry and GSL finalized the contract in January 2019. All four ships are powered by engines from Zorya-Mashproekt of Ukraine.

UPSC Prelims Point: stealth frigates

2. EEG and Its Significance

Context:

- This year marks the 100th anniversary of the first human electroencephalogram (EEG), created by German physiologist Hans Berger.
- EEG measures the electrical activity in the brain generated by neurons. Researchers use EEG in fields like neuroscience, cognitive psychology, and neurolinguistics.

About EEG



Source: TH

- EEG stands for electroencephalography- ‘Electro’ pertains to electricity, ‘encephalo’ to the brain, and ‘graphy’ to representation.
- EEG is commonly used to diagnose epilepsy and monitor anaesthesia effects, sleep patterns, coma activity, and brain death.
- **Working of EEG-** Neurons in the brain move electrically charged particles, creating electrical activity. EEG tests visualize this activity and help distinguish between normal and abnormal brain states.
- **Advantage of EEG-** EEG setups are simple and cost-effective. The equipment is small, doesn’t emit radiation or noise, and is non-invasive and portable.
- **Disadvantages of EEG-**
 - a. Setting up an EEG test takes time, as this process includes applying gel and placing electrodes. Thicker hair can affect EEG readings.
 - b. EEG is good at tracking rapid electrical activity in the brain but is biased towards signals near the brain’s surface. It may not accurately pinpoint the origin of electrical activity within the brain.
- To overcome limitations, EEG is often used with other tests like MRI and advanced data processing methods.

UPSC Prelims Point: Electronce phalogra-phy

3. Chandipura virus (CHPV)

Context:

The Gujarat government announced that six children have died of suspected Chandipura virus (CHPV) infection since July 10, with a total of 12 suspected cases reported.

About Chandipura virus (CHPV)

CHPV belongs to the Rhabdoviridae family, which includes the virus-causing rabies.

Vectors: Transmitted by several species of sandflies (Phlebotomine sandflies, *Phlebotomus papatasi*) and mosquitoes (*Aedes aegypti*).

Transmission: The virus resides in the salivary glands of insects and is transmitted through bites to humans and other vertebrates.

Impact: The infection can reach the central nervous system, causing encephalitis (inflammation of brain tissues).

Symptoms of CHPV Infection:

Flu-like symptoms such as acute fever, body aches, and headache. It may lead to altered sensorium, seizures, and encephalitis. Additional Symptoms include respiratory distress, bleeding tendencies, and anaemia.

It can lead to mortality within 24-48 hours of hospitalization.

It primarily affects children below 15 years.

Management: Symptomatic management is crucial as there is no specific antiretroviral therapy or vaccine available. Rapid progression makes symptom management challenging.

Worst Affected Regions in India

Chandipura virus (CHPV) was first isolated in 1965 during a dengue/chikungunya outbreak in Maharashtra.

Major outbreaks in 2003-04 in Maharashtra, northern Gujarat, and Andhra Pradesh resulted in over 300 child deaths, with Gujarat reporting a 78% case

fatality rate (CFR) in 2004 and Andhra Pradesh 55% in 2003.

The virus is endemic to central India, where CHPV-spreading sandflies and mosquitoes are prevalent.

Contributing Factors to Outbreaks

Geographic and Seasonal Factors: Outbreaks often occur in rural, tribal, and peripheral areas, correlated with the prevalence of sandflies. Outbreaks are more frequent during the monsoon season.

Environmental Factors: The use of cow dung paint in kutcha houses attracts sandflies.

Changes in Disease Pattern

Sandflies have been found at higher altitudes than usual. New symptoms, such as brain haemorrhages, have been observed.

New centres for outbreaks have been identified in Gujarat, including tribal areas like Pavagadh, Khedbrahma, and Godhra.

UPSC Prelims point: Chandipura virus

4. Research related to LUCA and origin of life

Context:

All life on Earth can be traced back to the Last Universal Common Ancestor (LUCA). A recent study suggests that LUCA likely existed just 400 million years after Earth's formation. Further analysis indicates that this organism probably had an early immune system, suggesting it was already combating viruses.

Early Theories on the Origin of Life

- In the 1920s, Alexander Oparin and J. B. S. Haldane proposed the first theories

about the origin of life, suggesting that molecules in a “primordial soup” self-organized into early life forms. This idea is known as the Oparin-Haldane hypothesis.

Supporting Experiments:

- The Miller-Urey experiment in 1952 demonstrated that under certain conditions, inorganic compounds could form amino acids, the building blocks of proteins.
- Stanley Miller and Harold Urey mixed methane, ammonia, and water, and applied an electric current, simulating lightning, which resulted in the creation of amino acids.
- While the experiment's environmental assumptions may not fully align with early Earth conditions, it proved that amino acids could arise from inorganic molecules.

Alternative Theories: Some researchers propose that meteorites brought the building blocks of life to Earth. Discoveries of extraterrestrial organic material and amino acids on asteroids support this hypothesis.

About LUCA and the Molecular Clock

- The molecular clock theory, proposed by Emile Zuckerkandl and Linus Pauling and later refined by Motoo Kimura, helps estimate the timing of evolutionary events by analyzing the rate of genetic mutations.
- Researchers calibrate the molecular clock using known evolutionary events and fossil records.
- A study published in Nature Ecology and Evolution by researchers from the University of Bristol and Exeter estimated that the Last Universal Common

Ancestor (LUCA) originated around 4.2 billion years ago, shortly after Earth formed.

- This suggests LUCA predates previous estimates of life's origin on Earth, which were based on fossil records dating back 3.4 billion years.
- The Last Universal Common Ancestor (LUCA) likely had a small genome with about 2.5 million bases and around 2,600 proteins, sufficient for survival in its niche.
- Metabolites produced by LUCA could have supported a secondary ecosystem, aiding the emergence of other microbes.

Implications and Significance

- These findings significantly advance our understanding of how life emerged and evolved on Earth.
- The study also enhances our ability to search for similar forms of life across the universe.
- Insights from this research may contribute to engineering synthetic organisms for industrial, chemical, and biological processes, and creating ecosystems on other planets.

UPSC Prelims Point: Last Universal Common Ancestor (LUCA), The molecular clock theory.

5. High-Level Brainstorming Session on Avian Influenza

Context:

Recently, the Department of Animal Husbandry & Dairying convened a high-level brainstorming session on Avian Influenza.

About High-Level Brainstorming Session on Avian Influenza

Location: Krishi Bhawan, Delhi

Hosted by: Department of Animal Husbandry & Dairying

Objective of the session: To focus on surveillance and vaccination for Avian Influenza under the One Health approach.

Goals: To enhance surveillance, improve response mechanisms, and advance vaccine development.

Significance: The session was a significant step towards a coordinated and comprehensive approach to managing Avian Influenza.

Impact: Mitigate the effects of Avian Influenza and similar zoonotic diseases using the One Health approach.

Importance of the Poultry Sector in India

Role in Food Security: This provides high-quality protein and contributes to nutritional security.

Economic Impact: It supports livelihoods, especially in rural areas, and boosts trade and exports.

Growth Rate: It is steadily growing at 7-10% over the past decade.

Challenges: Highly Pathogenic Avian Influenza (HPAI) outbreaks hinder growth and impact exports.

Avian Influenza (HPAI) Challenges

- The H5 subtype virus is evolving and expanding geographically, with new genetic lineages emerging.
- Recent HPAI outbreaks in dairy cattle in the USA, with spillover to other mammals, highlight the potential for pandemics.

- One Health Approach is essential for addressing the threat by integrating human, animal, and environmental health.

Surveillance and Response Mechanisms

- The session emphasized enhancing current protocols for Avian Influenza surveillance and response.
- Key strategies include improving environmental surveillance, updating protocols, and strengthening monitoring at human-animal-wildlife interfaces.
- Efforts focus on winter surveillance of migratory birds and developing low-cost methods for monitoring sites like wet markets and poultry farms. Research by CCMB, ICMR, and NIV is showing promising results in this area.

Vaccination and Research

- Existing HPAI vaccines provide partial immunity but are not fully effective. The strategy remains focused on surveillance and culling due to biosecurity challenges.
- However, there is a strong push for advanced vaccine research for humans and poultry. ICAR-NIHSAD, Bhopal is developing an indigenous HPAI vaccine, while ICMR plans to create cell-culture-based vaccines for human use.

UPSC Prelims point: Avian Influenza

6. Late Blight Disease

Context:

Recently, CPRI issued an advisory related to late blight disease threatening potato crops.

About Late Blight Disease

- Late blight is a fungal infection caused by *Phytophthora infestans*.

- It seriously threatens potato crops causing significant yield losses and reducing tuber quality.

Weather Conditions Favor Disease Spread: Cool and moist weather conditions are ideal for the spread of late blight disease.

Advisory for Farmers

Proactive Management: Emphasis was placed on timely management to prevent disease outbreaks.

Spray fungicide containing mancozeb chlorothalonil at 0.2% (2 kg in 1,000 litres of water per hectare) immediately if the crop is not yet showing symptoms. Apply fungicide every 10 days, depending on the disease's intensity.

Use fungicides like cymoxanil + mancozeb, fermion + mancozeb, or dimethomorph + mancozeb.

Field Management Tips: It has been suggested to ensure good drainage in fields to prevent water logging.

- There is a need to remove weeds to reduce the risk of fungal infection.

UPSC Prelims Point: late blight disease

7. Study related to uranium concentration in drinking water

Context:

Recently, Bhabha Atomic Research Centre (BARC) study concluded that uranium concentrations up to 60 µg/l in drinking water are safe, suggesting that the new stricter standard of 30 µg/l may be counterproductive.

BARC Study Findings:

- The Atomic Energy Regulatory Board (AERB) in India previously set the acceptable level of uranium concentration in drinking water at 60 µg/l.
- In 2021, the Bureau of Indian Standards (BIS) revised the limit to 30 µg/l, aligning with World Health Organization (WHO) recommendations.
- A study by Bhabha Atomic Research Centre (BARC) scientists concludes that uranium concentrations up to 60 µg/l in drinking water are safe, questioning the necessity of the new BIS standard.
- The study argues that the more stringent BIS standard of 30 µg/l could lead to unnecessary purification costs without significant health benefits.
- Citing WHO studies, the BARC researchers state that small concentrations of uranium in drinking water pose no significant health risks, including cancer.
- National standards for uranium in drinking water vary globally, with limits in Finland and Slovakia set at 100 µg/l and 350 µg/l respectively, and South Africa at 70 µg/l. Countries like Canada and Australia have lower limits of 20 µg/l and 15 µg/l, respectively.

BIS and Health Impact Studies

- The BARC scientists highlight that BIS did not conduct health impact studies before implementing the 30 µg/l limit, unlike other agencies such as the US Environmental Protection Agency (EPA), which performed a cost-benefit analysis.
- The EPA set the drinking water limit for uranium at 30 µg/l after determining that there is no significant difference in health effects between 20 µg/l, 30 µg/l, and 80 µg/l.

Recommendations and National Considerations

- The BARC study emphasizes the need for country-specific standards considering local geological, socio-economic conditions, and population dynamics.
- The researchers suggest that, in the absence of clear evidence of health risks at small concentrations, India should consider retaining the AERB limit of 60 µg/l.
- The government has stated that uranium in drinking water is naturally occurring and not a result of mining activities.

Mapping Uranium Concentration

A comprehensive exercise by BARC researchers in collaboration with over 50 institutions across India showed that: 94% of 55,554 samples had uranium concentrations below the BIS standard of 30 µg/l. 98% of samples were below the AERB standard of 60 µg/l.

8. Microsoft Update Flaw Causes Global Disruption

Context:

A faulty update from CrowdStrike which is a Texas-based cybersecurity firm disrupted several Windows computers and servers worldwide. Digital systems in aviation, banking, telecommunications, hospitals, and TV channels were affected. The update caused a boot loop and a blue screen of death.

Impact on various sectors

- **Aviation Sector:** The faulty update led to significant delays and cancellations of flights worldwide. Airlines had to resort to manual check-in processes and handwritten boarding passes due to digital system failures.

- **eOffice Suite Disruption:** The Union government's eOffice suite, used for processing files and paperwork, was impacted for two hours. This caused temporary disruptions in government operations.
- **Automotive Sector:** Maruti Suzuki India Ltd had to briefly halt its production and dispatch operations due to the faulty update. The company managed to resolve the issue internally and resume normal operations.
- **Healthcare Systems:** Hospitals using Windows-based systems likely faced challenges in accessing patient records, scheduling, and other critical functions, although specific details were not mentioned.
- **Telecommunications and Media:** TV channels and telecommunications providers experienced outages, affecting broadcasting and communication services and leading to service interruptions for users.
- **Impact on Various Industries:** The faulty update affected numerous other sectors, including banking, retail, and hospitality, causing disruptions in digital transactions, customer service, and supply chain management.

Recovery Efforts

The faulty update has been withdrawn and issued has been fixed.

IT administrators had to follow a manual four-step recovery process shared by the Indian Computer Emergency Team (CERT-in).

Continuous communication with Microsoft and chief information security officers at critical infrastructure entities.

UPSC Prelims point: CrowdStrike

9. Pralay Missile

Context:

Armenia's reported interest in acquiring India's Pralay missile represents a significant opportunity for India.

About Pralay Missile:

Aspects	Description
About	<ol style="list-style-type: none"> 1. 'Pralay' is a short-range, quasi-ballistic surface-to-surface missile with a range of 350-500 km. 2. It has a payload capacity of 500-1,000 kg and is powered by solid fuel.
Developed by	The missile has been developed by the Defence Research and Development Organisation (DRDO) to meet the country's defence requirements along the Line of Actual Control (LAC) and Line of Control (LoC).

Key Features	<p>i) The Pralay missile never leaves the atmosphere and follows a flat trajectory.</p> <p>ii) It is powered by a solid propellant rocket motor.</p> <p>iii) The missile navigates to its target using inertial guidance and can be controlled throughout its flight.</p> <p>iv) For terminal guidance, it features a radio frequency Digital Scene-Matching Area Correlation (DSMAC) seeker.</p> <p>v) The missile is equipped with an indigenously developed Fused Silica Radar Dome (RADOME).</p>
Maneuverability and Stealth	<p>1. The Pralay missile includes a jet vane system for thrust vector control, allowing it to perform evasive maneuvers in the terminal phase of flight.</p> <p>2. The missile is designed with two sets of small fins to reduce its radar signature.</p>
Warhead Options	The Pralay missile can be equipped with different types of warheads, including pre-fragmented (PF), monolithic penetration cum blast (PCB), and submunition penetration cum blast (PCB) warheads.

UPSC Prelims Point: Pralay missile

10. Rogue Waves

Context:

University of Maryland mathematicians Thomas Breunung and Balakumar Balachandran have used data from 172 ocean buoys to train an AI program that can predict rogue waves up to five minutes in advance.

About Rogue Waves

Aspects	Description
About	Rogue waves are exceptionally large and unexpected ocean waves that are significantly taller than the average waves surrounding them.
Features	<p>i) Rogue waves are often at least twice the height of the typical waves in their vicinity.</p> <p>ii) These waves can form suddenly and without warning, making them extremely dangerous for ships, coastal structures, and offshore platforms.</p>
Causes	<p>i) They may occur when swells, which are long-wavelength waves generated by distant weather systems, converge and combine to create a much larger wave.</p> <p>ii) Rogue waves can also form when ocean currents interact with waves, compressing them into larger and more powerful waves.</p>
Threats	<p>i) Rogue waves pose a significant threat to maritime activities. They can damage or capsize ships, destroy coastal structures, and endanger human lives.</p> <p>ii) Between 2011 and 2018, rogue waves were responsible for the deaths of at least 386 people and the sinking of 24 ships.</p>

Challenges	Predicting rogue waves has been difficult due to their sudden and unpredictable nature.
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Note: The sea state refers to the general condition of the ocean's surface at a particular time and location, often described by the height, period, and power of waves. Rogue waves deviate greatly from the average sea state, standing out due to their large size and sudden appearance.

Role of AI in Predicting Rogue Waves

- Mathematicians Thomas Breunung and Balakumar Balachandran from the University of Maryland conducted the study.
- They utilized data from 172 ocean buoys to gather information on wave patterns.

AI Training and Prediction: The AI was trained to identify patterns in waves that precede rogue waves. The AI can predict rogue waves up to five minutes in advance with an accuracy of 73-75%.

Future Improvements: Incorporating more data such as water depths, wind speeds, and buoy locations can enhance the accuracy of predictions. Using more powerful AI systems could potentially lead to near-perfect predictions.

UPSC Prelims Point: Rogue waves

11. PC Emulator

Context:

Recently, Apple approved a PC emulator for iOS for the first time, enabling users to run classic software, mainly games, on iOS, iPadOS, and visionOS. Earlier this year, Apple updated its App Store guidelines to permit retro game console

emulators, mini-games, and HTML5 mini apps on iPhones.

About PC Emulator

- A PC emulator is software that allows a computer device to emulate another software, enabling it to run and use software designed for previously incompatible devices.
- Emulators allow software designed for one operating system, such as Windows, to run on another, like macOS, by emulating the design architecture of the original system.
- They are commonly used to run applications across different operating systems, play video games from older consoles, and test software on various platforms.

Legality of PC Emulators

- Emulators are generally legal as long as they do not use proprietary codes, and their primary function is to enable the use of software designed for different platforms.
- Sharing copyrighted ROMs online is illegal, even though the emulator itself might be legal.
- Using an emulator is legal if the user owns the software they are emulating, but running pirated copies of software or distributing ROMs without ownership is illegal.

Risks Associated with Emulators

- Using emulators from unofficial sources can be risky as they may contain malware that compromises system security.
- Legal risks include violating licensing agreements or copyright laws, which can result in penalties and refusal of

maintenance or technical support from the original software manufacturer.

- Emulators can be resource-intensive, potentially leading to decreased CPU performance, overheating, and battery damage.
- Poorly designed emulators may cause data corruption, crashes, or compatibility issues with the ROMs or software being used.

Legal Status of Emulators:

- Emulators are typically not banned due to their utility in software testing and development, but their legal status depends on specific laws in each country and how they are used.
- In India, emulators are legal, but their use must comply with copyright and intellectual property laws.
- Using emulators to run software without proper licenses or ownership can lead to legal trouble, while distributing ROMs without ownership is problematic.

UPSC Prelims Point: PC emulator

12. Brain-eating amoeba

Context:

Recently, five cases of amoebic meningoencephalitis in adolescents, including three deaths, reported in Kerala in the past three months. Health department response issued technical guidelines on prevention, diagnosis, and treatment of the infection.

About brain-eating amoeba

Aspects	Description
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About

1. Naegleria fowleri, commonly known as the “brain-eating amoeba,” is a single-cell organism found in warm freshwater environments such as lakes, hot springs, and poorly maintained swimming pools.
2. It was first discovered in Australia in 1965.
3. It is so small that it can only be seen with a microscope.
4. Only one species of Naegleria, Naegleria fowleri, infects humans.

How it infects?

1. The amoeba enters the human body through the nose and then travels to the brain.
2. This typically happens when someone swims, dives, or immerses their head in contaminated freshwater. In some cases, people have been infected by cleaning their nostrils with contaminated water.
3. So far, scientists have not found any evidence of Naegleria fowleri spreading through water vapor or aerosol droplets.
4. Once Naegleria fowleri reaches the brain, it destroys brain tissue and causes a dangerous infection known as primary amoebic meningoencephalitis (PAM).

Transmission	<p>1. Naegleria fowleri infection does not spread from person to person and does not manifest symptoms when contracted through other forms.</p> <p>2. The infection is primarily associated with warm freshwater environments, especially during hot summer months when water temperatures are higher.</p>		the prognosis remains grim.
Symptoms	<p>1. The first signs of PAM appear within one to 12 days after infection. Initially, symptoms might be similar to those of meningitis, including headache, nausea, and fever.</p> <p>2. In later stages, patients may experience a stiff neck, seizures, hallucinations, and coma.</p>	Treatment	<p>1. The US-based Centers for Disease Control (CDC) recommends treatment with a combination of drugs, often including amphotericin B, azithromycin, fluconazole, rifampin, miltefosine, and dexamethasone.</p> <p>2. These drugs have been used to treat patients who survived. Miltefosine, the newest of these drugs, has been shown to kill Naegleria fowleri in the laboratory and has been used to treat three survivors.</p>
Chances of Survival	<p>1. Naegleria fowleri infection is highly fatal, with a recorded death rate of 97%. The chances of survival from this infection are unfortunately low.</p> <p>2. The infection rapidly destroys brain tissue, leading to inflammation and neurological symptoms such as severe headache, fever, nausea, vomiting, stiff neck, seizures, and coma.</p> <p>3. Early diagnosis and prompt initiation of treatment are crucial, but</p>	Prevention Measures	<p>1. Swimmers should limit activities in warm freshwater bodies such as lakes, hot springs, and ponds unless these are disinfected with chlorine.</p> <p>2. It is advisable to use nose protection while swimming or diving, maintain clean swimming pools, and follow proper hygiene practices, including washing hands thoroughly with soap and water before and after water activities and before eating.</p> <p>3. Additionally, using sterile water for nasal cleaning is recommended.</p>

UPSC Prelims point: Brain eating amoeba

13. Lab-Grown Meat

Context:

Singapore is currently the only country in the world where lab-grown meat is available for purchase.

Lab-Grown Meat:

- **About:** Lab-grown meat, also known as cultivated meat, is produced by growing animal cells in a lab rather than raising and slaughtering animals.

Advantages: It requires less land and water. It can lower greenhouse gas emissions. It can also reduce the need for traditional livestock farming.

Challenges: Its productivity cost is high. There is difficulty in scaling up.

How is Lab-Grown Meat Cultivated?

Cell Collection: Animal cells, such as muscle cells, are collected from a live animal.

Cell Culturing: These cells are placed in a nutrient-rich culture medium. The medium contains essential nutrients like proteins, fats, carbohydrates, vitamins, and minerals.

Bioreactors: Cells are grown in bioreactors, which are large vessels that provide a controlled environment for cell growth. Bioreactors can range from small lab-scale sizes to large industrial-scale units.

Tissue Formation: Cells multiply and form muscle tissue. Techniques like scaffolding and tissue engineering help cells grow into structured meat products.

Harvesting: The cultivated meat is harvested from the bioreactors. It is then processed into various meat products like burgers, chicken nuggets, or minced meat.

International Trends: Countries like the U.S., Israel, Australia, and China are also exploring lab-grown meat. Investments in the industry have fluctuated, with a significant drop in global funding recently.

Future Prospects: The industry aims to reach cost parity with conventional meat by 2030. - Potential market value of about \$25 billion by 2030.

14. Discovery of traces of water in lunar soil by Chang'e-5 mission**Context:**

Chinese scientists have discovered water molecules in lunar soil samples brought back by the Chang'e-5 mission.

About the Discovery

Researchers from the Chinese Academy of Sciences (CAS) and other institutions found a hydrated mineral in the lunar soil.

This mineral, containing molecular water, was isolated and identified as a plate-like transparent crystal named "unknown lunar mineral" (ULM-1). The study ruled out contamination from Earth or rocket exhaust.

Background

The Chang'e-5 mission is China's first lunar sample-return mission which collected lunar soil in 2020.

Previous missions, including India's Chandrayaan-1 in 2009 was detected signs of water in the form of hydrated minerals.

Significance

The discovery adds to the understanding of water on the Moon, initially detected by NASA in 2020 in the Clavius crater.

Previous studies lacked samples from high latitude and polar regions, leaving the origin and chemical form of lunar hydrogen undetermined.

Future Research

- Chinese scientists isolated over 1,000 mineral clasts, suggesting more water-bearing minerals could be found.
- The Chang'e-6 mission, which returned to Earth with 2kg of lunar material from the Moon's far side, is expected to provide more insights.

UPSC Prelims point: Chang'e-5 mission

15. 'Triput' class advance frigates

Context:

Recently, the first of two advanced frigates being built by Goa Shipyard Limited (GSL) for the Indian Navy was launched at GSL, Goa.

About 'Triput' class advance frigates

- The frigate is named Triput, symbolizing the Indian Navy's strength and ability to strike effectively.
- The contract for constructing two Triput class advance frigates was signed between the Ministry of Defense and Goa Shipyard Limited on January 25, 2019.

Features

The Triput class frigates follow the Teg and Talwar class ships acquired from Russia. This marks the first indigenous construction of frigates by an Indian shipyard.

Triput class ships are designed for combat against enemy surface ships, submarines, and aircraft.

They measure 124.8 meters in length, 15.2 meters in width, with a draught of 4.5 meters.

These frigates have a displacement of approximately 3600 tons and can reach a maximum speed of 28 knots.

- They are equipped with advanced stealth features, weapon systems, sensors, and platform management systems.
- A significant portion of the equipment fit, including weapons and sensors, is of indigenous origin, supporting India's 'Aatmanirbhar Bharat' initiative.
- This initiative aims to boost defence production within India, creating jobs and enhancing the country's capabilities in defence manufacturing.

UPSC Prelims point: Advanced frigates

16. ICMR's New TB Detection System

Context:

The Indian Council of Medical Research (ICMR) is working to spread a new, affordable, fast, and easy-to-use TB detection technology. This initiative aims to transfer the technology to organizations, companies, and manufacturers for commercial use.

ICMR's New TB Detection System

The CRISPR Cas-based TB detection system, developed by the ICMR Regional Medical Research Centre in Dibrugarh, is considered the world's cheapest TB testing system.

Purpose: It detects the TB bacterium using DNA from saliva, can identify TB with preliminary symptoms, and is capable of testing over 1,500 samples within two hours.

The system is simple enough to be used in village primary health centers.

TB in India

Tuberculosis (TB) kills approximately 4,80,000 Indians annually, which equates to over 1,400 deaths daily.

Over a million TB cases remain undiagnosed or inadequately diagnosed each year, especially in the private sector, presenting a significant challenge.

India's progress in reducing TB cases and deaths has slowed recently.

The Health Ministry is revising protocols for TB medication and treatment duration. The goal is to eliminate TB by 2025, aiming for zero deaths, disease, and poverty due to TB.

ICMR's Role and Support

ICMR can form agreements with manufacturing companies to produce the TB detection system, governed by the ICMR IP Policy.

The Dibrugarh center will provide expert guidance and technical support throughout the production phases.

ICMR will support research and development (R&D) and clinical studies in collaboration with companies or institutions. Additionally, ICMR will facilitate technology validation under mutually agreed terms and conditions.

4. There will be no financial implications for ICMR unless specified otherwise.

17. Tinzaparin drug

Context:

Researchers have discovered that tinzaparin significantly reduces damage to

human cells caused by spitting cobra venom.

About Tinzaparin

- Tinzaparin is a drug used to treat serious blood clots and can reduce cell damage caused by spitting cobra venom.

It is a low-molecular-weight heparin (LMWH) with antithrombotic properties.

It is used for treating deep venous thrombosis, a condition where harmful blood clots form in the blood vessels of the legs.

Highlights of the Research

Tinzaparin blocks the interaction between the venom and its receptor in the cell by binding to venom molecules.

The toxicity of snake venom depends on the biological pathway that synthesizes heparan sulfate. Artificially stopping this pathway can reduce the venom's toxic effects.

Introducing molecules that closely resemble heparan sulfate can trick the body into shutting down the pathways responsible for its synthesis. Tinzaparin is one such molecule.

When tinzaparin was introduced immediately after exposing cells to the snake venom, the cells survived.

About Heparan Sulfate

Heparan sulfate is found on the surface of human and animal cells.

It is released from cells when the immune system responds to a threat.

UPSC Prelims point: Tinzaparin drug

18. Listeria and Listeriosis Disease Outbreak

Context:

Recently, two separate outbreaks of listeria have been reported in the United States and Canada, resulting in four deaths (two in each country) and several hospitalizations.

About Listeria and Listeriosis

About: Listeria monocytogenes is a type of bacteria found in soil, water, vegetation, and animal feces, which can lead to an infection called listeriosis when ingested through contaminated food.

Symptoms: Symptoms of listeriosis include vomiting, nausea, cramps, severe headache, constipation, and fever, and can appear up to two months after consuming the contaminated food.

High-risk groups for listeriosis include immunocompromised individuals, pregnant women, and the elderly, with the median age in the US outbreak being 75.

Pregnant women are particularly vulnerable, being 10 times more likely to develop a listeria infection, which can lead to pregnancy loss, premature birth, or life-threatening infection in newborns.

Treatment and Prevention: Treatment for listeriosis depends on the severity of the infection. Mild cases, where the bacteria remain in the intestines, may resolve with standard treatments for stomach infections, including antibiotics. However, if the infection spreads beyond the intestines, it leads to invasive listeriosis, presenting severe symptoms two weeks after consuming contaminated food.

UPSC Prelims point: Listeria and Listeriosis Disease

19. Caller ID Spoofing**Context:**

There has been increase in spoof calls in recent times.

About Caller ID Spoofing

Caller ID spoofing is the technique of falsifying the phone number that a call appears to originate from.

It is relatively easy to perform and has been used by enthusiasts, telemarketers, and fraudsters.

Uses and Risks:

Shielding Identity: Malicious individuals use spoofing to hide their identity during illicit activities.

Social Engineering: Spoofed caller IDs exploit the trust associated with familiar numbers to carry out social engineering attacks.

Circumventing Call Blocking: Spoofing helps bypass standard call blocking systems.

Exploiting IVR Systems: It can be used to exploit vulnerabilities in insecure Interactive Voice Response systems.

Legal Status and Commercial Services:

Caller ID spoofing is legal in many jurisdictions.

Various companies offer caller ID spoofing services, with the first commercial service launching in 2004.

Financial Impact:

- i) Loss of revenue to telecom providers.
- ii) Users face financial losses due to scam calls.

iii) Law Enforcement agency faces difficulty in investigating crimes involving spoofed IDs.

Technical and Regulatory Efforts

International Telecommunications Union (ITU) published a technical report in 2021 recommending PKI-based authentication to counter spoofing.

Telecom Regulatory Authority of India (TRAI) recommended the integration of Calling Name Presentation (CNAP) to display caller names based on KYC documents.

A 2022 consultation paper acknowledges the problem but lacks a detailed plan for tackling caller ID spoofing.

Department of Telecommunications (DoT): In May 2024, devised a system to identify and block international calls with manipulated Calling Line Identity (CLI).

DoT also issued directions to telecom operators to prevent such calls, though the effectiveness and implementation details are unclear.

Benefits of Fixing Caller ID Spoofing

For Consumers:

- Reduction in spam and fraud calls.
- Elimination of fraud reliant on false caller identity representation.

For Telecommunications Providers: Savings on revenue otherwise lost due to spoofing.

For Government and Public:

Increased revenue contributing to the economy.

Enhanced public safety through reduced fraudulent activities.

UPSC Prelims point: Caller ID Spoofing

20. Discovery of 'Dark Oxygen' and Its Implications for Deep-Sea Mining

Context:

Scientists have found an unknown process generating oxygen deep in the ocean, where sunlight does not reach and photosynthesis cannot occur. This discovery suggests the presence of new types of marine ecosystems.

Findings of the study

One explanation for this "dark oxygen" is that polymetallic nodules, which are lumps of iron, manganese, and other materials found on the ocean floor, might be creating electric charges that split water molecules, releasing oxygen.

These nodules are being considered for mining due to their high economic value.

The oxygen discovery was made in the Clarion-Clipperton Zone, an area off Mexico's west coast with a high concentration of polymetallic nodules.

The study found that oxygen levels increased at depths of 4 km, where sunlight cannot reach. This new oxygen source, termed 'dark oxygen,' is crucial for marine life survival but depends on the voltage generated by the nodules.

Concerns with Deep Sea Mining

Previous studies have shown that deep-sea mining can significantly harm marine ecosystems, and the new discovery of 'dark oxygen' adds to these concerns. The disturbances from mining could disrupt ecosystems that rely on this oxygen.

UPSC Prelims Point: Deep sea mining and Dark oxygen

21. Oropouche fever

Context:

On July 25, 2024, Brazil’s health ministry reported the first deaths from Oropouche fever in the state of Bahia, with two people having died from the disease.

About Oropouche fever



Source: Indian Express

	Oropouche fever spreads from person to person.
Symptoms	1. Symptoms typically begin four to eight days after being bitten. 2. Sudden onset of fever, headaches, pain, chills, joint stiffness, and occasionally nausea and vomiting. The symptoms are similar to those of dengue fever.
Treatment	There are currently no vaccines available for Oropouche fever. Treatment focuses on managing symptoms and aiding recovery rather than curing the disease.

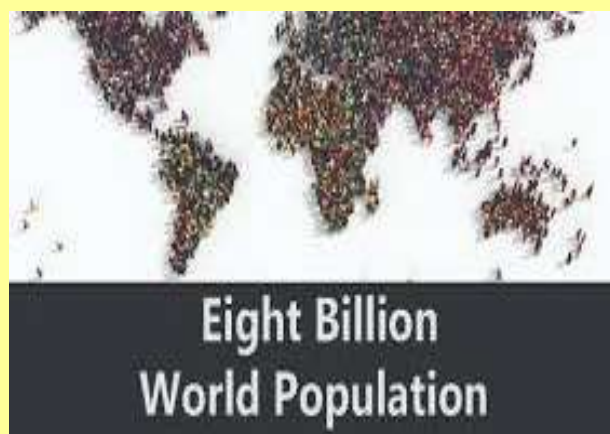
UPSC Prelims point: Oropouche fever

Aspects	Description
About	1. Oropouche fever is an emerging zoonotic arboviral disease caused by the Oropouche Virus (OROV). 2. The virus was first identified in Trinidad and Tobago in 1955.
Transmission	1. The disease is transmitted to humans through the bite of an infected midge, particularly the Culicoides paraensis midge, or sometimes through mosquitoes. 2. Urbanization, deforestation, and climate change increase the number of these insects, raising the risk of transmission. 3. There is no evidence that

SOCIAL ISSUES

1.UN'S "WORLD POPULATION PROSPECTS" REPORT

Context: The article discusses the UN's "World Population Prospects" report, which predicts global population growth until the early 2080s, with significant increases in sub-Saharan Africa. It highlights India's population dynamics, emphasizing the need for India to enhance workforce skills to capitalize on its demographic dividend before the population begins to age and decline.



The UN's "World Population Prospects" Report:

Global Population Trends According to the UN's Report:

Population Growth: The global population is expected to continue increasing, reaching over 10 billion by the early 2080s.

Regional Variation: Significant growth will occur in sub-Saharan Africa.

Countries like Somalia and the DRC, despite their economic and political instability, will see major population increases.

Resource Competition: These growing populations in resource-rich regions like the DRC could lead to geopolitical tensions

as countries vie for valuable natural resources.

B: Population Dynamics in India and Neighboring Pakistan:

- **India vs. China:** India will maintain a higher population than China for the foreseeable future.
- **Population Peak and Decline:** India's population is projected to start declining around 2062, approximately 20 years before the global population peak.
- **Pakistan's Growth:** Pakistan's population is expected to continue growing, potentially surpassing the United States to stabilize at around 390 million. This could influence regional dynamics and India's foreign policy.
- **Economic Impact:** The slowing growth of India's working-age population will increase the dependency ratio, signaling potential challenges in sustaining economic growth.

India Focus on for Future Growth:

- **Skill Development:** Prioritizing the enhancement of workforce skills is critical to maximizing India's demographic dividend.
- **Educational Reform:** Implementing diverse models of higher education, lifelong learning, apprenticeships, and vocational training to address current skill gaps.
- **Employment Quality:** Shifting focus from merely creating jobs to improving job quality and matching skills to market needs.
- **Utilizing the Youth:** As the dependency ratio is set to increase, leveraging the potential of young workers before the population ages is crucial to

achieve economic growth and avoid stagnation at middle-income levels.

Mains Point: The measures India should focus on to maximize its demographic dividend before its population begins to age and decline, according to the UN's "World Population Prospects" report.

2.THE FAILURES OF THE NATIONAL TESTING AGENCY (NTA) IN INDIA.

Context: The article discusses the failures of the National Testing Agency (NTA) in India, which has led to examination malpractices and a loss of trust in the system. It suggests decentralizing entrance exams and improving the school system to restore integrity and relevance to school education.



The National Testing Agency (NTA):

- **National Testing Agency- National Testing Agency (NTA)** was established as a Society registered under the Indian Societies Registration Act, 1860. It is an autonomous and self-sustained testing organization to conduct entrance examinations for admission/fellowship in higher educational institutions.

The main issues with the National Testing Agency (NTA):

- **Conduct of Examinations:** The NTA conducts exams in pen and paper mode, contrary to its original vision of electronic testing, increasing the risk of malpractice.

- **Examination Integrity Issues:** There have been widespread issues with question paper leaks, arbitrary grace marks, and selective re-examinations, as exemplified by the NEET-UG fiasco, which has undermined trust in the fairness of the exams.

- **Operational Weaknesses:** The NTA's structure is lean, with many functions outsourced, which has compromised its ability to manage exams effectively. The chairperson and CEO lack the expertise needed to build a robust testing institution.

Way forward:

- **Decentralize Exam Processes:** The central government should allow states to conduct their own entrance exams based on a standardized template to maintain consistency and reduce the risk of malpractice.

- **Form Expert Committees:** The government has constituted a seven-member committee, chaired by former ISRO chairman K. Radhakrishnan, to review and reform the examination process.

- **Strengthen Data Security:** The committee's terms of reference include improving data security protocols to enhance the robustness of examinations, addressing concerns raised by the NEET-UG leaks.

- **Integrate School Performance:** Include school-leaving marks in entrance exam scores to revive the importance of school education and reduce the influence of coaching centers.

- **Improve Governance:** Clearly define roles within the NTA and establish a responsive grievance redress mechanism to restore trust and ensure effective management.

Mains point:The National Testing Agency (NTA) and suggest potential reforms to address these challenges.

3.HEATWAVES ARE EVAPORATING THE RIGHT TO PLAY.

Context: The article discusses how climate change is reducing children's opportunities to play outdoors, particularly in India. It highlights the dangers of extreme weather like heatwaves and emphasizes the need for better urban planning and community efforts to ensure safe play spaces for all children.

The Importance of Play for Children:

- Play is crucial for children's overall development, enhancing their social skills, physical health, mental well-being, and creativity.
- The United Nations highlights its importance by designating June 11 as the International Day of Play, underscoring the right to play as vital for children.
- According to UNICEF, play is a fundamental right of every child, protected under Article 31 of the United Nations Convention on the Rights of the Child.
- The 'Value of Play' report reveals that globally, one in five children lacks sufficient playtime, and one in ten does not engage in outdoor play at all.

Climate Change Affect Children's Play:

- Climate change significantly impacts children's play by making outdoor environments unsafe and

inaccessible due to extreme weather conditions like heatwaves and floods.

- In India, children face increased risks with the country ranked 26 out of 163 on UNICEF's Children's Climate Risk Index (CCRI) 2021, indicating high vulnerability to climate impacts.

- A UNICEF analysis highlights that South Asia has the highest number of children exposed to extreme temperatures, which limits their opportunity to play outdoors and interact with peers, crucial for their development and mental health.

The Children Face in Accessing Play Spaces:

- Many children, especially in low-income areas, face significant barriers to accessing safe play spaces due to urbanization and environmental degradation.

- Socio-economic disparities, and social identities such as caste, class, disability, and gender, also limit access to leisure and public spaces.

- In India, public playgrounds are often non-existent or poorly maintained in poorer communities.

- Overcrowded and small living conditions in urban areas restrict indoor play opportunities.

- Places designated for playgrounds in some low-income areas are frequently misused as dumping grounds for solid waste, further reducing available spaces for children to play.

Way forward:

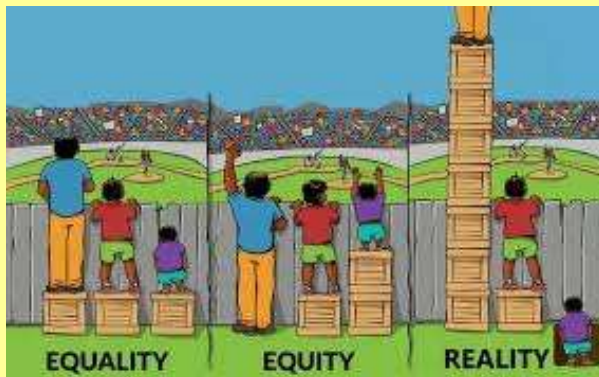
- Implement bioclimatic design principles in playground infrastructure to create safe, climate-adapted play areas.

- Expand access to green spaces within cities to counteract the urban heat island effect, making outdoor play more feasible.

- Community initiatives should focus on improving playground conditions and creating shaded areas in parks for children to play during warmer days.
 - Adapt and preserve traditional architectural techniques for natural cooling in building playgrounds and public spaces.
 - Encourage children to participate in local environmental actions, such as biodiversity mapping, to empower them and integrate their perspectives in urban planning and climate resilience strategies.
- Mains Point: The climate change affects children's opportunities to play outdoors.**

4. THE PROBLEMS WITH SUB-CASTE RESERVATIONS

Context: This article discusses the issue of sub-caste reservations within the Scheduled Castes (SC) and Scheduled Tribes (ST) communities in India.



- In an ongoing case in the Supreme Court, the decision on sub-caste reservation for SC/STs has been reserved. Now let's discuss the government's steps for empowerment of lower castes. The government's steps till now are in line with the Ambedkar's 3 policy measures.
- Dr. B.R. Ambedkar advocated for three policy measures to address the denial of rights and isolation faced by untouchables:**

- Legal safeguards against caste discrimination
- Reservations in legislature, public jobs, and educational institutions
- Measures to improve ownership of capital assets and education levels

The rationale behind these 3 policies:

- **Legal Safeguards and Reservations:** Ambedkar proposed legal safeguards to ensure fair representation in the present, complemented by reservations to address immediate discrimination in legislatures, jobs, and education.

- **Economic Empowerment:** Recognizing the limitations of legal safeguards and reservations, Ambedkar emphasized improving ownership of capital assets and education for long-term empowerment and capability building.

- Therefore, any sub-caste reservation should be extended with these 3 policies in mind.

The sub-caste reservation:

- Proponents argue that some sub-castes have benefited more than others, necessitating separate quotas for those lagging behind.

- However, it is often ignored that low job participation may stem from low education levels and lack of income-generating assets, not necessarily from discrimination by other sub-castes.

- If the sub-caste reservation is given without improving their capital ownership and educational participation, they may continue to have a low share in jobs and education.

Prelims Point: The sub-caste reservation

5. India needs a national law to tackle superstitious practices.

Context: The article discusses the need for a national law in India to tackle superstitious practices. It highlights debates between experts on whether existing state laws are sufficient or if a broader, national law is necessary to address the issue more effectively.

The Need for a National Anti-Superstition Law:

- **Gap in Current Legislation:** Current criminal laws do not specifically target superstitious practices, causing reluctance among police to act against fraudulent godmen.
- **Existing Acts' Limitations:** The Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954, is riddled with loopholes that fail to address many superstitious practices effectively.
- **Successful State Models:** States like Maharashtra and Karnataka have specific laws that successfully address superstitious practices, indicating the effectiveness of tailored legislation.
- **Need for Comprehensive Coverage:** Due to the uneven presence of state-specific laws, many regions remain unprotected; a national law would ensure comprehensive coverage, addressing superstitious practices uniformly across all states.

The Implementation Challenges:

- **Lack of Sensitization:** Law enforcement agencies are not adequately sensitized to address superstitious practices, influenced by cultural biases that hinder objective enforcement.
- **Reluctance to File Cases:** Police officers often show reluctance to file FIRs against superstitious practices, with investigations frequently compromised by political influence, leading to low conviction rates.
- **Caste Discrimination:** Superstitious practices often involve caste-based

discrimination, which is not always recognized or addressed by the authorities, highlighting a gap in understanding and enforcement.

Balance Laws and Religious Freedom:

Implement Reasonable Restrictions: Use Article 25 of the Constitution, which allows for reasonable restrictions based on public order, morality, and health, to balance laws against superstitious practices with religious freedom.

Define Exploitative Practices: Clearly define what constitutes exploitative and superstitious practices, distinguishing them from legitimate religious beliefs to prevent overreach.

Protect Fundamental Rights: Ensure that anti-superstition laws also protect other fundamental rights, like the right to life and against untouchability, highlighting that exploitative practices cannot be justified as religious rights.

Judicial Oversight: Maintain robust judicial oversight to review cases and prevent misuse of the law against religious practices.

Way forward:

Enact National Legislation: Implement a national anti-superstition law modeled after Maharashtra and Karnataka to provide specific legal provisions against superstitious practices.

Sensitize Law Enforcement: Conduct comprehensive training programs for police officers and first responders to address cultural biases and enhance their ability to handle superstitious practices.

Promote Restorative Justice: Develop restorative measures for victims, including establishing a victim compensation fund and ensuring social

security schemes for those affected by witch-hunting and other practices.

- **Foster Scientific Temper:** Encourage rational thinking and scientific temperament through education reforms and public awareness campaigns.
- **Monitor Implementation:** Regularly review and amend the law to address local concerns and improve its effectiveness, ensuring that it does not conflict with constitutional rights.

Mains Point: The reasons why existing state laws against superstitious practices in India might be insufficient and the potential benefits of a national law.

6. REASONABLE ACCOMMODATIONS AND DISABILITY RIGHTS.

Context: The article discusses the need for reasonable accommodations for Persons with Disabilities (PwDs) in India. It highlights institutions' reluctance to bear costs, suggesting an incentive and cost-sharing model to ensure compliance, diminish reluctance, and promote positive outcomes.



The Concept of Reasonable Accommodations:

Definition: Reasonable Accommodations (RAs) are adjustments that help Persons

with Disabilities (PwDs) exercise their rights equally with others.

Legal Framework: Defined in section 2.(y) of the Rights of Persons with Disabilities (RPwD) Act, 2016.

Examples include building ramps, providing assistive technologies, adapting job roles, and modifying workplace policies.

Importance: RAs ensure accessibility and equal opportunities for PwDs.

Exemptions: Institutions are exempt if proving RAs cause an undue burden.

Undue Burden: The Convention on the Rights of Persons with Disabilities (CRPD) outlines factors to determine undue burden, which institutions sometimes misuse to avoid compliance.

Current Scenario: Indian institutions are often reluctant to bear the costs, impacting the rights of PwDs.

Institutions Reluctant to Implement RAs:

Cost Concerns: Institutions adopt utilitarian approaches rather than welfare-based approaches, focusing on cost-benefit analysis instead of the needs of PwDs.

Prejudices: Institutions often believe PwDs are less productive, leading to reluctance in providing RAs.

Undue Burden Defense: Institutions use the “undue burden” clause to avoid compliance, often for expediency rather than genuine hardship.

Lack of Awareness: Many are unaware that most RAs can be implemented inexpensively, contributing to their reluctance.

Way forward:

Incentives: Offer tax credits, deductions, or subsidies to institutions providing RAs. This reduces financial pressure and encourages compliance.

- **Cost-Sharing:** Share costs of RAs with institutions demonstrating genuine financial hardship. The National Fund for PwDs can be utilized for this purpose.
- **Utilize National Fund:** Section 86 of the RPwD Act mentions the National Fund for PwDs, which remains underutilized and restricted in scope. Ensure the National Fund for PwDs is continuously funded and optimally used. Designate it as a line item in annual budgets.
- **Uniform Standards:** Implement a consistent legal standard for “undue burden” to prevent misuse by institutions.
- **Verification Process:** Institutions requesting funds should first prove their inability to afford RAs, considering any incentives already received. The governing body of the National Fund should verify these claims and consult experts to ensure that the RAs requested are necessary and proportional before releasing funds.

Mains Point: Examine the reasons why institutions in India are reluctant to implement reasonable accommodations for Persons with Disabilities (PwDs) and suggest measures to address these challenges.

7. URBAN TRANSFORMATION IN INDIA

Context: About 50 crore people, or 36% of India’s population, live in cities, with urbanization growing at 2% to 2.5% annually. The Budget stresses continuous investment in urban areas, identifying them as key growth centers. It offers substantial financial allocations and opportunities to foster planned development and city growth.

The initiatives are announced in the budget to ensure sustainable urbanization:

- **The Pradhan Mantri Awas Yojana (Urban)** -It proposes to construct another one crore housing units in urban areas with an investment of ₹10 lakh crore. Which include substantial central assistance and interest subsidies for affordable loans.
- **Industrial Workers-** It introduces rental housing projects with dormitory-style accommodation for industrial workers. These projects will be developed through public-private partnerships (PPP) with financial backing, including Viability Gap Funding (VGF) from both central and state governments.
- **The Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**- It allocates ₹8,000 crore for essential infrastructure such as water supply, sanitation, roads, and sewerage systems. It also promotes PPP models for infrastructure development with VGF support.
- **Capex-**It allocates ₹11.11 lakh crore for infrastructure capital expenditure, which includes highways and urban infrastructure. It also offers states an interest-free loan of ₹1.50 lakh crore for infrastructure development.
- **National Urban Digital Mission (NUDM)**- It introduces the NUDM with ₹1,150 crore for digitizing property and tax records using GIS mapping. This aims to enhance financial management for urban local bodies and property owners.
- **Weekly Haats-** The Budget suggests creating 100 weekly street food hubs in some cities. States are urged to

assist all cities in planning and setting up these hubs to meet local demands.

- **Solid Waste Management**-It is a major challenge for cities. The Budget plans to introduce bankable SWM projects with state governments and financial institutions. States and municipalities can use VGF for this. Cities like Indore have made SWM financially viable.

The city planning being addressed in the Budget:

- **Prioritization and Funding** -It prioritizes planned city development, allocating ₹25,653 crore as normal Financial Commission grants to municipalities. It also sets aside ₹500 crore for incubating new cities.
- **Mobility and Economic Planning** -It focuses on creating effective mobility plans to connect cities with peri-urban and new areas. This will enhance economic and transit planning through orderly town planning schemes.
- **Promotion of Electric Bus Systems**-₹1,300 crore is allocated to promote electric bus systems in cities, offering cost-effective and eco-friendly operations despite higher initial costs.

Way ahead:

- Cities, led by municipalities and supported by state governments, must demonstrate vision and determination to utilize resources effectively, including those from the Union Budget and their own revenues.

Mains Point: The measures are introduced in the budget to promote sustainable urban development.

8. CHALLENGES AND OPPORTUNITIES OF INDIAN PHILANTHROPY

Context: This article discusses the recent growth and potential of Indian philanthropy. It highlights increased giving among the wealthy, collaboration, strategic investments in areas like climate action, and the need for philanthropy to address inequality and support sustainable development.



Indian Philanthropy Evolved:

- **Historical Giving Culture:** India has a long tradition of giving across all communities.
- **Post-Liberalization Trends:** A new form of giving emerged among the newly wealthy and old wealthy with new wealth.
- **Economic Confidence:** With stock market rallies and wealth creation, the rich feel secure to give more.

Challenges and Opportunities Exist:

Challenges:

- **Funding Shortfall:** Despite 13% annual growth in social sector spending, India may miss the 2030 Sustainable Development Goals (SDGs).
- **Declining Foreign Funding:** Thousands of organizations have lost their FCRA licenses, reducing foreign donations.
- **International Donor Hesitation:** Some international donors are exiting

India or facing mistrust, particularly on climate issues.

Trust Issues: Building trust with the government and other stakeholders remains a challenge.

Opportunities:

Wealthy Contributions: Ultra-high net worth individuals can potentially contribute over Rs 75,000 crores annually, five times the 2023 CSR spend.

Strategic Philanthropy: Shift from traditional giving to impactful engagements led by first-generation wealth creators.

Collaborative Models: Growth in pooled funding and co-funding, with organizations like the India Climate Collaborative increasing investments.

New Entrants: Funders like Mirik Gogri bringing innovative ideas, with family giving up 15% last year.

Intermediary Success: Organizations like Dasra and Sattva opening minds and pockets, with Dasra's GivingPi involving over 300 families in philanthropy.

Way forward

Indian philanthropy is at a critical juncture. Increased giving and strategic investments can help address inequality and support sustainable development, contributing to a more equitable society and economy.

Mains Point: Discuss the evolution of Indian philanthropy and the challenges and opportunities it faces based on the recent trends and developments.

9.ROLE OF UDISE+ IN THE INDIAN EDUCATION SYSTEM

Context: The article discusses India's vast education system, which includes around 15 lakh schools, 97 lakh teachers, and about 26.5 crore students. It explains the role of the UDISE+ platform in managing and securing student data, ensuring compliance with privacy laws, and the need for clear protocols to protect children's personal information.

UDISE+ and APAAR:

- **UDISE+ (Unified District Information System for Education Plus):** Launched in 2018 by the Ministry of Education, it collects real-time data on school infrastructure, teachers, student enrollment, and performance.

- **APAAR (Automated Permanent Academic Account Registry):** Introduced with the National Education Policy 2020, it provides a unique identifier for students, collecting academic records and personal information like Aadhaar numbers through voluntary consent.

The Role Does UDISE+ Play in the Indian Education System:

- **Data Collection and Management:** UDISE+ collects real-time information on school infrastructure, teachers, student enrollment, and academic performance.

- **Policy Formulation:** This data helps the Ministry of Education create outcome-based policies to enhance education quality.

- **Resource Allocation:** By improving resource distribution, UDISE+ ensures that schools receive necessary support.

- **Monitoring Programs:** UDISE+ aids in tracking educational programs and trends to optimize their effectiveness.

- **Student Data Integration:** Linked with APAAR, it helps manage student admissions and reduce dropout rates.
- **Collaborations:** Works with DigiLocker and ed-tech companies to modernize education.

The Legal Standards Apply:

- **Supreme Court's Three-Part Test:** State actions must have a legitimate interest, be necessary and proportionate, and be imposed by law.
- **Right to Privacy:** Recognized as a fundamental right in the 2018 Justice K.S. Puttaswamy case.
- **Digital Personal Data Protection Act, 2023:** Requires specific and voluntary consent for data collection and sharing.
- **Data Minimization:** Ensures only necessary data is collected.
- **Aadhaar Integration:** APAAR and UDISE+ must comply with privacy and security standards.

The Operational Challenges:

- **Privacy and Consent:** There's limited guidance on obtaining verifiable parental consent for minors' data. Sharing children's data under UDISE+/APAAR may violate the Digital Personal Data Protection Act, 2023.
- **Data Security:** Protecting sensitive student data from theft and cyber breaches is a major concern.
- **Regulatory Updates:** The data-sharing policy for school education needs updating to reflect regulatory changes post the DPDP Act, 2023.
- **Identification of Actors:** There is a need to identify roles such as data fiduciary, data processor, and data principal for liability purposes.
- **Grievance Redressal:** There is no clear mechanism for grievance redressal related to data sharing and collection.

- **Standard Operating Procedures:** The absence of technical and legal protocols affects the management of data authenticity and stakeholder obligations.

Mains Point: Discuss the role of UDISE+ in managing India's education system and its associated operational challenges.

10. BUILDING SOCIAL CAPITAL.

Context : The Economic Survey 2023-24 showed progress in health and education in India, crucial for economic growth. However, the Department of School Education and Literacy saw a small 0.73% increase, while higher education funding was reduced by 16%, resulting in an overall 7% decrease for the Ministry of Education.

- **The combined social-sector expenditure** of the Centre and states as a percentage of GDP has increased in recent years. This increase is primarily driven by improved spending on health and healthcare facilities.

The significance of the Health and Education sector:

- **Complementary Nature:** - Health and education work together to boost living standards, productivity, and the effectiveness of human capital.
- **Economic Growth:** - Improvements in these areas are essential for steady economic growth, as shown by growth models.

The issues:

- **Global Comparison-** Despite enhanced allocation in recent budget, India's spending on education (2.7% of GDP) and health (1.9% of GDP) is still much lower than global standards.

- **Need for Educational Reform** -India wants to build top educational institutions, but the latest ASER report shows that over half of 14–18-year-olds struggle with basic division. This highlights the need for urgent improvements in education.
- **Higher Education Specifics- Funding** for autonomous bodies improved slightly, but the University Grants Commission (UGC) experienced a more than 50% budget cut compared to last year. This reduction could potentially hamper transfers to universities.

The way forward:

- Adequate healthcare funding is important for addressing health issues that impact productivity and for positioning India as a top destination for medical tourism.
- There is a need to Invest strategically in health and education sectors to meet higher sustainable growth over the long run.
- There is a need to focus on closing gaps in the educational System.

Mains Point: The Health and Education sectors important, and what problems do they face.

11.THE NEED OF CONDUCTING INDIA'S DELAYED CENSUS

Context: The 2021 Census, initially set to start in 2020, is still on hold. Although it was expected to begin in October 2024, the recent Budget 2024-25 allocated only ₹1,309.46 crore for the Census, down from ₹3,768 crore in 2021-22, indicating possible delays.

Meanwhile, preparations like updating maps, pre-testing questionnaires, and training staff continue in the Census

Directorates across States and Union Territories.

The conducting the Census a priority:

Social Justice-It is important because, due to the lack of one since 2011, many people have been unable to access various schemes, benefits, and services.

Women Empowerment-The enforcement of the Women's Reservation Act, which was enacted in 2023 to allocate 33% of seats in Parliament and Assemblies to women, depends on the completion of the Census.

- **Delimitation of Constituencies** - The Constitution (Eighty-fourth Amendment) Act of 2001 requires that constituency boundaries be redrawn only after the first Census done after 2026.

- **Caste-Based Census Debate**- There is increasing demand for a caste-based census to understand economic conditions of the marginalized communities better.

- **Clarifications on NPR**- The draft NPR for the next Census adds new questions about "mother tongue," "place of parents' birth," and "last residence," which were not in the 2011 NPR. Some States and groups worry these questions could be used for the National Register of Citizens (NRC).

The way forward:

- **Funding and Planning for the 2021 Census**- It is essential to ensure adequate funding in the 2025-26 budget to conduct the postponed 2021 Census as early as 2026. This includes finishing the first phase in 2025, which covers house listing, the housing census, and updating the National Population Register (NPR).

- **Census Preparation** -The ₹1,309.46 crore allocated can be used for early tasks such as defining enumeration areas,

improving questionnaires, and training staff for a digital census.

-
- **Prelims Point: The 2021 Census,**

MCQ

1. Consider the following statements

- 1) WMA are temporary advances given by the RBI to the centre and state governments to tide over any mismatch in receipts and payments.
- 2) If the WMA exceeds 90 days, it would be treated as an overdraft, the interest rate on overdrafts is 2 percentage points more than the repo rate
- 3) Special Drawing Facility is provided against the collateral of the government securities held by the state. The interest rate for SDF is one percentage point less than the repo rate

Which among the above statements is/are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

2. Which of the following is/are considered as High Quality Liquid Assets (HQLA)

- 1) Short-term bonds
- 2) Excess Statutory Liquidity Ratio (SLR)
- 3) Marginal Standing Facility (MSF)
- 4) Facility to Avail Liquidity for Liquidity Coverage Ratio (FALLCR)
- 5) Cash

Select the correct answer using the code given below.

- (a) 1,2,3,4, and 5 only
- (b) 1,2,3, and 5 only
- (c) 2,3, and 5 only
- (d) 1,2 ,3 and 4 only

3. With reference to Bharat Small Reactors (BSRs), Consider the following statements:

- 1) BSRs are a type of Small Modular Reactor (SMR) designed for India's energy needs
- 2) These reactors are compact, factory-built nuclear reactors with a power capacity of up to 100 MW.
- 3) They aim to provide a safe, cost-effective, and low-carbon energy source, particularly suitable for locations that cannot accommodate larger nuclear plants
- 4) The development of BSRs involves collaboration between the Indian government and the private sector.

Select the correct answer using the codes given below:

- (a) 1,2 and 3 only
- (b) 1, 3 and 4 only
- (c) 2 and 4 only
- (d) 1, 2, 3 and 4

4. With reference to Sangameshwara temple, Consider the following statements:

- 1) The Sangameshwara Temple, dedicated to Lord Shiva located in Telengana
- 2) It was built in the Dravidian architectural style
- 3) The temple was originally built in 740 AD by Chalukya ruler Pulakesin II on the Krishna River bank

How many of the above pairs are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) All three pairs
- (d) None of the pairs

5. The Ministry of Environment, Forest and Climate Change (MoEFCC) categorizes industrial sectors based on their Pollution Index (PI), which reflects the level of emissions, effluents, hazardous waste, and resource consumption.

With reference to Pollution Index ranges Consider the following pairs:

Colour category	PI range
1) Red category	PI score of 60 and above
2) White category	PI score of 21 of 40
3) Green category	PI score up to 20
4) Orange category	PI score of 41 to 59

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

6. Which of the following statements are correct about the GROWTH-India telescope?

- 1) India's first fully optical research telescope
- 2) The telescope, part of a joint venture by IIT Bombay and the Indian Institute of Astrophysics
- 3) This 0.7m wide-field telescope specializes in time-domain astronomy and is part of the Global Relay of Observatories Watching Transients Happen initiative
- 4) The telescope is located at the Indian Astronomical Observatory site at Hanle, Ladakh

Select the correct answer using the codes given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

7. Jadui Pitara often heard in the news roughly corresponds to which of the following?

- (a) It is a child-centric foundational literacy initiative

- (b) It is a form of architecture used in Mughal Period
- (c) It is a miniature Painting well developed in Kashmir region during medieval times.
- (d) None of the above

8. Which of the following statements are correct about Project Nexus?

- 1) It is an international initiative aimed at enabling instant cross-border retail payments by linking domestic Fast Payments Systems (FPSs) of multiple countries
- 2) India's Unified Payments Interface (UPI) will be connected with the FPSs of Malaysia, the Philippines, Singapore, and Thailand.
- 3) Project Nexus, conceptualized by the Bank for International Settlements (BIS) Innovation Hub, aims to standardize the connectivity between various instant payment systems (IPS) globally

Which among the above statements is/are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

9. Minami-Torishima Island, often heard in the news located in which one of the following countries?

- (a) Philippines
- (b) Japan
- (c) Taiwan
- (d) Vietnam

10. With reference to Dark Oxygen, Consider the following statements:

- 1) Dark oxygen" is oxygen produced in the deep ocean, independent of sunlight, by metallic nodules on the seafloor.
- 2) These naturally occurring metallic nodules act like batteries, generating electric currents that split seawater (H₂O) into hydrogen and oxygen.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2.

(d) Neither 1 nor 2

4) Anti-Tank Missiles

Nirbhay

11. Which of the following statements are correct about Methods of financing deficits in India?

- 1) Withdrawing cash balances held with the Reserve Bank of India increases the prices in an economy
- 2) Borrowing domestically from public has no effect on the supply of money and consequently on prices
- 3) The money supply would increase when government borrows from foreign countries

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

12 Which of the following statements are correct about Light Fidelity (Li-Fi) Technology?

- 1) Li-Fi is a wireless communication technology using visible light, specifically LED bulbs, to transmit data.
- 2) Li-Fi offers bidirectional mobile communication similar to Wi-Fi but with lower speeds, lower latency, and greater bandwidth
- 3) Li-Fi does not cause electromagnetic interference and utilizes unused visible light frequencies for communication.

Which of the statements given above is/are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

13. With reference to Missiles Used by Indian Military, Consider the following pairs:

Missile Type	Name
1) Ballistic Missiles	Prithvi
2) Cruise Missiles	HELINA
3) Anti-Radiation Missiles	RudraM

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

14. Which of the following statements are correct about Syntrichia caninervis?

- 1) It is one of the most abundant desert mosses in the world.
- 2) It possesses remarkable tolerance to gamma radiation
- 3) It is predominant in dryland regions, including the Gurbantunggut and Tengger Deserts in China and the Mojave Desert in the United States.
- 4) These are also present in mountainous regions of the Pamir, Tibet, Middle East, Antarctica, and circumpolar regions.

Select the correct answer using the codes given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

15. Colombo Process is a regional consultative forum comprising 12 Asian member states, Which of the following country/countries not a member's states?

- 1) Sri Lanka
- 2) Afghanistan
- 3) Bangladesh
- 4) Bhutan
- 5) Maldives
- 6) Pakistan
- 7) Vietnam

Select the correct answer using the code given below:

- (a) 1, 2, 4 and 5 only
- (b) 2, 3, 4, 5 and 6 only
- (c) 1, 2, 3, 6 and 7 only
- (d) 1, 2, 3, 4, 5, 6 and 7

16. Bohai Gulf often heard in the news roughly corresponds to which of the following regions?

- (a) Situated on the eastern Mediterranean coast
- (b) Situated on the northeastern coast of China
- (c) Situated on the North African shores
- (d) Situated on the northeastern coast of Australia

It aligns with similar frameworks for Scheduled Commercial Banks and Non-Banking Financial Companies while maintaining supervisory rigor.

PCA will apply to all tiers UCBs

Select the correct answer using the codes given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

17. Which of the following statements are correct about the Constitutional of India?

- 1) As per Article 253, Parliament has power to make any law for implementing any treaty with any other country or any decision made at any international conference, etc
- 2) As per Article 293, Places territorial limits on borrowing power of the states
- 3) All matters which bring the Union into relation with any foreign country” is listed under Union List.

Select the correct answer using the code given below.

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

18. Cultural Property Agreement (CPA) to prevent and curb the illicit trafficking of antiquities, was signed between Which of the following countries?

- (a) India and USA
- (b) India and China
- (c) India and Japan
- (d) India and Britian

19. Consider the following statements regarding Urban Cooperative Banks (UCBs).

- 1) The Reserve Bank of India (RBI) has introduced a Prompt Corrective Action (PCA) framework for UCBs
- 2) This framework aims to enable timely supervisory intervention and ensure UCBs implement necessary remedial measures to restore their financial health

20. With reference to Pralay missile, Consider the following statements:

- 1) The Pralay is a mobile, canister-based short-range ballistic missile (SRBM) with a range of 150-500 km
- 2) It features a quasi-ballistic trajectory and terminal maneuvering capabilities, making it difficult to intercept
- 3) It is fuelled by liquid propellant only

Which among the above statements is/are correct?

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

21. With reference to 3D hologram technology, Consider the following statements:

- 1) 3D hologram technology creates three-dimensional images that appear to have depth and motion without the need for special glasses
- 2) It uses principles of interference, reflection and diffraction
- 3) It uses lasers to record light patterns reflected from an object
- 4) The holograms are used for security in currency, authentication of products, and immersive displays in entertainment and education

Which of the statements given above is/are correct?

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

22. Consider the following statements:

- 1) Current account surplus is not always good because it can indicate reduced domestic investment or economic activity
- 2) Current account deficit is not always bad because it can signal strong domestic demand and investment in growth

Which of the statements given above is/are not correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2.
- (d) Neither 1 nor 2

23. Which of the following statements are correct about Credit-Deposit Ratio?

- 1) Credit-Deposit Ratio is a financial metric that shows the percentage of a bank's total deposits that are given out as loans
- 2) A very low ratio indicates poor credit growth
- 3) A high ratio indicates more reliance on deposits for lending purposes and may be risky.
- 4) RBI stimulate a minimum or maximum level for the ratio

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

24 Which of the following statements are correct about Palm trees?

- 1) Palm trees are part of tropical forest ecosystems and include varieties like Coconut, Oil Palm, Arecanut, and Palmyrah
- 2) They act as natural conductors during lightning strikes, preventing loss of lives.
- 3) Palmyrah is the State Tree of Tamil Nadu and Kerala

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only

- (d) 1, 2 and 3

25. The Indian Cyber Crime Coordination Centre (I4C) often heard in the news, was established as a scheme under Which of the following agency/Ministry?

- (a) Ministry of Home Affairs (MHA).
- (b) Niti Aayog
- (c) C-DAC
- (d) Ministry of Finance

26. Which of the following statements are correct about Sea Groynes?

- 1) Sea groynes are structures built perpendicular to the shoreline, extending into the sea
- 2) They are designed to reduce coastal erosion by trapping sand and sediment carried by currents
- 3) It traps sediment, leading to beach widening, reduced erosion and greater wave energy dissipation.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

27. In the Parliament, the Expunction Powers vested with?

- 1) President
- 2) Speaker of the lower house
- 3) Chairman of the upper house
- 4) Secretary general, Lok Sabha

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) 1, 3 and 4

28. The Jan Aushadi Kendra aims to provide affordable generic medicines to enhance public healthcare, India's first overseas Jan Aushadi Kendra was inaugurated in Which country?

- (a) Sri Lanka
- (b) Nepal
- (c) Mauritius
- (d) Bangladesh

29. With reference to Khelo India Rising Talent Program (KIRTI), Consider the following statements:

- 1) The KIRTI Programme is aimed at school children between nine- and 18-years age group
- 2) Program's one of the main objectives is using sports to reduce drug addiction and gadget distractions
- 3) Data analytics based on Artificial Intelligence is being used to predict the sporting acumen in an aspiring athlete

Which of the statements given above is/are correct

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

30. Which of the following statements are correct about Alderman in India?

- 1) They are experts from various fields nominated by elected Councilors in the municipal body
- 2) They can help the municipal body make important public decisions.
- 3) Aldermen do have voting rights in the election of the mayor
- 4) According to Delhi Municipal Corporation Act of 1957, the Lieutenant Governor of Delhi can appoint ten individuals as aldermen

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

31. Consider the following pairs:

Diseases name	Recent outbreak paces/Countries
1) Listeria	Brazil
2) Oropouche	US and Canada
3) Chandipura	Gujarat, India

How many of the above pairs are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) All three pairs
- (d) None of the pairs

32. What is Jerdon's Courser sometimes seen in the news?

- (a) A deciduous tree native to tropical regions of the Americas
- (b) A nocturnal bird endemic to Andhra Pradesh
- (c) An ape species of tropical and subtropical forests in Southeast Asia
- (d) A coffee plant variety endemic to Darjeeling

33. Which of the following statements are correct about ASMITA Project?

- 1) ASMITA Project, aimed at bolstering the availability of educational resources in Indian languages.
- 2) It is an initiative to develop 22,000 books in Indian languages in the next ten years
- 3) It is a collaborative effort of the UGC and the Bharatiya Bhasha Samiti, a high-powered committee under the Ministry of Education
- 4) The primary objective of this initiative is to promote and integrate Indian languages more deeply into the education system

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

34. Consider the following statements:

- 1) Exchange-Traded Fund (ETF) is a type of investment fund that holds a collection of assets like stocks, bonds, or commodities and is traded on stock exchanges, much like individual stocks
- 2) ETFs offer investors a way to diversify their portfolios with a single investment and are known for their lower fees and ease of trading

- 3) Inverse ETF aims to increase in value by the same percentage, effectively allowing investors to profit from a market downturn.

Which of the statements given above is/are correct

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3 only

35. Which one of the following statements is correct as per the Constitution of India?

- 1) Article 341 of the Indian Constitution empowers the President to specify castes, races, or tribes as Scheduled Castes (SC) for various states and union territories
- 2) Only Parliament holds the authority to amend this list by including or excluding groups through legislation, ensuring the criteria for inclusion are clearly defined and adhered to.
- 3) Article 15(4) empowers states to create special arrangements for socially and educationally backward classes like SCs and STs.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

36. With reference to Makhana Cultivation, Consider the following statements:

- 1) It is an important aquatic crop
- 2) It is grown in stagnant perennial water bodies like ponds, land depressions, oxbow lakes, swamps and ditches
- 3) It is grown only in tropical climate, requires temperature between 20degrees to 35 degrees
- 4) It is a kind of hydrophyte used both as drug and food

Which of the statements given above is/are correct?

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 4 only
- (d) 1, 2, 3 and 4

37. Consider the following statements regarding TIRZEPATIDE drug

- 1) Drug tirzepatide marking a significant advancement in obesity treatment
- 2) Tirzepatide, originally approved for diabetes
- 3) Central Drugs Standard Control Organization (CDSCO) has approved the weight-loss drug Tirzepatide for obesity treatment

Which of the statements given above is/are incorrect?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

38. What is Crew Health and Performance Exploration Analog (CHAPEA), sometimes seen in the news?

- (a) It is to study the challenges of long-duration missions to Mars by Nasa.
- (b) It is to study the challenges of deep-sea mission by China
- (c) It is to study the challenges faced by crew in India 's human spaceflight mission,
- (d) None of the above

39. Which of the following factors contributing to the vulnerability of the Ganges-Brahmaputra Delta to annual floods?

- 1) Heavy Rainfall
- 2) Riverine Morphology
- 3) Tectonic Activity
- 4) Tidal influence
- 5) Cyclonic impact
- 6) Encroachment on Floodplains
- 7) Land Use Changes

Select the correct answer using the code given below.

- (a) 1, 2, 4 and 5 only
- (b) 2, 3, 4, 5 and 7 only
- (c) 1, 3, 4, 5 and 6 only
- (d) 1, 2, 3, 4, 5, 6 and 7

40. Mutual Recognition Agreement (MRA) first bilateral agreement for organic products between

- (a) India and Taiwan

- (b) India and Israel
- (c) India and Japan
- (d) India and Bhutan

41. Medical Devices Information System (MeDevIS) an online platform designed to provide global open access to information on medical devices recently launched by

- (a) Ministry of Health and Family Welfare
- (b) NITI Aayog
- (c) World Health Organization (WHO)
- (d) Central Drugs Standard Control Organization

42. Which of the following is/are locomotive disability?

- 1) Leprosy Cured Person
- 2) Acid Attack Victims
- 3) Dwarfism
- 4) Multiple Sclerosis
- 5) Cerebral Palsy

Select the correct answer using the code given below.

- (a) 1, 2, 4 and 5
- (b) 1, 2, 3 and 4
- (c) 1, 2, 3 and 5
- (d) 1, 2, 3, 4 and 5

43. Consider the following pairs:

<i>State honours</i>	<i>Country</i>
1) Legion of Merit	France
2) Legion of Honour	Greece
3) Order of Honour	USA
4) Order of the Druk Gyalpo	Bhutan
5) Order of Saint Andrew the Apostle the First-Called	Russia

How many pairs given above are correctly matched?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

44. With reference to Kartarpur Corridor, Consider the following statements:

- 1) Connects Darbar Sahib Gurdwara in Pakistan with Dera Baba Nanak shrine in India's Punjab
- 2) Indian pilgrims need only a permit to cross into Pakistan
- 3) Built to celebrate the 550th birth anniversary of Guru Nanak Dev on November 12, 2019
- 4) The corridor will remain operational throughout the year

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

45. With reference to Siang River, Consider the following statements:

- 1) The Tsangpo, which originates in China, is called the Siang after it enters India through the Upper Siang district in the northeastern state.
- 2) The Siang joins two other rivers the Lohit and the Dibang downstream to form the Brahmaputra

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2.
- (d) Neither 1 nor 2

46. Zaporizhzhia nuclear power plant (ZNPP). sometimes seen in the news, Belongs to which country?

- (a) Ukraine
- (b) Iran
- (c) North Korea
- (d) Russia

47. With reference to Kashmir willow, Consider the following statements:

- 1) The Kashmir Willow (*Salix alba*) is a deciduous tree that can reach heights of up to 30 meters
- 2) Willows are known for their extensive fibrous root system and their ability to form symbiotic associations with mycorrhizal fungi.
- 3) Its high productivity, attributed to its efficient conversion of solar radiation into chemical energy.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

48. Consider the following statements:

Statement – I: The Supreme court of India has held in some judgements that the reservation policies made under Article 16 (4) of the constitution of India would be limited Article 335 for maintenance of efficiency of administration.

Statement – II: Article 335 of the Constitution of India defines the term 'efficiency of administration'.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

49. Which of the following has/have occurred in India after its liberalization of economic policies in 1991?

- 1) Share of agriculture in GDP increased enormously.
- 2) Share of India's exports in world trade increased.
- 3) FDI inflows increased.
- 4) India's foreign exchange reserves increased enormously.

Select the correct answer using the codes given below:

- (a) 1 and 4 only
- (b) 2, 3 and 4 only
- (c) 2 and 3 only
- (d) 1, 2, 3 and 4

50. Mashco Piro tribes often heard in the news roughly corresponds to which of the following region/country?

- (a) Peru
- (b) Cambodia
- (c) Democratic Republic of Congo
- (d) Nigeria

51. Consider the following:

- 1) Demographic performance
- 2) Forest and ecology
- 3) Governance reforms
- 4) Stable government
- 5) Tax and fiscal efforts

For the horizontal tax devolution, the Fifteenth Finance Commission used how many of the above as criteria other than population area and income distance

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five

52. Which one of the following best describes the concept of 'Small Farmer Large Field'?

- a) Resettlement of a large number of people, uprooted from their countries due to war, by giving them a large cultivable land which they cultivate collectively and share the produce
- b) Many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations
- c) Many marginal farmers in an area together make a contract with a corporate body and surrender their land to the corporate body for a fixed term for which the corporate body makes a payment of agreed amount to the farmers
- d) A company extends loans, technical knowledge and material inputs to a number of small farmers in an area so that they produce the agricultural commodity required by the company for its

manufacturing process and commercial production

53. In India, the term “Public Key Infrastructure” is used in the context of

- (a) Digital security infrastructure
- (b) Food security infrastructure
- (c) Health care and education infrastructure
- (d) Telecommunication and transportation infrastructure

54. With reference to the Constitution of India, prohibitions or limitations or provisions contained in ordinary laws cannot act as prohibitions or limitations on the constitutional powers under Article 142. It could mean which one of the following?

- (a) The decisions taken by the Election Commission of India while discharging its duties cannot be challenged in any court of law.
- (b) The Supreme Court of India is not constrained in the exercise of its powers by laws made by the parliament.
- (c) In the event of grave financial crises in the country, the President of India can declare Financial Emergency without the counsel from the cabinet.
- (d) State Legislatures cannot make laws on certain matters without the concurrence of the Union legislature.

55. With reference to Ayushman Bharat Digital Mission, consider the following statements:

- 1) Private and public hospitals must adopt it.
- 2) As it aims to achieve universal, health coverage, every citizen of India should be part of it ultimately.
- 3) It has seamless portability across the country.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3