



# ENSURE IAS

## Current Affairs Total (CAT)

December 2023



7900-44-7900

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## A. POLITY & GOVERNANCE

### 1. ECI GUIDELINES FOR DISABILITY AND GENDER SENSITIVE LANGUAGE IN POLITICS

The Election Commission (EC) issues guidelines to political parties for using disability and gender sensitive language.

#### Key Guidelines

- Prohibition of Derogatory (abusive) Language:** Political parties urged to avoid derogatory references to persons with disabilities (PwD) in public speeches, campaigns, and writings. All campaigns should be accessible to all citizens.
- Avoidance of Ableist Language:** Terms like "dumb," "retarded," "blind," "deaf," "lame," etc., are considered offensive and should be avoided.
- Internal Review and Rectification:** Campaign materials undergo internal review within political parties to identify and rectify offensive language.
- Declaration of Use of Sensitive Language:** Political parties should declare commitment to using disability and gender sensitive language on their websites.
- Adoption of RightsBased Terminology:** Parties encouraged to use rights based terminologies outlined in the **Convention on Rights of Persons with Disabilities (CRPD)**.
- Legal Consequences:** Violations of guidelines may fall under **Section 92 of the Rights of Persons with Disabilities Act 2016**.

#### Status of Persons with Disabilities in India

- As per the 76th round of **National Sample Survey (NSS)**, **2.21%** of the Indian population identifies as having a disability.
- Incidence of disability is **highest in the age group 1019 years**, emphasizing the need for early intervention and support.

#### Constitutional and Legislative Framework for PwD in India

- Constitution:**
  - Ensures equality, freedom, justice, and dignity for all individuals, including persons with disabilities, through Fundamental Rights.
  - Article 41** mandates effective provision for the right to work, education, and public assistance in cases of unemployment, old age, sickness, and disablement.
- Legislation:**
  - The **Rights of Persons with Disabilities Act, 2016 (RPwD Act)** replaced the 1995 Act, providing comprehensive rights for PwDs in India.
  - Government job reservation for PwD is **4%**, and seats reserved in government or aided higher educational institutions are **5%**.

#### Other Related Initiatives

- Accessible India Campaign
- DeenDayal Disabled Rehabilitation Scheme
- National Fellowship for Students with Disabilities

Major Challenges	Solution
1. <b>Accessibility:</b> Public spaces, transportation, and buildings lack proper features for <b>PWDs</b> . Only <b>3% of public buildings</b> in India are <b>accessible to PWDs</b> (Census of India, 2011).	1. <b>Improving Accessibility:</b> Develop and enforce strict building codes to ensure all public spaces, transport, and buildings are accessible to PWDs. Increase government funding for infrastructural modifications like ramps, lifts, and tactile paths.
2. <b>Inadequate Healthcare:</b> <b>37% of rural Indian PWDs</b> have limited <b>access to healthcare facilities</b> (Census of India, 2011). WHO reports a shortage of healthcare professionals trained in disability management in India.	2. <b>Enhancing Healthcare Access:</b> Train more healthcare workers in disability management and care. Expand healthcare facilities in rural areas specifically tailored for PWDs. Provide mobile healthcare units to reach remote areas.

3. <b>Limited Educational Opportunities:</b> Quality education for PWDs is challenging due to inadequate facilities and trained teachers. This results in exclusion from mainstream education.	3. <b>Expanding Educational Opportunities:</b> Recruit and train more teachers skilled in educating PWDs. Ensure all schools have the necessary facilities and equipment to support PWDs. Integrate special education needs into mainstream education policies.
4. <b>Employment Barriers:</b> PWDs face hurdles in finding suitable employment due to discrimination and lack of accessible workplaces. High unemployment rates among PWDs persist.	4. <b>Reducing Employment Barriers:</b> Enforce laws that prevent discrimination in hiring. Encourage companies to create more accessible workplaces. Offer incentives to employers for hiring PWDs.
5. <b>Stigma and Discrimination:</b> Prevailing stigma limits opportunities and acceptance of PWDs in Indian society.	5. <b>Combating Stigma and Discrimination:</b> Conduct awareness programs to educate the public about the capabilities and rights of PWDs. Promote media campaigns showcasing successful PWDs to change societal perceptions.
6. <b>Legal and Policy Gaps:</b> Existing laws for PWD rights in India lack consistent implementation and enforcement.	6. <b>Strengthening Legal and Policy Frameworks:</b> Ensure strict implementation of existing laws for PWD rights. Regularly review and update laws to fill any gaps in policy. Involve PWDs in the policymaking process to ensure their needs are met.

## 2. THE CHIEF ELECTION COMMISSIONER AND OTHER ELECTION COMMISSIONERS ACT, 2023

- On December 28, 2023, President Droupadi Murmu gave assent to the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023.
- The Bill replaces the 'Election Commission Act, 1991'. It provides for the appointment, salary, and removal of the Chief Election Commissioner (CEC) and Election Commissioners (ECs).
  - According to the provisions of the Bill, the CEC and ECs will be appointed by the **President** upon the recommendation of a **Selection Committee**.

### Background:

- In the Anoop Baranwal vs. Union of India case in 2023, the Supreme Court decided that the Chief Election Commissioner and Election Commissioners will be selected by a group.
- This group includes the Prime Minister, Leader of Opposition in Parliament, and the Chief Justice of India.
- The court said that this group will give suggestions and advice to the President about who should be appointed in the Election Commission.
  - This will continue until the Parliament makes a different law for this process.

### Overview of the Bill:

- Introduction and Purpose:** Focuses on the appointment, pay, and removal process of the Chief Election Commissioner (CEC) and Election Commissioners (ECs).
- Appointment of the Commission:**
  - The Election Commissioner will be appointed by the President, upon the recommendation of the **Selection Committee**.
  - This committee includes the Prime Minister, a cabinet minister, and the Leader of the Opposition in the Lok Sabha (or the leader of the biggest opposition party).
  - A Search Committee, led by the Cabinet Secretary, will give **5 names to the Selection Committee**.
  - The Selection Committee may consider any person other than those suggested by the Search Committee.
    - Recommendations of the Selection Committee will be valid **even when** there is a **vacancy** in this Committee.
- Eligibility Criteria:** Candidates should have worked in a top government position, similar to a secretary. The CEC and ECs need to be honest, understand and have experience in managing elections, and should have been a secretary (or a similar role) in the government.

4. **Salary and Service Terms:** Their pay is the same as that of the Cabinet Secretary. Before, it was the same as a Supreme Court Judge's salary.
5. **Removal:** The Bill keeps the same previous manner of removal of CEC and ECs as specified in the Constitution. An EC can be removed from office upon the recommendation of the CEC. The CEC or any EC may resign at any time by writing to the President.
6. **Terms of Service:** Same as earlier (**6 years** or until **65 years** of age whichever comes first).
7. **No re-appointment;** however, an EC can become a CEC within these limits.

**Constitutional Context:**

1. **Article 324:** Outlines the structure of the Election Commission of India (ECI).
2. **ECI's Role:** Responsible for electoral rolls and conducting various elections.
3. **Previous Act (1991):** Set CEC and ECs' salary level, but not their appointment process.

**Critical Analysis:**

1. **Concerns over Independence:** Government dominance in the Selection Committee. Salary control by the government could influence the Commission. Limiting eligibility to bureaucrats might exclude other qualified candidates.
2. **Unaddressed Issues in the Bill:** Removal process parity between CEC and ECs. Lack of provision for an independent secretariat for the ECI.

**Implications for the Election Commission:**

1. **Independence at Stake:** The bill's provisions might compromise the ECI's autonomy.
2. **Historical Perspective:** Contrast with the Constituent Assembly's vision of a free and independent ECI.
3. **Role of the Judiciary:** Supreme Court's emphasis on an independent body for fair elections.

The Bill plays a crucial role in shaping India's electoral integrity and democratic processes. Requires careful consideration to balance the need for an efficient appointment process to maintain the ECI's independence.

**3. LOKAYUKTA**

The Maharashtra legislative council has passed the Maharashtra Lokayukta Bill, 2022 replacing the Maharashtra Lokayukta and Upa-Lokayuktas Act, 1971.

**What is Lokayukta?**

1. The Lokayukta is an anti-corruption authority (similar to Lokpal) constituted at the state level.
2. The term "Lokayukta" is derived from the Sanskrit words "Loka," meaning people, and "Ayukta," meaning appointed.
3. The primary role of the Lokayukta is to inquire into allegations of corruption, maladministration, and abuse of official positions by public servants.

<b>Origin</b>	<ol style="list-style-type: none"> <li>1. Lokpal and Lokayukta are inspired by the <b>Ombudsman system</b> in the Scandinavian countries. An Ombudsman is an independent official who addresses complaints from the public against the actions or decisions of government agencies or officials.</li> <li>2. The <b>Administrative Reforms Commission</b> recommended the idea in the 1960s.</li> <li>3. Before the nationwide Lokpal and Lokayuktas Act in 2013, several states, including Maharashtra, had already set up their Lokayukta institutions.</li> <li>4. Maharashtra was the <b>1st state</b> to establish the Lokayukta in 1971.</li> </ol>
<b>Appointment</b>	<ol style="list-style-type: none"> <li>1. The Lokayukta and Upa-Lokayukta in Indian states are appointed by the <b>Governor</b>.</li> <li>2. During the appointment process, the Governor often <b>consults</b> <ol style="list-style-type: none"> <li>a. the Chief Justice of the State High Court</li> <li>b. the leader of the Opposition in the state legislative assembly.</li> </ol> </li> </ol>
<b>Tenure</b>	<ol style="list-style-type: none"> <li>1. The Lokayukta in most states can serve for either 5 years or until they reach the age of 65, whichever comes first.</li> <li>2. After this period, they cannot be appointed again for another term.</li> </ol>

**What are the Challenges faced by Lokayukta?**

- 1. Lack of clear legislation:**
  - a. The Lokpal and Lokayuktas Act of 2013 makes it mandatory for states to pass the Lokayukta Act within a year, but it lacks detailed provisions regarding the composition, appointment, and powers of Lokayukta.
  - b. As a result, States show inconsistency in appointing Lokayukta, leading to variations in structure. For example, some states like Rajasthan and Maharashtra have both Lokayukta and Up-Lokayukta, while others like Uttar Pradesh and Himachal Pradesh have only Lokayukta.
- 2. Lack of Autonomy:**
  - a. Lokayukta depends on the state government for funding and infrastructure.
  - b. This dependence results in interference by state government, compromising independence and autonomy.
- 3. Delay in Resolution:**
  - a. Lack of staff contributes to significant delays in investigating and resolving complaints.
  - b. As a result, timely resolution of corruption allegations becomes difficult, affecting the effectiveness of Lokayukta.
- 4. No Proper Immunity for Whistleblowers:**
  - a. Whistleblowers are individuals who courageously speak out and reveal information about wrongdoing, corruption, or illegal activities within an organization or government.
  - b. The Lokpal and Lokayuktas Act of 2013 doesn't give strong protection to whistleblowers.
  - c. Hence, they hesitate to come forward due to protection concerns.
- 5. Limited Authority:**
  - a. The decisions of Lokayukta are not binding; they can only suggest punishment. The final decision rests with the state.
  - b. Hence, their recommendations are not enforced strongly.

**What is the way forward?**

- 1. Amend Lokpal and Lokayukta Act (2013) for Uniformity:** There is a need to make clear and consistent rules for Lokayuktas across states by changing the existing law. This way, everyone knows how Lokayuktas should be chosen and what they can do. Also, there is a need to provide a fixed timeline for the completion of investigation and resolution of cases.
- 2. Strengthen Lokpal and Lokayukta Act:** There is a need to give Lokayuktas more power by changing the law. They should be able to investigate and punish corruption cases involving all public servants, even top officials like the Chief Minister and judges. They should have authority to protect the whistleblowers.
- 3. Increase Autonomy and Minimize Political Interference:** There is a need to help Lokayukta work better by giving them more freedom. This means providing more people, money, and resources. At the same time, we need to make sure politicians don't interfere too much, so Lokayukta can do their job without outside influence.

**4. IMPEACHMENT INQUIRY IN THE US**

The lower House of the US Congress (House of Representatives) has given the permission to begin the impeachment inquiry of President Joe Biden.

**What is Impeachment?**

1. Impeachment is like a serious investigation or trial for a high-ranking government official, such as a president. It happens when there are concerns that the official may have done something really wrong, like breaking the law or abusing their power.
2. The process involves a careful examination of the official's actions, and if they are found guilty, they can be removed from their position.
3. It's a way to hold powerful leaders accountable for their actions.

Aspect	United States Impeachment	Indian Impeachment
<b>Applicable On Whom</b>	The President, Vice President, and all civil officers of the Government	Only President (under Article 61).
<b>Who Can Start the Process</b>	Any member of the House of Representatives (lower house) can propose impeachment.	Both houses of Parliament can start the process.

<b>Grounds for Impeachment</b>	“Treason, Bribery, or other high Crimes and Misdemeanors”. This involves serious offenses or wrongdoing by public officials	“Violation of the Constitution” means not obeying the Constitution.
<b>Approval for Impeachment Charges</b>	Majority vote in the House.	Majority vote (passed by not less than 2/3rd of total membership) in the house that began the process.
<b>Trial Venue</b>	The Senate (Upper House) conducts the trial, presided by the Chief Justice.	Trial takes place in the other house (investigating house), headed by the presiding officer.
<b>Vote for Conviction</b>	2/3rd majority in the Senate is required for conviction and removal.	2/3rd majority in the investigating house results in removal.
<b>Judiciary’s Role</b>	Chief Justice of the Supreme Court oversees the Senate trial.	No direct involvement of the judiciary.
<b>Consequence of Impeachment</b>	Impeachment is only treated as an accusation and does not directly remove the official. The removal requires a separate vote.	Impeachment itself results in the removal of the President from office.
<b>Examples</b>	Three Presidents—Andrew Johnson, Bill Clinton, and Donald Trump—were impeached, but none were removed.	No President has been impeached so far in India.

## 5. THE GYANVAPI CASE

The Gyanvapi Mosque case involves a disagreement between two religious’ groups in Varanasi, India. This dispute focuses on the Gyanvapi Mosque and the nearby Kashi Vishwanath Temple, concerning who owns the land and its past.

### Background

- 1. Historical Beliefs:** A number of Hindus believe that the original Vishwanath Temple, devoted to Lord Shiva, was demolished during the Mughal period by Emperor Aurangzeb around 1669. They think that the Gyanvapi Mosque was constructed over its remains.
- 2. Legal Actions:** Recently, this matter has been brought to the courts. Various groups have submitted requests, asking for permission to worship at specific areas inside the mosque area, asserting these places are part of the former temple.
- 3. Court’s Role:** The courts have been involved in resolving these claims and handling the dispute between the two groups. The court directed a detailed examination of the site to get a clearer view of the matter.

- 4. Present Situation:** The case is still active in the courts, with both sides presenting different legal arguments and requests.

### Gyanvapi Case: From the Beginning

- 1. 1991:** First Case Filed: The initial court case was filed, stating that a Jyotirlinga of Lord Shiva was originally located where the mosque now stands, reportedly established by King Vikramaditya.
- 2. 1995:** Decision by Varanasi Court: The Varanasi court addressed key issues, including the impact of the Places of Worship Act, 1991. Initially, the case was considered not applicable under this Act but was later reviewed based on its own merits.
- 3. 1998:** Pause by Allahabad High Court: The Allahabad High Court suspended the case.
- 4. 2018:** Verdict by Supreme Court: A decision was made that temporary orders of suspension by courts would end after six months unless renewed. This led to the submission of new applications.
- 5. Recent Happenings:** The Supreme Court approved the cleaning of the “wazukhana tank” inside the Gyanvapi mosque, which has been closed since May 2022. The High Court stated that the 1991 case is not limited by the Places of Worship Act, 1991, and set a six-month time limit for the Varanasi court.

**Debates Presented**

- Arguments by Hindu petitioners:** They claimed that the Muslim community had illegally occupied the property and therefore Hindus have every right to use it as a place of worship and to renovate and reconstruct their temple.
- Arguments by Muslim Respondents:** The Places of Worship Act, 1991 was promulgated to foreclose any controversy in respect of any places of worship. As Muslims have been using the mosque premises to offer Namaz since 15th August 1947, its religious character cannot change, and it cannot be converted into a temple.

**What Does the Places of Worship Act, 1991 say?**

- The Act states that a place of worship's **religious nature must remain the same as it was on August 15, 1947.**
- It says **no person shall convert any place of worship of any religious denomination into one of a different denomination** or section.
- It declares that all litigation, appeals, or other proceedings ongoing before any court or authority on August 15, 1947, involving converting the status of a place of worship, will cease as soon as the law takes effect. There will be no more legal action taken.

**Exceptions To the Law**

- Ancient and historical monuments and archaeological sites and remains that are covered by the **Ancient Monuments and Archaeological Sites and Remains Act, 1958.**
- A suit that has been finally settled or disposed of; and any dispute that has been settled by the parties or conversion of any place that took place by acquiescence **before the Act commenced.**
- The **Act also does not apply to the place of worship commonly referred to as Ram Janmabhoomi-Babri Masjid in Ayodhya.** This law will have an overriding effect over any other law in force.

**Indian Secularism**

- Gives equal importance and treatment to all religions.
- Different from Western styles, the Indian approach actively involves the government in safeguarding and supporting all religions.
- Integrates secularism into the Constitution through several sections, including the **42nd constitutional amendment** which included the word "**secular**" in the introduction.

**Constitutional Articles Related to**

- Article 14**--equality before law;  
**Article 15**--prohibition of discrimination on grounds of religion, race, caste, sex or place of birth
- The provisions relating to "**Right of Freedom of Religion**" of the **Articles 25 to 28** make India a secular state.
- Article 29** of the Indian constitution assures that the **state shall not impose any culture on a minority community** other than its own.

**Conclusion**

As the Gyanvapi Mosque case continues, it is expected to shape how India handles similar disputes in the future. The final decision will likely set an example for balancing historical claims with modern laws, like the Places of Worship Act, 1991. It's also a test of India's commitment to treating all religions fairly. The outcome could influence how India's legal system and society manage religious diversity and historical heritage in the years ahead.

**6. CRIMINAL LAW REFORM ACTS IN INDIA**

The Indian criminal justice system is undergoing significant changes with the introduction of 3 new laws. These reforms, approved by President Droupadi Murmu and passed during the Winter session of Parliament, aim to modernize and streamline the legal process in the country.

**New Acts Introduced:**

- Bharatiya Nyaya Sanhita 2023:** Replaces the Indian Penal Code (IPC), 1860.
- Bharatiya Nagrik Suraksha Sanhita 2023:** Replaces the Code of Criminal Procedure (CrPC), 1973.
- Bharatiya Sakshya Adhinyam 2023:** Replaces the Indian Evidence Act (IEA), 1872.

**Legislative Process:**

- The bills were introduced in Parliament in August 2023. The Standing Committee on Home Affairs reviewed them, suggesting modifications for better alignment with current societal needs.

**A. BHARATIYA NYAYA SANHITA 2023**

**Objective:** The aim is to modernize laws related to criminal offenses, ensuring they reflect contemporary societal values and technological advancements.

**Key Changes and Provisions:**

- 1. New Crimes and Amendments:** Adds 20 new crimes while removing 19 outdated ones. The act significantly revises punishments, increasing jail time for 33 crimes, fines for 83 crimes, and introduces minimum punishment for 23 crimes.
- 2. Community Service:** Introduced as a punishment option for minor offenses. This is aimed at rehabilitation rather than just penalization.
- 3. Sexual Offences:** The age for gang rape victim classification has been increased from 16 to 18. The act criminalizes deceit (Cheating) in sexual relations, providing better protection against sexual exploitation.
- 4. Seditious:** The controversial charge of seditious has been removed, shifting focus to acts that threaten India's unity and integrity.
- 5. Terrorism & Organized Crime:** These are now defined with specific criteria, aiming to tackle these grave threats more effectively.
- 6. Group Offences (Mob lynching):** Strict punishments are introduced for group crimes, especially those based on bias, to deter communal and hate crimes.

**B. BHARATIYA NAGARIK SURAKSHA SANHITA 2023**

**Objective:** To replace the CrPC, 1973, with updated legal procedures that are more in tune with current realities.

**Key Changes and Provisions:**

- 1. Magistrates' Powers:** Enhances the powers of magistrates in imposing fines.
- 2. Arrest and Detention:** Revises rules for arresting individuals and introduces guidelines for bail of first-time offenders.
- 3. Crime Profits and Trials:** New rules for handling profits derived from crime and conducting trials in the absence of the accused.
- 4. Zero FIR and eFIR:** Introduces the concept of 'Zero FIR' and electronic FIR filing, making the process more accessible and efficient.
- 5. Investigation and Bail:** Changes investigation rules and modify bail conditions, aiming for a more fair and just system.
- 6. Technology in Courts:** Encourages the increased use of technology in court processes for efficiency.

**C. BHARATIYA SAKSHYA ADHINIYAM 2023**

**Objective:** To update the laws related to evidence, particularly considering the rise of digital records.

**Key Changes and Provisions:**

- 1. Electronic Records:** These are now given the same legal status as paper records, recognizing the significance of digital data.
- 2. Evidence Types:** Includes electronic forms in both documentary and oral evidence.
- 3. Spousal Testimony(Life partner statement):** The law now allows spouses to testify against each other, which is a significant shift from previous legal stances.

**Reasons for Reforms:**

- 1. Modernization:** The primary aim is to align the criminal justice system with current societal norms and technological advancements.
- 2. Efficiency:** Addressing the backlog of cases and undertrials in jails, and improving the conviction rates.
- 3. Fairness:** Ensuring a more just and fair legal process, recognizing the evolving nature of crimes and societal values.

**Conclusion:**

These reforms signify a major shift in India's approach to criminal justice, aiming to decolonize the legacy system and make it more relevant to the contemporary era. These changes emphasize justice delivery, constitutional values, and are expected to bring a positive transformation in the legal landscape of India. Regular monitoring and review will be crucial for the effective implementation of these reforms.

**7. PRESS AND REGISTRATION OF PERIODICALS BILL 2023**

On December 21, 2023, the **Lok Sabha** passed a new law called the 'Press and Registration of Periodicals Bill, 2023'. This new law **replaces** an old law from the time when Britain ruled India, called the **Press and Registration of Books Act, 1867**. The Bill has already been passed by Rajya Sabha.

**Why is this Important?**

- The old law was made a long time ago and had many rules that made it hard for people to publish newspapers, magazines, and other periodicals. The new law changes this, making it easier and quicker for people to start and run their publications.
- Objectives:**
  - a. Ease of Business:** Time saving the registration process for periodicals through a simple online system, eliminating physical interactions and delays.
  - b. Modernization:** Update regulations to adapt to the contemporary media landscape, including digital publications.

**What are the Main Changes?**

- 1. Online Process:** Now, people can apply online to start a publication. This means they don't have to do a lot of paperwork or meet officials in person.
- 2. Lesser Steps:** Earlier, starting a publication involved many steps, which took a lot of time. The new law has made this process much simpler.
- 3. No Need for Local Approvals:** Before, publishers had to get permission from local authorities like District Magistrates. Now, this is not required.

**How is the New Bill Different from the 1867 Act?**

- 1.** The old law was very strict.
- 2.** It was made to give the British government control over what was published. It had tough punishments like fines or jail for not following the rules.
- 3.** The new law is more relaxed. It takes away many of these harsh punishments and makes the process of starting and running a publication less complicated.

**Specific Changes in the New Law:**

- 1. For Printing Presses:** They just have to inform the authorities online about their work. No need for detailed paperwork.
- 2. Penalties:** The new law focuses more on financial penalties instead of criminal ones (like going to jail).
- 3. Decision Power:** The Press Registrar General now has more power to make decisions about registrations.

**Special Points:**

- 1. Restrictions:** People who have been punished for serious crimes, especially those against the country, are not allowed to publish periodicals.
- 2. Foreign Publications:** If someone wants to print a foreign magazine or newspaper here, they need to get permission from the government first.

**Conclusion**

This new law is seen as a big step in giving more freedom to the press and making it easier for people to start and run publications. It updates the old rules and makes them fit better with today's needs and technologies.

**8. INDIA'S TELECOMMUNICATION ACT, 2023**

The Telecommunications Bill, 2023, was passed by the Indian Parliament in **December 2023** and came into effect on 24th December 2023. It replaces the **Indian Telegraph Act, 1885**, (made by British-

India Government) which was considered outdated and unable to handle the modern advancements in telecommunications.

**Key Features****1. Authorisation for Telecom Activities:**

- a.** Prior permission from the central government is needed for providing telecommunication services, setting up or expanding telecom networks, and possessing radio equipment.
- b.** Current licenses will remain valid for their given period, or 5 years if the period is not mentioned.

**2. Assignment of Spectrum:**

- a.** Spectrum for telecom will be given through auctions.
- b.** For certain purposes like national security, disaster management, and public services like DTH, it will be allocated directly by the government.
- c.** The government can change the use or owner of any spectrum and allow its sharing, trading, or surrender.

**3. Powers of Interception and Search:**

- a.** The government can intercept or block messages for public safety or emergency reasons.
- b.** This includes reasons like state security, preventing crimes, and maintaining public order.
- c.** The government can also take temporary control of telecom networks during emergencies.

**4. Protection of Users:**

- a.** The government will ensure measures to protect users, like consent for advertising messages and a system to block unwanted messages.
- b.** Telecom companies must have an online system for complaints and their solutions.

**5. Right of Way:**

- a.** Companies can use public or private property for laying telecom infrastructure.
- b.** This right must be given fairly to all companies.

**6. Appointments to TRAI (Telecom Regulatory Authority of India):**

- a.** Changes in the TRAI Act to allow people with 30 years of professional experience as Chairperson and 25 years for members.

**7. Digital Bharat Nidhi:**

- a.** Renaming the Universal Service Obligation Fund to Digital Bharat Nidhi.
- b.** It will be used for telecom services in less served areas and for research in telecom.

**8. Offences and Penalties:**

- a. Penalties for unauthorized telecom services or access include jail up to 3 years, a fine up to 2 crore rupees, or both.
- b. Breaking authorisation rules can lead to a fine of 5 crore rupees.
- c. Illegal equipment or network use can lead to a fine of 10 lakh rupees.

**9. Adjudication Process:**

- a. A government appointed officer will handle civil offences under the bill.
- b. Decisions by this officer can be appealed to the Designated Appeals Committee and then to TDSAT within 30 days.

**Potential impact:**

- a. The Act is expected to boost digital infrastructure development and enhance internet connectivity in India.
- b. Increased competition and innovation in the telecom sector due to flexible spectrum allocation.
- c. Improved user protection and cyber security.
- d. Accelerated progress towards achieving the goals of the Digital India initiative.

**Challenges and concerns:**

- a. Broad and undefined language in some provisions regarding government intervention raises concerns about potential misuse of power.
- b. Critics argue that the Act gives too much control to the central government, leaving less autonomy for the Telecom Regulatory Authority of India (TRAI).

Overall, the Telecommunication Act, 2023, is a significant step towards modernizing India's telecommunication sector and advancing the country's digital transformation journey. However, its long-term impact will depend on effective implementation and addressing potential challenges related to governance.

## 9. PARLIAMENT PASSES JAMMU AND KASHMIR RESERVATION AND REORGANISATION (AMENDMENT) BILLS

Parliament passed 2 important bills: 1) Jammu and Kashmir **Reorganisation (Amendment) Bill, 2023** and 2) Jammu and Kashmir **Reservation (Amendment) Bill, 2023**.

These bills focus on people displaced from Pakistan Occupied Kashmir (**PoK**) and aim to provide them representation in the Jammu and Kashmir Assembly.

**Background**

1. Before Article 370 was removed, Jammu and Kashmir had different rules for deciding the boundaries of Lok Sabha and Assembly seats. After Article 370 was removed, Jammu and Kashmir became a Union Territory.
2. A Delimitation Commission was formed in March 2020 to decide new boundaries for Assembly and Lok Sabha seats not only in J&K but also in Assam, Manipur, Arunachal Pradesh, and Nagaland. The commission finished its work recently, increasing J&K's assembly seats from 107 to 114.

**Jammu and Kashmir Reorganisation (Amendment) Bill**

1. **What is the Bill?** The Jammu and Kashmir Reorganisation (Amendment) Bill, 2023, changes the Jammu and Kashmir Reorganisation Act of 2019.
  - This Act was about changing the state of Jammu and Kashmir into 2 union territories: Jammu and Kashmir (with its own law-making group) and Ladakh (without its own law-making group).
2. **Changes in Legislative Assembly Seats:** Originally, the Jammu and Kashmir Legislative Assembly had 83 seats, with 6 reserved for Scheduled Castes and none for Scheduled Tribes. Now, the total seats are increased to 90. Out of these, 7 are for Scheduled Castes and 9 for Scheduled Tribes.
3. **Special Provisions for Kashmiri Migrants:** The new Bill allows the **Lieutenant Governor** to choose up to **2 members from the Kashmiri migrant community** to be part of the Legislative Assembly. One of these members **must be a woman**. This includes people who left the Kashmir Valley or other parts of Jammu and Kashmir after November 1, 1989, and are registered with the Relief Commissioner. It also covers those who haven't registered due to certain reasons like government jobs, work, or owning property in the area they left.
4. **Representation for Displaced Persons:** The Bill also allows for one member in the Legislative Assembly to represent displaced persons from Pakistan Occupied Jammu and Kashmir. These are people who left their homes in Pakistan Occupied areas during the conflicts of 1947-48, 1965, or 1971 and haven't returned.

**The Jammu and Kashmir Reservation (Amendment) Bill, 2023**

1. **What is the Bill?** The Jammu and Kashmir Reservation (Amendment) Bill, 2023, aims to make

changes to the Jammu and Kashmir Reservation Act, 2004. It aims to give reservation in jobs and educational institutions to Scheduled Castes, Scheduled Tribes, and other backward classes as identified by the UT of Jammu and Kashmir.

**2. Who It Affects:** The Act originally helped **3** groups:

- I. People living in areas declared backward.
- II. People near the Actual Line of Control and International Border.
- III. Weak and under-privileged social castes.

The **new Bill** changes the **3rd** group to include **'other backward classes'** as decided by the Union Territory of Jammu and Kashmir. The term **'weak and under-privileged classes'** is taken out of the Act. Now, the focus is more on **'other backward classes'**.

This bill is significant because it updates who will get these benefits in Jammu and Kashmir. By changing the categories, the government can better identify and help people who need support in education and employment. It is an important step towards making sure that all groups in Jammu and Kashmir have fair chances in jobs and education, especially those who come from backgrounds that have not had these opportunities in the past.

## 10. POST OFFICE ACT, 2023

**1. India Post**, the country's postal service, owns an extensive network with remarkable reach across India. It spans from the highest freezing mountains to the hottest deserts in the country.

(a) The **East India Company** inaugurated the **first post office in Kolkata** in **1727**. Proper regulation took over 125 years, with **Governor General Lord Dalhousie** appointing a **Post Office Commission** in **1850**.

(b) The Commission's recommendations were framed as **Post Office Act XVII, 1854**, recognizing **Indian Post Offices** as an organization of national importance. It was replaced by the **Post Office Act 1866**, subject to several amendments.

**2.** After a gap of nearly 125 years, the **Post Office Bill, 2023** was introduced in August in the **Rajya Sabha**. The President has granted assent to the bill, aimed at **revitalizing** (to restore something to life or give it new life) **Post Offices**.

**3.** It is set to replace the **Indian Post Office Act (IPOA), 1898**, enacted during the tenure of **Viceroy Lord Elgin-II (1894-1899)**.

**4. Need for a New Act:** The **IPOA, 1898** primarily addressed mail services, necessitating a new Act to ensure better governance for Post Offices.

(a) This is crucial as Post Offices now offer diversified services beyond mails, including **India Post Payments Bank** and insurance schemes, evolving into a vehicle for various citizen-centric services.

Indian Post Office Act, 1898	Post Office Act, 2023
1. The central government holds the exclusive privilege under <b>Section 4</b> to convey letters and provide related services.	1. Does not grant exclusive privileges to the central government.
2. Specifies services, including the delivery of letters, postcards, parcels, and money orders.	2. Allows the central government to prescribe the services provided by India Post.
3. Allows interception during public emergencies, for public safety, tranquility (state of peace), or as authorized by the central or state governments. <ul style="list-style-type: none"> <li>• Officers can examine articles suspected of containing prohibited goods or liable for duty.</li> </ul>	3. The Act grants powers to officers to <b>intercept</b> (interrupt in progress), <b>open</b> , or <b>detain</b> (to hold) <b>articles</b> transmitted through the post on specific grounds. <ul style="list-style-type: none"> <li>• These grounds encompass the <b>security of the State, friendly relations with foreign states, public order, emergency, public safety</b>, etc.</li> <li>• Post officers can hand over items to customs authorities if suspected of containing prohibited items or are liable to duty.</li> <li>• <b>Director General of Postal Services</b> will be appointed to head India Post.</li> </ul>

4. No specific regulation of private courier services.	4. The latest Act regulates private courier services, making them follow the rules laid out in the new law.
5. Exempts the post office and officials from liability, except as prescribed by rules.	5. The Post Office and its officers are exempt from liability for <b>losses, mis-delivery, delay, or damage</b> during services, except as prescribed (mentioned in the Act).
6. No specific provision for recovering unpaid charges.	6. <b>Penalties and offenses under the 1898 Act</b> , such as misconduct and fraud by post office officials, have been removed. 7. If someone doesn't pay for a service from the Post Office, the unpaid amount can be collected like overdue land revenue.

## 11. SATHEE: FREE COACHING PLATFORM FOR NEET, JEE, UPSC ASPIRANTS

In December 2023, the Department of Higher Education, Ministry of Education, with IIT Kanpur, introduced the **SATHEE (Self-Assessment, Test and Help for Entrance Examination) portal**.

### Objective:

1. To provide high-quality education to students getting ready for challenging competitive exams.
2. Exams such as JEE, NEET, UPSC and various other State level Engineering exams would be covered.

### About SATHEE Portal

1. Open learning platform available to students at **no cost**.
2. Indigenous **AI Program - Prutor**, developed by IIT-Kanpur.
3. Course is **curated by IIT toppers**, academicians and subject experts.
4. **45 days crash course** is available in 5 languages including English.
5. In line with **National Education Policy (NEP) and Sustainable Development Goal 4** (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.)

### Features:

1. **Language support for regional language** students. The feature of the AI-based translation tool supports 22 Indian languages.
2. **Live and recorded lectures** in 5 languages (English, Hindi, Odia, Telugu, Bengali). Video solutions are available in regional languages.
3. **Workshops and seminars** to create awareness.
4. **Preparation material** for JEE, NEET, etc.
5. **Mock tests** on every weekend.
6. **SATHEE Mitras (friends)** are there in rural areas to increase education reach to those areas.

7. **SATHEE for Schools** blends NCERT studies with JEE learning standards in its curriculum. This helps teachers find content that supports students in excelling in both board exams and JEE preparation simultaneously. Parent Reports are also available.

### Benefits of e-Education

1. **Cost-Effective:** Reduces costs of traditional classrooms, physical materials and transportation costs.
2. **Rich Multimedia Content:** Includes multimedia elements for engaging and effective learning.
3. **Self-Paced Learning:** allows students to learn at their own time and space.
4. **Bridge education gap:** helps students who can't afford coaching.
5. **Understanding concepts:** allows students to learn from the best faculty for free.
6. **24/7 accessibility:** students can access materials anytime, anywhere. This increases education reach to rural areas.

### Some Digital e-learning initiatives in India

1. **Digital India Campaign:** promoting the use of technology in education.
2. **SWAYAM Platform:** SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) offers free online courses from school to university levels.
3. **National Digital Library (NDL):** provides a digital storage of educational resources, including textbooks, articles, and videos.
4. **DIKSHA Platform:** national platform for teachers that offers digital content for in-class teaching and self-learning.
5. **e-Pathshala:** An initiative providing e-books and educational resources for school students.
6. **NPTTEL:** National Programme on Technology Enhanced Learning offers online courses in engineering, science, and humanities.

7. **Virtual Labs:** Virtual Labs facilitate online practical experiments in various science and engineering disciplines.
8. **e-Yantra:** Encourages hands-on learning of robotics through online courses.
9. **Swayam Prabha:** group of DTH channels for broadcasting educational content for school and university students.
10. **AICTE Training and Learning (ATAL) Academy:** offers online faculty development programs for technical institutes across India.

## 12. FAST TRACK SPECIAL COURTS SCHEME

Recently, Union Cabinet has approved continuation of Fast Track Special Courts (FTSCs) Scheme for 3 more years until March 31, 2026.

### What are Fast Track special courts?

1. **FTSCs are specialized courts** established in India with the primary aim of **expediting (increasing the speed) the trial process** for cases particularly related to sexual offenses, like those involving rape and violations under the Protection of Children from Sexual Offences Act (**POCSO Act**).
2. The Central Government enacted the **Criminal Law (Amendment) Act in 2018**, which introduced strict punishments, including the death penalty for rape offenders.
3. **Subsequently, the FTSCs were set up** to ensure the swift dispensation of justice for such cases.

### About Fast Track Special Courts Scheme:

1. It was **launched in 2019 as a Centrally Sponsored Scheme** (burden of expenditure shared between centre and state). It is **implemented by Department of Justice, Ministry of Law & Justice**
2. The Central Share of the scheme is funded from **Nirbhaya Fund**, aimed at enhancing the safety and security for women in country.
3. **Current Status: 761 FTSCs including 414 exclusive POCSO Courts are operationalised** in 30 States and Union Territories.
4. FTSCs are **linked to National Judicial Data Grid**.
  - i. National Judicial Data Grid (NJDG) is a **database of orders, judgments and case details** of 18,735 **District & Subordinate Courts and High Courts**, created as an online platform under the **eCourts Project**.

- ii. Data is **updated on a near real-time basis** by the connected District and Taluka courts.

### Benefits of Fast track Special Courts

1. It has helped to **lessen the burden of cases in the higher Judiciary**.
2. **Women Empowerment and Justice** - Plays important role in ending sexual and gender-based violence
3. **Addressing the pendency** of cases under POSCO Act.
4. Providing **swift access to justice** through expedited trials.

### Challenges with Fast Track Special Courts

1. **Insufficient Infrastructure and Low Disposal Rate:** E.g. target of clearing around 165 POCSO cases per year per court, **currently clearing only 28 cases on average annually**.
2. **long pending:** E.g. Over **2.43 lakh** POCSO cases pending trial in FTSCs as of 31 January 2023.
3. **Low conviction Rate:** i.e. around **4% of total trials**.
4. **Vacancies and Lack of Training:** E.g. As of 2022, lower courts across India had a vacancy rate of 23%. Also, Regular judges from normal courts are often deputed to work in FTSCs.

### Solution :

The purpose of Fast Track Courts is to expedite justice and complete trials in a time bound manner .

To achieve this , a **two-pronged approach is required :**

- i. **Improve the human capacity of these courts** with dedicated judges and competent staff
- ii. **Process engineering** - time-consuming processes must be reengineered and there should be realistic assessment of the time taken for each hearing , a proper time table which offers ample time to every case.

## 13. EXPULSION OF LAWMAKERS IN INDIA

Recently Mahua Moitra, a Member of Parliament, has been expelled by Lok Sabha on the charge of accepting gifts and illegal gratification.

### What is expulsion?

1. Expulsion means removing someone from a group or organization because they did something wrong or against the rules.
2. The difference between expulsion and disqualification is that under disqualification, a member of the parliament cannot contest the elections further while under expulsion he/she can.

**What has happened in the recent case?**

1. Lok Sabha had constituted an **Ethicscommittee** to look into the matters of corruption and breach of privilege. (Breach of privilege involves actions that disrespect or violate the rights and privileges of the Indian Parliament, its committees, or its members.)
2. The Ethics committee found Mahua Moitra guilty of “ethical misconduct”.
3. The house accepted the findings of the committee and passed a motion regarding the expulsion of the member.

**How Expulsion of Lawmakers Happens in India?**

The expulsion of any lawmakers in India can take in 2 ways:

1. On a Constitutional basis
2. On Legal Basis

**What is the Constitutional basis for expulsion?**

1. **For Violation of Parliamentary privileges:**
  - a. Parliamentary privilege is like a set of special rights and protections given to the **Parliament** and its

- members.** It helps them do their job without facing unnecessary challenges or legal issues.
- b. If a member of Parliament thinks someone has done something that goes against the privileges of the Parliament, they can bring it up in the form of a motion.
- c. These privileges are provided under Article 105 for Parliament and MPs. Similarly, Article 194 provides privileges for the State legislatures and MLAs.

**2. Contempt of House:**

- a. It refers to acts which disrupt the functioning of the house. It obstructs the member in the discharge of his duties.
- b. **Article 122** of the Indian Constitution says that only Parliament can decide if someone is in contempt. Courts usually can't interfere. But in the **Raja Rampal case** in 2007, the court stepped in. They upheld the expulsion but said if something very wrong happened, they could check it.

**What is the Legal Basis for Suspension?**

<b>Rules of Suspension in Lok Sabha</b>	<b>Rule 373</b>	If the Speaker thinks a Member is causing a disturbance, they can tell that Member to leave right away.
	<b>Rule 374</b>	The Speaker can suspend a Member who doesn't follow the rules, disrespects the authority of the Chair, or deliberately stops the House's work.
	<b>Rule 374 A</b>	The Speaker can suspend a Member if they come to the central area of the House (well) or violate the House's rules, by naming. It means there is no need for any motion to suspend that MP (Such a rule is not there in the case of Rajya Sabha)
<b>Rules for Suspension in Rajya Sabha</b>	<b>Rule 255</b>	The Chairman of Rajya Sabha can directly tell a Member, whose behaviour is very disruptive, to leave immediately.
	<b>Rule 256</b>	The Chairman can suspend a Member who doesn't respect the authority of the Chair, breaks the rules, and purposely disrupts the Council's work.

**14. NATIONAL CADET CORPS (NCC)**

The National Cadet Corps (NCC) has recently celebrated its 75th Anniversary on November 26, 2023.

**What is National Cadet Corps (NCC)?**

**A. Formation:**

1. The NCC was created in 1948 based on the suggestions of the **H. N. Kunzru Committee** (1946).
2. It operates under the National Cadet Corps Act XXXI of 1948.
3. It's a voluntary service offered by students.

**B. Organization:**

1. NCC is the largest uniformed youth organization in the world.
2. It comprises a Tri-Services Organization including Army, the Navy, and the Air Force.

3. It enrolls cadets at high school and college level and provides them basic military training.
4. It is under the administrative control of Ministry of Defence and headed by
5. Director General who is a 3-star ranked military officer.
6. Lieutenant General Gurbirpal Singh, AVSM, VSM is current Director General of NCC.

**C. Aim of NCC:**

1. To develop character, leadership, discipline, a secular outlook, the spirit of adventure and ideals of selfless service amongst young citizens.
2. To create a group of organized, trained and motivated youth who can serve the Nation in various careers.
3. To motivate youth to join the armed forces.

**What has been the Contribution of NCC?****A. During Covid 19 pandemic:**

1. NCC helped civilian authorities in the country to fight against the COVID-19 pandemic under 'Exercise NCC Yogdan'.
2. Around 60,000 NCC cadets were deployed for voluntary relief work in coordination with district and state authorities across the country.

**B. In Social work:**

1. NCC celebrated a special **Swachhta Diwas** as part of the Swachhta Week under **Swachh Bharat Mission**.
2. They carried out **cleanliness drives** in the school and colleges, historical monuments, hospitals and statues of national leaders.

**C. During War:**

1. During the **Indo China War (1962)**, **Indo-Pak wars (1965 and 1971)** and **Kargil War (1999)**, NCC cadets provided significant help.
2. They helped in defence by doing things like rescuing people, giving first aid, evacuating those hurt, fighting fires, clearing debris, controlling traffic, and maintaining important services like communication.

**D. In Rescue Operation:**

1. NCC cadets perform a crucial role in providing relief and assistance during disasters like floods, earthquakes, cyclones, man-made disasters etc.

**Difference between the National Cadet Corps (NCC) and the National Service Scheme (NSS)**

	<b>National Cadet Corps (NCC)</b>	<b>National Service Scheme (NSS)</b>
<b>Objective</b>	Develop character, discipline, leadership, and a spirit of adventure	Promote community service and social development
<b>Primary Focus</b>	Military training and activities.	Voluntary service
<b>Activities</b>	Drill, shooting, camping, trekking, and military-related training.	Blood donation camps, cleanliness drives, environmental initiatives, health and education awareness.
<b>Uniform</b>	Military-style uniforms	Simple khaki uniforms
<b>Ministry</b>	Ministry of Defence	Ministry of Youth Affairs & Sports
<b>Motto</b>	"Unity and Discipline."	"Not Me, But You."
<b>Establishment</b>	1948	1969
<b>Who can join?</b>	<ol style="list-style-type: none"> <li>1. Junior Division: Students from schools (of 13 Years or more of age)</li> <li>2. Senior Division: Students from Colleges and XI and XII classes</li> </ol>	<ol style="list-style-type: none"> <li>1. 11th &amp; 12th Class students</li> <li>2. Students of Technical Institution, Graduate &amp; Post Graduate at colleges and University level of India</li> </ol>

**15. GRAM MANCHITRA APP AND mACTIONSOFT TECH SOLUTION****Gram Manchitra App**

1. Launched by Ministry of Panchayati Raj (MOPR) in 2019 .
2. It is Geographical Information system (GIS) app developed by National Informatics Centre .
3. It helps to perform spatial planning at Gram Panchayat level with use of geo-spatial technology to foster a planned approach to rural development.

**mActionSoft :**

1. mActionSoft is a mobile-based solution that helps in capturing geo-tagged photos with GPS coordinates.
2. Geo-Tagging: Panchayats will geotag assets with photographs to ensure transparency and accountability.
3. The assets geo-tagged using mActionSoft will seamlessly integrate with Gram Manchitra

to visualise developmental works of Gram Panchayats.

**What is geographical Information system (GIS)?**

1. It is a technology that allows Data Visualisation, interpretation and management by linking it to locations on the Earth's surface.
2. It combines various layers of information such as maps, satellite imagery, and data tables to create interactive maps and models.

**Related Government Initiative - SWAMITVA Scheme**

1. Launched in 2020, SVAMITVA (Survey of Villages and Mapping with Improved Technology in Village Areas) scheme is a collaborative effort of the Ministry of Panchayati Raj, State Panchayati Raj Departments, State Revenue Departments and Survey of India.
2. It is a scheme for mapping the land parcels in rural inhabited areas using drone technology.



## B. INTERNATIONAL RELATIONS

### 1. MANY INDIANS IN FOREIGN JAILS

“A large number of Indians are jailed in foreign countries, especially in West Asia. The Indian government steps in to offer legal help, ensure fair treatment, and works on bringing them back home.”

#### Indians in Jails Outside India

- 1. Numbers:** Around 9,500 Indians are in prisons in 89 countries.
- 2. A Recent Case:** The case of former 8 Indian Navy officers in Qatar has made more people aware of this issue, following timeline:

#### Qatar Case

- In **August 2022**, 8 ex-Indian Navy people were arrested by Qatar. They were arrested for being involved in a suspected spying case.
- In **March 2023**, Trials begins in the case.
- In **October 2023**, the death sentence was handed to all 8 men by the Qatar Court.
- In **December 2023** the Qatar Court has changed the punishment for 8 ex-Indian Navy people from death.

#### Reasons for Arrest of Indians Abroad

##### Accidental Maritime Boundary Crossing

- 1. Fishermen:** Often get arrested for unintentionally entering foreign waters.

##### Violation of Local Laws

- 1. Theft and Fraud:** Arrests for stealing or cheating.
- 2. Drug-Related Offenses:** Caught with illegal stuff.
- 3. Serious Crimes:** Involvement in acts like murder.

##### Immigration Issues

- 1. Illegal Entry or Overstay:** Staying in a country without proper visas or permissions.

##### Other Offenses

- 1. Human Trafficking:** Involvement in illegal movement of people.
- 2. Fraud:** Creating or using fake documents.

##### Most Indians in Jails in West Asia

- 1. Top Countries:** Saudi Arabia, UAE, Qatar, Kuwait, and Bahrain have a lot of Indian prisoners.
- 2. Other Countries:** Nepal, Malaysia, Pakistan, the UK, China, and the USA also have many Indian prisoners.

Region	Indian prisoners
<b>1.Middle east nations.</b>	More than 62% are lodged in the Middle East. Maximum in Saudi Arabia.
<b>2.Southeast asian nations</b>	Around 23%. Maximum are in Nepal followed by Malaysia and Pakistan.
<b>3.Europe</b>	Majority jailed in the United Kingdom.

#### What the Indian Government Does to Help?

- 1. Quick Action:** Indian embassies and consulates quickly contact local authorities when an Indian is arrested.
- 2. Legal Help:** They arrange for lawyers to help these Indians, especially if they can't afford one.
- 3. Working for Their Welfare:** They try to make sure Indians get fair treatment and help them come back to India after they are released.
- 4. Transfer Agreements:** India has deals with 35 countries to bring prisoners back to serve their remaining jail time in India.

#### Extra Support for Prisoners

- 1. Visits and Advice:** Embassy staff regularly visit Indian prisoners and give them advice.
- 2. Protecting from Cheats:** They help prisoners and their families not get cheated by people offering fake legal help.
- 3. Travel Documents and Tickets:** They provide documents and sometimes tickets for Indians who have finished their jail time to return to India.

In conclusion, the arrest of Indians abroad is a complex issue, often resulting from accidental maritime boundary crossings, violations of local laws, immigration irregularities, and other serious offenses. It highlights the need for increased awareness about international regulations and the proactive role of the Indian government in providing necessary legal and consular support to protect the rights and welfare of its citizens overseas.

## 2. 5 NEW MEMBERS IN BRICS

The BRICS regional grouping has decided to add 5 new full members.

### About BRICS Expansion

1. In August, 2023 during the **15th BRICS Summit** held in Johannesburg the existing BRICS grouping had taken a significant step by inviting **6 new countries to join** from January 1, 2024.
  - a. These new invitees are **Iran, Saudi Arabia, and the United Arab Emirates (UAE) from West Asia; Egypt and Ethiopia from Africa; and Argentina from Latin America.**
  - b. Initially Argentina was ready to join BRICS group. However, the new Argentinian President, announced that **Argentina will not be a part of BRICS anymore.** Now the total new members in BRICS remains only 5, not 6.

**About BRICS**

1. BRICS is an acronym for the grouping of the world's leading emerging economies, namely **Brazil, Russia, India, China, and South Africa.**

2. The grouping was formalized during the first meeting of BRIC Foreign Ministers' in 2006.
  - South Africa joined in December 2010 (BRICS).

### Reasons for Expansion

1. To counter China's strategic move for global influence.
2. Common goal and wider engagement with other nations.
3. Anti-western sentiment and Global South unity.

### Implications of Expanding BRICS Membership

1. **Economic diversity:** enhancing the group's overall economic strength and resilience.
2. **Global influence:** more influential globally, especially in trade, investment, and international affairs.
3. **Regional representation:** better representation of the interests and perspectives of diverse countries.
4. **Enhanced cooperation:** more cooperation in technology, innovation, and sustainable development, improving economic and social progress for the group.
5. **New opportunities:** collaboration in areas like infrastructure, energy, and culture, benefiting all the countries involved.

### “Analyzing and Addressing Key Challenges among BRICS Nations: Economic, Political, and Security Perspectives”

Challenges	Description	Solutions
<b>1. Economic Disparities</b>	Internal economic disparities, income inequality, and development gaps among BRICS nations.	Implement progressive taxation policies, promote inclusive economic development strategies and enhance social welfare programs and education in BRICS nations
<b>2. Political Divergence</b>	Differing political ideologies and priorities among BRICS nations challenge joint initiatives.	Emphasis on diplomatic and cultural exchanges to promote understanding among BRICS nations.
<b>3. Infrastructure Gaps</b>	Insufficient infrastructure in some BRICS nations.	Invest in infrastructure development projects, focusing on key sectors like transportation, energy, and telecommunications among BRICS nations
<b>4. Security Concerns</b>	Security issues like terrorism and internal security concerns among BRICS nations.	Strengthen regional security cooperation via joint initiatives and intelligence sharing. Promote dialogue and conflict resolution mechanisms among BRICS nations.

### Contribution of BRICS

1. **Economic Powerhouse:** BRICS nations represent 40% of the world population and 25% of global GDP, playing a significant role in the World Economy.
2. **Trade Growth:** trade of more than US \$600 billion in 2022.
3. **Geopolitical Influence:** BRICS nations challenge

traditional power structures and advocate a multi-polar world.

4. **Infrastructure Development:** The New Development Bank, a joint effort by BRICS countries, funds vital infrastructure projects, promoting sustainable development.
5. **Cultural Diplomacy:** Cultural exchanges and connections between people strengthen understanding among BRICS nations.
6. **Global Governance Reform:** BRICS nations push for changes in global governance institutions like the UN, WTO etc.

### 3. RED SEA ATTACK AND PANAMA CANAL DROUGHT

Concerns about disruptions to global commerce have been highlighted by recent attacks on ships in the Red Sea trade route and the persistent drought issue at the Panama Canal.

**More on News**

1. The number of Very Large Gas Carriers transiting the Panama Canal is projected to almost halve by February 2024.
2. Trade is affected along two crucial choke points i.e. the Suez Canal and the Panama Canal.

**Key Issues in the Red Sea and Panama Canal**

Issues in Red Sea	Issues in Panama Canal
1. Chemical tanker MV Chem Pluto struck by a drone attack, around 200 nautical miles off Gujarat’s coast.	1. Shipping via the Panama Canal has dropped by over 50% due to drought conditions at the 51-mile stretch.
2. The Red Sea attacks are carried out by Yemen-based Houthi rebels, who have been in a civil war with the Yemeni government for about a decade.	2. Due to the shortage of water, ships moving from Asia to the US are being forced to use the Suez Canal, which takes six more days compared to the Panama Canal.
3. The disruption at the Red Searoute is estimated to push the prices of Indian agricultural products by 10 to 20 percent, as shipments would be routed through the Cape of Good Hope.	3. Panama is facing its driest rainy season in decades, raising fears of prolonged canal bottle-necks.

Significance of Maritime Transport in Global Trade	
1. <b>Huge Volume and Value Carrier</b>	a. Maritime transport accounts to about 80% of global trade by volume and over 70% by value, far surpassing other modes of transportation as per the United Nations Conference on Trade and Development.
2. <b>Energy Transportation</b>	a. The majority of the world’s energy resources, such as oil and natural gas, are transported by sea. b. Tankers carry these resources from production areas to consuming regions, playing a critical role in meeting global energy demands.

**Impacts of recent threats to maritime routes**

1. **Geopolitical tension:** Houthi groups receive support from Iran (Russia is perceived as Iran’s ally) and oppose Western nations and Israel. Their attacks can lead to war.
2. **Inflation:** Higher charges (surcharges, higher insurance etc.) and cost of longer travel time (more fuel and crew time) will increase shipping

costs and lead to inflationary pressures on the world economy.

- The disruption at the Red Sea route, for instance, is estimated to push the prices of Indian agricultural products by 10-20% due to shipments being re-routed through Cape of Good Hope.
3. **Disruption in global supply chain:** Over 80% of global goods trade is carried by sea, with the share

of trade via sea is much higher for developing countries such as India.

**4. Environmental impact:** Longer routes around South America and Africa mean an increase of CO2 emissions for each ship by 20% to 35%.

**Impact on India**

**1. Impact on exports:** European Union is 2nd largest destination for Indian exports and the Suez Canal is a key route for export shipping.

- E.g., India’s plan to export 500,000 tonnes of new season basmati rice to Europe and the Middle East can be at risk.
- 2. Risk to Energy Security:** The Red Sea is a key route for oil and gas shipments.
  - About 65% of India’s crude oil imports in FY2023, likely passed through the Suez Canal.
- 3. Diplomatic Ties:** India maintains positive relations with both Iran and Israel, making it challenging to assess the overall diplomatic landscape.

**What Measures India can Adopt to Reduce Sensitivity to These Issues?**

<b>1. Deploy Additional Warships</b>	<ul style="list-style-type: none"> <li>• INS Kochi, INS Mormugao, INS Kolkata and INS Chennai, in addition to a Talwar Class frigate – have been deployed at the Arabian Sea off the Gulf of Aden.</li> </ul>
<b>2. Joint Maritime Security Initiative</b>	<ul style="list-style-type: none"> <li>• Propose a collaborative security framework with key Red Sea stakeholders (Egypt, Saudi Arabia, UAE, Yemen) involving intelligence sharing, coordinated patrols, and joint exercises.</li> </ul>
<b>3. Deploy Advanced Surveillance Systems</b>	<ul style="list-style-type: none"> <li>• Install integrated radar and drone surveillance systems along India’s western coastline to enhance early threat detection and response capabilities.</li> </ul>
<b>4. Negotiate Preferential Access</b>	<ul style="list-style-type: none"> <li>• Engage with Panama Canal authorities to explore preferential passage for Indian vessels or potential toll discounts for specific routes.</li> </ul>

**About Red Sea:**

1. It is bordered by the Sinai Peninsula, the Gulf of Aqaba, and the Gulf of Suez (which leads to the Suez Canal) in the north, and the Gulf of Aden in the south.
2. It is connected to:
  - a. The Mediterranean Sea, through the Suez Canal, in the north,
  - b. Israel and Jordan, through the Gulf of Aqaba (with Egypt, Israel, Jordan & Saudi Arabia as bordering nations)
  - c. The Gulf of Aden and the Arabian Sea, through the Bab-el-Mandeb Strait (between Yemen on the Arabian Peninsula and Djibouti and Eritrea in the Horn of Africa).



**About Panama Canal:**

1. It is a constructed waterway that connects the Atlantic and Pacific oceans across the Isthmus of Panama.
2. It is one of the two most strategic artificial waterways in the world, the other being the Suez Canal.
3. It is approximately 80 kilometers long.
4. The canal was built by the United States between 1904 and 1914, and it was officially opened on August 15, 1914.
5. It is owned and administered by the Republic of Panama since the oversight of the Canal was transferred from the United States to Panama in 1999.



## 4. INDIA-OMAN VISION: IMPROVING TIES ACROSS 10 MAJOR AREAS

In December 16, 2023 India and Oman signed a plan for working together in **10 important areas**, during Oman’s Sultan Haitham bin Tarik’s **first trip to India** as the top leader of a Gulf nation.

Aspect	India-Oman Bilateral Relationship
<b>Diplomatic Relations</b>	<ol style="list-style-type: none"> <li>1. Diplomatic/Political ties established in 1955</li> <li>2. Strategic partnership made in 2008.</li> </ol>
<b>Economic &amp; Commercial Relations</b>	<ol style="list-style-type: none"> <li>1. Economic cooperation managed through the Indo-Oman Joint Commission Meeting.</li> <li>2. Bilateral trade was approximately 5 billion dollars in 2020-21.</li> </ol>
<b>Funding</b>	<ol style="list-style-type: none"> <li>1. Oman-India Joint Investment Fund (OIJIF) is a 50-50 partnership.</li> <li>2. Indian firms invest in various sectors like iron and steel, cement, fertilizers, textiles, etc.</li> </ol>
<b>Defence Cooperation</b>	<ol style="list-style-type: none"> <li>1. Strong defense partnership; joint exercises with all three forces.</li> <li>2. The Indian Navy is allowed to park its ships or boats in Oman when needed (Berthing rights).</li> <li>3. Joint military exercises, like Al Najah IV in 2022.</li> </ol>

- 1. Clean Energy Focus:** Extra attention to clean energy, especially **“green hydrogen.”**(Green hydrogen is a type of hydrogen gas that is produced using renewable energy sources, such as wind or solar power.)
- 2. Investment Fund:** This special fund is called the **Oman-India investment fund**. Both nations will put together 300 million dollars to help important parts of the economy.
- 3. Trade and Digital Payments:** Oman might use India’s digital payment system and also trade using Indian Rupee.
- 4. Economic Partnership Agreement:** This **Comprehensive Economic Partnership Agreement (CEPA)** will help them work together more closely on finance matters. It involves reducing rules that make it difficult for businesses from one country to operate in the other country.

### Conclusion

This plan fits with **India’s “Amrit Kaal”** and **Oman’s “Vision 2040.”** Both nations spoke against terrorism and agreed to work together against it. They highlighted their shared sea history and closeness as reasons to work together. Overall, this INDIA-OMAN plan starts a new chapter of better teamwork and stronger ties, with real benefits for people in both nations.

### Key Highlights

Joint vision in **10 different areas**. These include working together on the ocean (marine cooperation), using digital payments, exploring space, using clean energy, promoting tourism, agriculture, ensuring there is enough food (food security), and cricket.

## 5. STATE VISIT OF PRESIDENT OF KENYA

In December 2023, President of Kenya **William Samoei Ruto** paid State visit to India to boost bilateral relationship. a \$250 million Line of Credit was given to Kenya to improve agriculture.

### What is Line of Credit (LoC)?

A line of credit is like having a certain amount of money that you can borrow when you need it. Instead of getting a lump sum of money all at once, you can borrow smaller amounts up to a certain limit whenever you want. You only have to pay back the money you borrow, and you can use it for various things.

### What is a State Visit?

- 1.** A state visit is a formal visit by a foreign head of state to another country, usually at the invitation of the host country’s head of state.
- 2.** It’s a way for nations to strengthen their diplomatic ties, discuss important matters, and build relationships.
- 3.** State visits involve formal ceremonies, meetings with officials, and cultural events.

### Important Highlights of the Visit

- 1.** India announced a US \$250 million line of credit (LoC) to Kenya for modernisation of the agricultural sector.

2. Both countries signed **5 agreements** and made a plan to work together in the Indian Ocean. These include **MoU (memorandum of understanding)**: -
- On sharing successful solutions for digital transformation,
  - Between Indira Gandhi National Open University and the Open University of Kenya,
  - Agreement on culture exchanges for the period 2023-27,

- Bureau of Indian Standards and Kenya Bureau of Standards, and
  - Co-operation in sports
3. Leaders want to make **defense ties stronger**. They agreed to increase training exchanges, including sending experts from India to help in Kenyan defense.
4. PM Modi said they will do **military exercises together** and work on projects to **fight terrorism**.
5. Kenya has decided to join the **Global Biofuels Alliance and the International Solar Alliance**.

**How has been the India-Kenya Relationship so far?**

Dimensions	India-Kenya Relations
<b>Historical Ties</b>	<ol style="list-style-type: none"> <li>India and Kenya have been friends for a long time.</li> <li>The foundations of these ties were laid during the struggle for independence, as both countries sought to free themselves from colonial rule.</li> </ol>
<b>Diplomatic Relations</b>	<ol style="list-style-type: none"> <li>Diplomatic relations between India and Kenya were established shortly after Kenya gained independence in 1963.</li> </ol>
<b>Economic Cooperation</b>	<ol style="list-style-type: none"> <li>In 1981, both countries signed a trade agreement, treating each other as Most Favoured Nations (MFN).</li> <li>The main products that Kenya <b>exports to India</b> are dried Legumes, Carbonates, and Tea.</li> <li>The main products that India <b>exports to Kenya</b> are refined Petroleum, Packaged Medicaments, and Semi-Finished Iron.</li> <li>India is the second-largest investor in Kenya.</li> <li>60 major Indian companies investing in various sectors such as manufacturing, real estate, pharmaceuticals etc.</li> </ol>
<b>Developmental Assistance</b>	<ol style="list-style-type: none"> <li>India helps Kenya through loans.</li> <li>100-million-dollar agreement for the Agricultural Mechanization Project signed in January 2017.</li> </ol>
<b>Maritime Cooperation</b>	<ol style="list-style-type: none"> <li>Both countries are members of the Indian Ocean Rim Association (IORA).</li> </ol>
<b>Indian Community in Kenya</b>	<ol style="list-style-type: none"> <li>80,000 persons of Indian origin, around 20,000 Indian citizens, contribute significantly to Kenya.</li> </ol>

**6. IRAN ANNOUNCES VISA FREE TRAVEL FOR INDIANS**

In December 2023, Iran announced that it is removing visa requirements for citizens of India as well as 32 other countries.

**Aim**

- This action intends to increase tourism by attracting more visitors from around the world to Iran.
- It also seeks to show Iran in a good light, and to clear bad misconceptions about the country.

**Why is Visa Free travel important?**

- Promotes Tourism
- Contributes to the local economy
- Cultural Exchange between people
- Business Opportunities grow
- International Relations between countries can be improved

- People who need a safe place(refugee) or medical help might be allowed without a visa.
- Makes a country more liked and influential in the world (Soft power increases)
- Encourages Investment in the country.

**Some Important Facts about Indian Visa scenario**

- India is becoming a popular source of tourists with a fast-growing market of approximately 13 million tourists in 2022.
- Several countries, including Kenya, Indonesia, Malaysia, Sri Lanka, Thailand, and Vietnam, have recently removed visa requirements for Indian citizens.
  - At present, 27 countries provide visa-free entry to the Indian citizen.
- According to **Henley Passport Index 2024**, citizens of India can enter 62 countries without the need for a visa.

- According to data provided by the Ministry of Tourism, the top five destinations for Indian citizens are the UAE, the USA, Saudi Arabia, Singapore, and Thailand.

## 7. INDIA RE-ELECTED TO IMO COUNCIL

India has been re-elected to the International Maritime Organisation (IMO) with **highest votes**, for the year 2024-25.

### What is the International Maritime Organization (IMO)?

- IMO is a **specialized agency** of the **United Nations (UN)**, established in 1948, that is responsible for improving the safety and security of international shipping. Shipping is the act of sending goods from one place to another, especially by ship.
- It plays an important role in **making rules and regulations** for shipping industries around the world.
- It includes the **IMO Council** which looks over the work of the IMO.
  - There are **40 countries** in the Council, and they get elected every two years by the Assembly.
  - These countries are split into 3 groups: Category (a), Category (b) and Category (c).
  - India has been re-elected in the Category (b).

### Role of the International Maritime Organization (IMO):

- IMO makes **fair rules** for ships around the world.
- They set rules to keep ships safe, clean, and good for the environment.
- The IMO checks and **investigates accidents** that occur in international waters.
- They make sure all ships **compete fairly** without hurting safety or the planet.
- IMO stops ships from making the sea dirty and has rules like **not using bad fuel**.
  - It has set rules that ships shouldn't use fuel with too much sulfur.
  - IMO's **MARPOL Convention** (The International Convention for the Prevention of Pollution from Ships) is a key treaty to prevent and minimize **pollution** from shipping.
  - IMO also adopted the **London Dumping Convention** and Protocol on the dumping of wastes and other matter at sea.
- IMO fights **sea robbery** and **piracy** to make maritime activities safer. For this, the IMO has adopted The International Convention for the Safety of Life (**SOLAS Convention**) in **1974**.

Challenges Faced by IMO	Solutions
Unequal say of Countries	<ol style="list-style-type: none"> <li>Reconsider the funding mechanism.</li> <li>Ensure equal representation regardless of ship size.</li> </ol>
Industry Influence	<ol style="list-style-type: none"> <li>Increase diversity in advisory groups.</li> <li>Establish guidelines.</li> <li>Promote transparency in decision-making.</li> </ol>
Lack of New Technology	<ol style="list-style-type: none"> <li>Stay updated on emerging technologies.</li> <li>Establish specialized committees for advancing technology.</li> </ol>
Political Problems	<ol style="list-style-type: none"> <li>Encourage open dialogues.</li> <li>Resolve disagreements through diplomacy.</li> <li>Build majority decisions and negotiations.</li> </ol>
Lack of Research and Development (R&D)	<ol style="list-style-type: none"> <li>Research and development needed.</li> <li>Explore various engine technologies.</li> </ol>

## 8. PRAYAS: EMPOWERING INDIAN DIASPORA

The **International Organisation for Migration (IOM)** launched a project called "PRAYAS" (Project Promoting Regular Assisted Migration for Youth and Skilled Professionals).

- ### International Organisation for Migration (IOM):
- It is a part of the United Nations system and focuses on migration and was established in 1951.
  - It aims to promote migration that is humane and well-organized for the benefit of everyone.
  - It has 175 member states, including India.
  - World Migration Report released by IOM.
  - HQ in Geneva.

**About the Project:**

1. The Project was launched in partnership with Ministry of External Affairs (MEA) for the year 2023-24.
2. Its objective is to facilitating safe, orderly, and regular migration for aspiring Indian migrant workers and students in collaboration with MEA, NITI Aayog, and State Governments.

**About Indian Diaspora**

1. Indian Diaspora refers to people who either come from India or are citizens of India but live

- in other countries, either for a short time or permanently.
2. It includes Non-Resident Indians (NRIs), Persons of Indian Origin (PIOs), or Overseas Citizens of India (OCIs).
  3. India has a diaspora of **32 million people**, with the largest communities residing in the UAE, USA, and Saudi Arabia.
    - Also, India is the world’s largest recipient of remittances.

Problems Faced by Indian Diaspora foreign	Solutions
1. Some Indians working abroad may not have a stable income, especially if their jobs are temporary or part-time.	1. Make sure our people working abroad get clear and steady pay. Ask other countries to create more long-term jobs for them.
2. Many find themselves in jobs without benefits like health insurance or retirement plans, making life financially risky.	2. Discuss with other countries to make better job rules, so our workers, even in informal jobs, get things like health insurance and retirement plans.
3. Poor working conditions	3. Push for improved working conditions and rules.
4. Absence of grievance redressal	4. Support the establishment of grievance redressal mechanisms.
5. Biased Judicial systems	5. Work together with the countries hosting the diaspora to make sure the legal processes are clear and transparent.

**Major Indian Government’s Initiatives for the Indian Diaspora:**

1. **Indian Community Welfare Fund (ICWF):** support to Indian nationals facing crises in foreign.
2. **Madad Portal:**It allows migrants to lodge complaints online.
3. **SWADES (Skilled Workers Arrival Database for Employment Support):** to figure out what skills people have when they come back to India through the Vande Bharat Mission.
4. **Vande Bharat Mission:** helping diaspora to come back during COVID.
5. **Global Pravasi Rishta Portal, Vaibhav Summit, Know India Programme, Tracing Roots, and Pravasi Teerth Darshan Yojana:** to enhance engagement with the diaspora.

2. Theme for 2023 is “**Freedom, Equality, and Justice for All.**”
  - UDHR was approved by the U.N. General Assembly (UNGA) on December 10, 1948.

**Key features of UDHR**

1. Says that everyone deserves **respect and fairness** for a peaceful world.
2. Believes **human rights are for everyone**, no matter where they live or who they are.
3. The Universal Declaration of Human Rights (UDHR) is important and is part of the International Bill of Human Rights like International Covenant on Civil and Political Rights (**ICCPR**), International Covenant on Economic, Social and Cultural Rights (**ICESCR**).
4. It lists **30 important rights**, which includes civil and political rights, economic and social rights etc.
5. It is **not legally binding** meaning it is just a guideline and people are not legally required to follow it.

**9.75 YEARS OF UNIVERSAL DECLARATION OF HUMAN RIGHTS**

1. 10 December 2023 marks the 75th anniversary of the Universal Declaration of Human Rights (UDHR).

**What is Human Rights?**

1. Everyone, no matter their race, sex, nationality, or other characteristics, has basic rights. These rights include things like the right to life, freedom from slavery and torture, freedom of speech, the right to work and go to school, and more.
2. **Article 1** of the Universal Declaration of Human Rights says everyone is born free and equal in dignity and rights.
3. **Article 2** states that everyone should have all these rights without being treated differently based on race, color, sex, language, religion, political views, or other factors.

**Some examples of Human Right Principles in the Indian Constitution:**

1. **Fundamental Rights**, found in Part III (**Article 14 to 32**), ensure equality for all citizens.
2. Articles 14 to 18 guarantee the right to equality.
3. Article 19 protects freedom of speech, while **Article 21** ensures the right to life and liberty.
4. If human rights are violated, citizens can seek help from the **Supreme Court (Article 32)** or High Courts (Article 226).
5. Directive Principles of State Policy (**DPSP**), in Articles 36 to 51, guide the government on principles for a just society.

**10. GLOBAL NUCLEAR ORDER UNDER TENSION**

The Global Nuclear Order (GNO), made during the **tense times of the Cold War**, is now facing problems because the world's political scene is changing, and **new countries** are **getting nuclear power**.

**Historical Background of GNO:**

1. **Beginning:** GNO started after **World War II**. It was mostly shaped by the tensions between the **United States and the Soviet Union (U.S.S.R.)**
2. **Cuban Missile Crisis:** This was a key event in 1962 when the world was very close to a nuclear war. This crisis showed the importance of having ways to stop nuclear conflicts.
3. **Major Developments:**
  - a. A direct communication line ('**hotline**') was **set up in 1963** between the U.S. and U.S.S.R.
  - b. Talks began to control the growth of nuclear arms.

**Treaty on Stopping Nuclear Weapons Spread (NPT):**

1. **Start:** Created in 1968, the aim was to stop more countries from getting nuclear weapons.
2. **Growth:** It started with fewer than 60 countries and now has 191, showing that many countries agree to stop the spread of nuclear weapons.

3. **Success:** Despite worries that many countries would get nuclear weapons, **only four more countries (India, Israel, North Korea, and Pakistan) did after 1968.**

**Group for Controlling Nuclear Technology (NSG):**

1. **Formation:** Started after India's nuclear test in 1974, this group's purpose was to control the export of nuclear technology.
2. **Members:** It began with 7 countries and has grown to 48. They all agree to the same rules for exporting nuclear technology.

**Changes After the Cold War:**

1. **Less Nuclear Weapons:** The U.S. and Russian nuclear Reserves were reduced a lot after the Cold War.
2. **Treaty on Arms Control:** These helped keep a balance of nuclear power between the U.S. and Russia.

**New Challenges in Global Politics:**

1. **From Two Power to Many Power World:** China becoming a global power has added new elements to the nuclear order.
2. **Issues with Treaties:** The U.S. left important treaties like the **ABM** (Anti-Ballistic Missile) and **INF** (Intermediate Range Nuclear Forces), blaming Russian actions and new safety needs.
3. **Uncertain Future of New START Treaty:** This important treaty that helps control weapons is uncertain because of the current world politics. Russia has stopped following the New START Treaty, making the situation for legally controlling nuclear weapons worse. This explains the basic ideas of the treaty and the big problems it's facing, even before it ends in 2026.

**Nuclear Situations in Asia:**

1. **South Korea, Japan, and Taiwan:** These countries are rethinking their nuclear plans because of U.S. policy changes and China's rise.
2. **Talks on Nuclear Self-Defense:** There is a growing discussion about whether these countries should have their own nuclear defense abilities.

**What Might Happen Next:**

1. **Changes in the U.S. Policies:** The U.S. might become more flexible about its allies having their own nuclear powers.
2. **A Changing Nuclear World:** The usual GNO rules are being pushed to adapt to new technology and new nuclear countries.

**Summary:**

The GNO, which has been a big part of world safety since the Cold War, is now facing big tests. Updating and rethinking international deals and rules are important to deal with these challenges and keep the world safe from nuclear dangers.



## C. SECURITY

### 1. Pegasus Spyware Found on Phones of Indian Reporters

Amnesty International and The Washington Post found out that Pegasus spyware was on the iPhones of two Indian journalists.

#### What is Pegasus:

1. **Pegasus** is a powerful **spying tool** made by **Israel's NSO Group**. It can secretly get information from smartphones.
2. In **2021**, it was revealed that Pegasus was used in India on many phone numbers, including those of reporters, activists, and politicians. This led to a big debate and claims that the government was spying on people.
3. The Indian government said they **didn't use Pegasus**, but they didn't explain if they bought or used it.

#### Recent Developments:

1. In **October 2023**, Apple **warned** some **iPhone users**, including journalists, about possible attacks from government-backed attackers.
2. After this, **2 well-known Indian journalists** and another person gave their phones to Amnesty International for checks.
3. Amnesty **found** signs of **Pegasus on both phones**, showing they were spied on. The spyware probably got in through a no-click attack in iMessage.

#### Why it Matters:

1. This finding brings back worries about the **government watching reporters** and limiting **press freedom** in India.
2. It makes people wonder if the government is still using Pegasus after the earlier problems.
3. The reporters who were spied on were looking into important topics like government actions and corruption. This adds to fears that they might be trying to scare reporters.

#### Possible Outcomes:

1. The Indian government is being asked to be clear about their use of Pegasus and to give more details.

2. Groups working for society's good and journalists might be more at risk for being watched.

#### Other cyber security issues :

1. **Smishing**: This is a type of trick where someone tries to get your personal information, like passwords or credit card numbers, through text messages or SMS. They might pretend to be a bank or a company and ask you for your details.
2. **Ransomware**: This is a harmful software that locks your computer or files and asks for money to unlock them. It's like someone taking your data hostage and asking for a ransom.
3. **Phishing**: This is similar to smishing, but it happens through emails. Someone might send you an email that looks real, like from a bank or a service you use, and ask you for your personal information.
4. **Spyware**: This is software that secretly watches what you do on your computer. It can collect information about your internet habits, personal data, and even your passwords.
5. **Trojan Horse**: This is a type of malware that pretends to be a legitimate software but can take control of your computer. It's named after the wooden horse the Greeks used to sneak into Troy.
6. **Worm**: This is a type of malware that can spread itself over a network without needing to attach itself to a program. It can reproduce itself and spread to other computers.

### 2. PARLIAMENT SECURITY BREACH & CISF TAKEOVER

On December 13, 2023, two individuals breached Parliament security, entering the Lok Sabha chamber and releasing smoke canisters. This incident highlighted Parliament's security weaknesses, leading to immediate government action.

#### Background:

1. Before this happened, **Delhi Police** were in charge of checking visitors and their bags.
2. This breach is a reminder of the need for good security, especially thinking back to the **2001 Parliament terrorist attack**.

**Details of the Breach:**

1. **2 people** bypassed three security checks to enter the Lok Sabha during a session.
2. They caused a disturbance by shouting slogans and releasing yellow **smoke canisters**.
3. Security staff quickly controlled the situation and no one was hurt.

**Government Actions: The Home Ministry reacted fast by :**

1. **Choosing the Central Industrial Security Force (CISF):** They agreed to let CISF take over security in the Parliament area. CISF will handle both safety and fire services.
2. **Checking Security:** CISF started a detailed check of the Parliament to find weak spots and plan how to protect the area better.
3. **Working with Parliament Security Services (PSS):** CISF will join PSS to control who can enter both the old and new Parliament buildings.
4. **Tougher Security:** They plan to use **airport-level security checks**, like full-body scans and better X-ray machines for bags.

**Importance:** Giving CISF the job of guarding Parliament is a big change. It's expected to:

1. **Make Security Better:** Stricter rules for entering should help prevent future problems.
2. **Upgrade Training and Tools:** CISF's special training and better equipment will make Parliament more secure.
3. **Increase Trust:** It's important for people to trust that Parliament is safe so that democracy can work well.

**Ongoing Issues and Challenges:**

1. Putting these new security plans into action needs good planning and teamwork between CISF and PSS.
2. The investigation into how the breach happened is still going on, and it's not yet clear how the two people managed to bypass security.
3. There are questions about how different security agencies work together to protect Parliament.
4. Some political groups are worried about the possibility of the CISF being used for political purposes in Parliament security.

After the security problem in Parliament, choosing CISF to take over shows how important it is to keep India's key democratic places safe. The success of this new approach depends on doing it well, balancing safety with sincerity, and always being ready for new dangers.

**3. LAUNCH OF SHORT-RANGE BALLISTIC MISSILE 'AGNI-1'**

Recently, a successful training launch of the Short-Range Ballistic Missile 'Agni-1' took place from APJ Abdul Kalam Island, Odisha.

Conducted under the supervision of the Strategic Forces Command, the launch effectively confirmed the validation of all operational and technical parameters.

**Ballistic Missile 'Agni-1'**

1. The Agni-1 is the initial variant of India's Agni missile series, developed under the Integrated Guided Missile Development Program (IGMDP) with a range of around 700 to around 1200 kilometers.

**What is training launch?**

1. Before the induction of the missiles for operational use in the military a training launch is performed.
2. It validates all operational and technical parameters of the missile.
3. The flight trial was a component of an ambitious ballistic missile defense program, aimed at acquiring a sea-based missile as a defense mechanism against ballistic missile threats.
4. The training launch verified the missile as a proven system, showcasing its capability to strike targets with a very high degree of precision.

**About IMGDP**

The Integrated Guided Missile Development Programme (IGMDP) was conceived by renowned scientist Dr. APJ Abdul Kalam in 1982-83 to enable India attain self-sufficiency in the field of missile technology.

**5 Missiles were developed under the IMGDP:**

1. Short-range surface-to-surface ballistic missile **Prithvi**
  2. Intermediate-range surface-to-surface ballistic missile **Agni**
  3. Short-range low-level surface-to-air missile **Trishul**
  4. Medium-range surface-to-air missile **Akash**
  5. Third generation anti-tank missile **Nag**
2. Designed as a Short-Range Ballistic Missile (SRBM), it serves as a strategic nuclear payload carrier, acting as a deterrent against potential threats.
  3. Recognized for its rapid response capabilities, the Agni-1 is a single-stage, solid-fuel missile, with a capacity to carry a 1,000 kg nuclear warhead.
  4. The latest upgrade includes a new guidance system for enhanced accuracy and a new warhead to increase destructive power.
  5. Its road-mobile nature provides high mobility, making it challenging for adversaries to target. The first test-fire was in 2002, and it was deployed by the Indian Army's Strategic Forces Command in 2007, originating from the 1983 IGMDP.
- India has developed various variants of the Agni series of missiles, including:**
1. **Agni-II:** With a range of 2,000–2,500 km, Agni-II uses solid propellant in both stages. This nuclear-capable intermediate-range ballistic missile has a strike range of 2,000 km to 3,000 km and can carry a 1,000 kg payload.
  2. **Agni-III:** First tested in 2006, Agni-III has a range of 3,500 km and carries a warhead of 1.5 tonnes. With lighter warheads, its range extends up to 5,000 km.
  3. **Agni-IV:** The fourth in the series, initially known as Agni II Prime, was first tested in 2011. It has a range of 3,000–4,000 km and operates as a two-stage missile with solid propellant.
  4. **Agni-V:** A solid-fueled Intercontinental Ballistic Missile (ICBM), Agni-V is a three-stage solid-propelled ballistic missile. Boasting a strike range beyond 7,000 km.
  5. **Agni Prime:** It is a two-stage canisterised missile. This missile exhibits the capability to deliver multiple warheads at distinct locations within a range of 1,000 - 2,000 km. It is the latest and sixth variant of the Agni series missiles.

**About ICBM**

An Intercontinental Ballistic Missile (ICBM) is a long-range ballistic missile designed for intercontinental distances, forming a critical component of a country's nuclear triad, which includes land-based missiles, submarine-launched missiles (SLBMs), and strategic bombers. ICBMs are known for their extended ranges, surpassing 5,500 kilometers (about 3,400 miles) and frequently reaching distances exceeding 10,000 kilometers (more than 6,200 miles). They follow a ballistic trajectory, being launched into space before re-entering the Earth's atmosphere to reach their targets.

**What are Ballistic missiles?**

1. A ballistic missile is a self-propelled strategic weapons system, utilizing rockets and guided technology, following a parabolic trajectory to transport a payload from its launch site to a pre-determined fixed target.
2. These missiles have the capacity to carry various types of warheads, including conventional high explosives, as well as chemical, biological, or nuclear munitions.
3. A ballistic trajectory describes the course taken by an object that is launched but lacks active propulsion during its flight (these weapons receive guidance only for relatively short durations).
4. As a result, the trajectory is entirely dictated by factors such as the initial velocity, the influence of gravity, air resistance, and the Earth's motion, including the Coriolis Force.

**Categories of ballistic missiles according to their range include:**

1. Short-range (tactical) ballistic missile (SRBM): Covers distances between 300 km and 1,000 km.
2. Medium-range (theatre) ballistic missile (MRBM): Encompasses ranges from 1,000 km to 3,500 km.
3. Intermediate-range (Long-Range) ballistic missile (IRBM or LRBM): Extends from 3,500 km to 5,500 km.
4. Intercontinental ballistic missile (ICBM): Encompasses distances exceeding 5,500 km

**How Ballistic missiles different from Cruise missiles?**

Ballistic Missile	Cruise Missile
It is propelled only for a brief duration after the launch.	Self-propelled till the end of its flight.
It is similar to a rocket engine.	It is similar to a jet engine.
Low precision as it is unguided for most of its path and its trajectory depends on gravity, air resistance, and Coriolis Force.	Hits targets with high precision as it is constantly propelled.
Long-range missiles leave the earth's atmosphere and reenter it.	The flight path is within the earth's atmosphere.
Can have a very long-range (300 km to 12,000 km) as there is no fuel requirement after its initial trajectory.	The range is small (below 500 km) as it needs to be constantly propelled to hit the target with high precision.
Heavy payload carrying capacity.	Payload capacity is limited.
Can carry multiple payloads (Multiple Independently targetable Re-entry Vehicle)	Usually carries a single payload.
Developed primarily to carry nuclear warheads.	Developed primarily to carry conventional warheads.
E.g. Prithvi 1, Prithvi 11, Agni 1, Agni 11, and Dhanush missiles.	E.g. BrahMos missiles

**4. AKASH WEAPON SYSTEM**

1. In December 2023, During Exercise **Astra Shakti 2023**, a single Akash unit successfully engaged and **destroyed 4 unmanned aerial vehicles (UAVs)** simultaneously.

- This marked a significant milestone, **demonstrating Akash's ability to handle complex multi-target scenarios.**

2. It also established **India** as the **first country** to achieve the accomplishment Using **command guidance** from a single firing unit.

3. The strategic importance of Akash has increased in light of recent border tensions with neighboring countries.

**Boosted Export Potential:**

- This enhances India's aspirations to become a major defense exporter.
- Countries like Vietnam, the Philippines, and Egypt have expressed interest in acquiring Akash, potentially leading to new deals in the future.
- The **cost-effectiveness** of Akash compared to other air defense systems is a major advantage for India and **potential buyers.**

**Ongoing Development and Upgrades:**

- The DRDO is actively working on upgrading Akash with new features and capabilities. This includes

**improved range, accuracy, and resistance to electronic countermeasures (ECCM).**

2. The development of an **Akash Mk II** (The Akash Mk-II is a medium-range, mobile surface-to-air missile defense system) variant with enhanced performance is also underway.

3. Inducted with Indian Air Force and Indian Army.

**Integration with Other Defense Systems:**

1. Efforts are being made to integrate Akash with other Indian defense systems, such as **radars** and **air defense control systems.**

2. This will create a more **robust and comprehensive air defense network.**

**Challenges and Concerns:**

1. Despite its recent successes, Akash still faces challenges such as **dependence on imported components** and competition from foreign air defense systems.

2. Some concerns have been raised regarding the **transparency and fairness of the Akash export process.**

Overall, the Akash weapon system continues to be an important asset for India's air defense and a promising contender in the global arms market. The success of Akash reflects India's growing capabilities

in indigenous defense technology development. With ongoing development and successful demonstrations, Akash is ready to play an even greater role in safeguarding India's skies in the years to come.

## 5. INTERPOL: A CENTURY OF INTERNATIONAL POLICE COOPERATION

Recently, INTERPOL marked its 100-year anniversary, celebrating a century of international police cooperation.

### Key Highlights of the 91st General Assembly

1. The 91st Interpol General Assembly was held in Vienna, Austria, where INTERPOL was created in 1923.
2. The Indian delegation, led by the Central Bureau of Investigation (CBI) and National Investigation Agency (NIA), urged member countries to deny safe havens to crime, criminals, and the proceeds of crime.
3. Resolutions were passed to strengthen the collaborative response to disrupt financial crime and corruption, combat online child sexual exploitation, and promote diversity within Interpol itself.

### Important Facts about Interpol

#### Operation Storm Makers II

Recently, initiated by Interpol, focused on combatting human trafficking and cyber scams, collaborating with law enforcement agencies in **27 countries** across Asia and beyond. The operation exposed an expanding network of fraud activities linked to human trafficking, with victims frequently enticed through deceptive job advertisements and compelled to engage in online fraud, combined with enduring physical abuse.

1. Interpol, or the International Criminal Police Organization, is an inter-governmental organization with 196 member countries.
2. It enables police in all member countries to work together to make the world a safer place.
3. It is headquartered in Lyon, France, with seven regional bureaus worldwide, and a National Central Bureau in all 196 member states.

### Types of Notices Released by Interpol

1. **Red Notice:** To seek the location and arrest of persons wanted for prosecution or to serve a sentence.

2. **Yellow Notice:** To help locate missing persons, often minors, or to help identify persons who are unable to identify themselves.
3. **Blue Notice:** To collect additional information about a person's identity, location, or activities in relation to a crime.
4. **Black Notice:** To seek information on unidentified bodies.
5. **Green Notice:** To provide warning about a person's criminal activities, where the person is considered to be a possible threat to public safety.
6. **Orange Notice:** To warn of an event, a person, an object, or a process representing a serious and imminent threat to public safety.
7. **Purple Notice:** To seek or provide information on modus operandi, objects, devices, and concealment methods used by criminals.
8. **INTERPOL–United Nations Security Council Special Notice:** Issued for entities and individuals who are the targets of UN Security Council Sanctions Committees.

### Key Contributions of Interpol

1. Interpol's key contributions include providing a secure global police communications network called I-24/7, enabling countries to share alerts and requests for information worldwide.
2. It also manages 19 police databases with information on crimes and criminals, accessible in real-time to countries.

### Major Challenges Faced by Interpol and Solutions

Major Challenges	Solutions
Need for a more thorough system of internal reviews	Adopting a more rigorous internal review system to prevent abusive alerts.
Interpretation of rules on political neutrality and human rights	Improving and clarifying how Interpol interprets its rules on political neutrality and human rights
Rapid technological advancements	Developing and implementing innovative solutions to address emerging challenges

### India's Engagement with Interpol

1. India has been a member of Interpol since October 15, 1949.

- The Central Bureau of Investigation (CBI) in New Delhi serves as India's National Central Bureau, connecting India's national law enforcement with other countries and with the General Secretariat.
- In 2022, India hosted the 90th INTERPOL General Assembly.

## 6. INS IMPHAL

Recently, INS (Indian Naval Ship) Imphal has been commissioned into the Indian Navy.

When a new ship is put into the water for the first time, it is termed as 'Launching', whereas when the ship becomes officially ready for active service in the navy, it is termed as 'Commissioning'.

**What is INS Imphal?**

- INS Imphal is one of the 'Project 15 Bravo Vishakhapatnam class' stealth guided missile destroyers.
  - A destroyer is a big, strong warship used for protecting fleets, attacking other ships, and defending against submarines and aircraft.
  - A **warship** is a military ship used in combat or defense. Indian Navy's operates total **132** warships.
  - '**Stealth**' means making a ship hard to see on radar, helping it stay hidden from enemies.

Some common types of warships include:	
<b>Aircraft Carriers</b>	Huge ships that carry and control airplanes, like floating airports for military planes.
<b>Destroyers</b>	Big, fast, and strong ships for fighting enemies in the air, on the surface, and underwater, protecting other ships. Only 13 countries possess Destroyers.
<b>Frigates</b>	Smaller ships that do many jobs like guarding, watching, and defending against submarines, but not as strong as destroyers.
<b>Submarines</b>	Special ships that hide underwater, used for secret missions, attacking enemy ships, and staying hidden.

- The 'Project 15 Bravo Vishakhapatnam class' refers to a series of advanced guided missile destroyers being built for the Indian Navy.

- It includes following destroyers at present:

Destroyer	Commissioning Year
INS Visakhapatnam	2021
INS Mormugao	2022
INS Imphal	2023

- INS Imphal is the **1st warship** to be renamed after a city from **Northeast** India. It is tribute to Manipur's sacrifice & contributions in India's Freedom Struggle.
- It will join the **Western Naval Command**. A naval command is an area where the navy is in charge, managing operations and missions in specific waters.
- There are **3 Naval Commands** in case of India:

Naval Command	Headquarters	Region to oversea
<b>Western Naval Command</b>	Mumbai	Western & Southern maritime areas.
<b>Eastern Naval Command</b>	Visakhapatnam	Eastern maritime region
<b>Southern Naval Command</b>	Kochi	Southern part of the Indian Peninsula.

- INS Imphal is capable of launching the **BrahMos cruise missile**, the world's fastest supersonic cruise missile. A cruise missile is a smart, long-distance weapon, and "supersonic" means it flies faster than the speed of sound. The BrahMos missile is a super-fast cruise missile.

## 7. SOUTH EAST ASIA OPIUM SURVEY 2023

Myanmar, which has been facing a long and violent internal conflict, has now become the top country in the world for making opium. The United Nations Office on Drugs and Crime reports that this country in Southeast Asia has produced more opium than Afghanistan. Afghanistan used to make a lot of opium, but the Taliban government there had stopped its production.

**About Opium poppy plants :**

- Scientific Name:** Papaver somniferum
- Uses:** Opium comes from the young seeds of the opium poppy plant. It's been used for a long time to reduce strong pain, stop coughs, and help people sleep.

**3. Location:**

- (i) The **Golden Triangle** is a known area for illegal opium production. It includes Myanmar, Thailand, and Laos.
- (ii) The **Golden Crescent** is another area known for illegal opium production. It covers Iran, Afghanistan, and Pakistan.

**4. Important fact about India:** India is the only country that the United Nations Single Convention on Narcotic Drugs (1961) allows to legally produce opium gum.

**About UN - Office on drugs and crime (UNODC) :**

1. This organization was set up in 1997 and got its name, United Nations Office on Drugs and Crime (UNODC), in 2002.
2. **Functions:** It helps in carrying out the UN Convention against Transnational Organized Crime (UNTOC) and the UN Convention Against Corruption (UNCAC).
3. **Global Efforts:** It works with three major agreements - the Single Convention on Narcotic Drugs (1961), the Convention on Psychotropic Substances (1971), and the UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988).
4. India has agreed to follow all these three agreements and has put in place the Narcotics Drugs and Psychotropic Substances (NDPS) Act in 1985.

**Key findings of the report :**

1. Myanmar has become the main source of opium in the world, overtaking Afghanistan.
2. The trend of growing poppies in Myanmar is continuing. They are getting better and more productive at it, leading to the highest amount of opium made since 2001. The selling price of opium in Myanmar is also going up.
3. The reasons why people grow poppies: In the Kachin and Shan areas of Myanmar, families and villages that grow poppies usually live in hard-to-reach places. They have less access to markets, lower education levels, and bigger families.
4. The report also shows a lot of opium farming in the Sagaing region of Myanmar, near the border with India.
5. Meanwhile, in Laos, the amount of poppy farming is mostly the same, with a small decrease in the Phongsaly province.

**Security Challenges : Linkages between Various Organized Crimes and terrorism**

1. **Funding Networks:** Selling drugs is a way for criminal groups and terrorist groups to make money.
2. **Hiding Money:** The big profits from drug sales are hidden using complicated methods and hawala transactions.
3. **Bribery:** Drug sellers might bribe officials and police to help their business.
4. **International Operations:** Drug selling networks work across countries and often join hands with other criminals involved in human trafficking, smuggling, and terrorism.
5. **Using Illegal Networks:** The ways set up for drug selling, like transport routes and distribution systems, can also be used by terrorists.
6. **Community Problems:** Drug selling can lead to problems and unrest in communities.
7. **Health Issues:** Drug misuse adds pressure to the healthcare system.

**Conclusion:** Managing borders well, strengthening communities, and offering better ways to earn money are important to reduce the attractiveness of growing opium.

**8. ULFA FACTION SIGNS 'PEACE ACCORD'**

One of the factions of the United Liberation Front of Asom (ULFA) used to support negotiations signed a peace agreement with both the Central government and the Assam government.

**What is the United Liberation Front of Asom (ULFA)?**

1. ULFA is a group in Assam, formed in 1979, that wants to establish Assam as an independent country because they are unhappy with the way Assam is being run. They use violence as a medium to achieve their objectives. Hence, we call it an **insurgent group**.
2. ULFA had different factions, some using violence and others trying to talk with the government for peace.
3. Recently, the faction supportive of talks has signed the **Memorandum of Settlement (MoS) agreement** with the Central government and the Assam government. This agreement aims to end the disagreement and fight among all 3 parties.

**Why did Insurgency start in Assam?**

**1. Ethnic Diversity:** There are a total of 29 Recognised tribes in Assam. Such diversity makes it vulnerable

to conflict among these tribes. Some major tribes and their percentage of the population are:

Tribe	Bodo	Mishing	Karbi	Rabha	Sonowal Kachari	Lalung	Garo	Dimasa
<b>Percentage of the State's Tribal Population</b>	35%	17.52%	11.1%	7.6%	6.5%	5.2%	4.2%	3.2%

**2. Immigration Issues:** Due to the 1971 Bangladesh Liberation War, many people from Bangladesh came and settled in Assam. The sudden change in the demography of Assam led to demands among the locals to send these illegal immigrants back to Bangladesh. The locals wanted to protect the rights and identity of the native population.

**3. Political Dynamics:** Some groups in Assam want more say in how their own areas are run. They directly clash with State Governments or Autonomous Councils to achieve their goals.

**4. Leadership Issues:** According to the Sixth Schedule of the Constitution, autonomous councils are created for the administration of tribal areas, but conflict emerges among the people in the councils for the leadership.

**5. Economic Grievances:** Assam lacks infrastructure and is not much linked with India's broader

economy. The higher unemployment, slowing down of economic growth and rising inflation have frustrated the youth.

**Insurgent Groups in Assam:**

1. ULFA (United Liberation Front of Asom)
2. NDFB (National Democratic Front of Bodoland)
3. KLNLF (Karbi Longri NC Hills Liberation Front)
4. KLO (Kamatapur Liberation Organization)
5. HPC-D (Hmar People's Convention-Democracy)
6. TLA (Tiwa Liberation Army)

**What differentiates ULFA from other groups?**

1. The network of ULFA is very large. It has domestic as well as international alliances with other groups, some of which are situated in the enemy countries.
2. It is said that ULFA ranks second in networking only after the LTTE (Liberation Tigers of Tamil Eelam) in Sri Lanka who killed the former PM Rajiv Gandhi.

**Timeline of Events:**

<b>1979</b>	<b>Formation of ULFA</b>	The fight to liberate Assam started which also involved kidnappings, bombings, etc until 1990.
<b>1990</b>	<b>Operation Bajrang</b>	This military operation was conducted by the Indian Army to counter ULFA's activities in Assam. The army tried to destroy ULFA's infrastructure and regain control over affected areas.
	<b>AFSPA Implementation</b>	The Armed Forces Special Powers Act was enforced in certain regions, including parts of Assam, to give special powers to the armed forces in areas considered disturbed by the government.

**Impact of these Events:**

1. The government took strong action against the ULFA group, which caused it to break into different parts.
2. One of these groups called Surrendered ULFA (SULFA), worked with the Indian and Assam governments to eliminate other ULFA members.

3. Later on, the government tried many times to bring together the different parts of ULFA.
4. The recent agreement is a successful effort by India, but some factions, like the one in the forests of Myanmar, still don't want to talk and are against negotiations.

**Status of Violence in the North East:**

Period	Reduction in Insurgency Incidents	Reduction in civilians getting injured or killed	Reduction in Security forces getting injured or killed
<b>2014-22</b>	76%	97%	90%

**Way Forward:**

- 1. Unifying anti-talk factions:** The government should try to involve groups that are not part of peace talks so that more people are included, and we can find solutions to conflicts that work for everyone.
- 2. Driving growth through development schemes:** Various government initiatives like the North East Special Infrastructure Development Scheme, North-East Industrial Development Scheme, North East Gas Grid, UDAN (Ude Desh Ka Aam Nagrik) scheme, BharatmalaPariyojana, and the Prime Minister's Development Initiative for North Eastern Region need to be effectively implemented to provide economic growth and infrastructure development.
- 3. Creating a dedicated North East Security Council:** Creating a special security council can help deal with the security issues unique to the Northeast region.
- 4. International cooperation:** Working together with neighbouring countries and international organizations through collaborations and partnerships can benefit in many ways, such as trade, security, and regional development. This can promote mutual growth and stability for everyone involved.

## 9. Unlawful Activities (Prevention) Act

**Terms:**

- 1. Secession:** Secession is when a group or region breaks away from a larger country to become an independent Nation.
- 2. Separatism:** Separatism is when a group within a country seeks more independence or autonomy, wanting to govern themselves to some extent while still being a part of that country.

**Context:**

- The **Muslim League Jammu Kashmir** has been declared an "unlawful association" under **Section 3 (3)** of the Unlawful Activities (Prevention) Act (UAPA) for **5 years** by the **Ministry of Home Affairs**.

**What is Muslim League Jammu Kashmir?**

1. Earlier, in the 1980s, a coalition was formed by the Islamic Kashmiri political parties which was named **Muslim United Front (MUF)**.
2. MUF contested the 1987 Jammu and Kashmir Legislative Assembly election which they could not

win to form government. But, the ruling National Conference party was accused of cheating extensively in the election.

3. The dissatisfaction with such practices in elections led some members of MUF to turn towards militancy. Militancy means using force or violence, usually for political or social reasons.
4. Later in 1993, the **Hurriyat Conference** was formed which was a coalition of various separatist groups in Jammu and Kashmir.
5. One of the factions of these coalitions which **Masarat Alam** led was the Muslim League of Jammu and Kashmir which was formed in **1993**.
6. It supported terrorist activities and urged people to establish **Islamic rule** in Jammu and Kashmir. Hence, it has now been detained for 5 years under UAPA.

### What is the Unlawful Activities (Prevention) Act (UAPA)?

1. The UAPA is India's main anti-terror law, punishing actions that threaten the country's **sovereignty** and **security** through **unlawful activities**.
2. In the **1960s**, India was facing internal challenges, including demands for **secession** and **separatist movements** in various parts of the country. So, the Central government was planning to introduce a law anti-secession and anti-separatist law.
3. In **1967**, the **Naxalbari incident** in West Bengal led to the spread of the Naxalite movement creating a sense of terror among people and the state.
4. This triggered the President to bring **ordinance** which was later enacted as Unlawful Activities (Prevention) Act, 1967. (An "ordinance" is a temporary law issued by the government when the legislature is not in session.)

### What are the Key Provisions of UAPA?

- 1. Definition of unlawful activities:** Until 2004, unlawful activities covered only secession and separatism, but after the 2004 amendment the definition was broadened to include - aiding or encouraging terrorists, funding them, inciting anti-national sentiments, and other unlawful activities against the state.
- 2. Wide-Ranging Powers to Central Government:** It grants authority to agencies like the **National Investigation Agency (NIA)** for investigating and prosecuting cases. The **2019** amendment allows the Centre to designate any **organization or person** as a terrorist. **Section 45(1)** says that no

**court** can take any action without prior sanction from the central or state government or an authorized officer.

- 3. Applicability:** The law applies inside and outside India. Both Indian and foreign nationals can be charged under this act.
- 4. Detention and Bail:** People suspected of a crime can be kept in custody for up to 180 days without a trial. Bail may be denied unless the court is convinced of their innocence.
- 5. Punishments:** The Act provides for severe punishments, including the **death penalty** and life imprisonment.
- 6. Special Court:** There are provisions for the establishment of special courts to handle cases related to the UAPA.

#### What are the Arguments In Favour of UAPA:

- 1. Counterterrorism Commitment:** The UAPA shows India is committed to fighting terrorism globally.
- 2. Empowerment of Law Enforcement:** It gives the police the authority to catch and prosecute terrorists.
- 3. Preventive Detention:** Preventive detention is when someone is held temporarily to prevent possible harm or legal violations. The cases like **Safoora Zargar's case** have made preventive detention laws necessary for national security. It is said that she was part of a group that was planning a conspiracy to cause communal tensions in Delhi in 2020.
- 4. National Security:** UAPA is crucial for keeping the nation safe from potential threats.

#### What are the Arguments Against UAPA:

- 1. Fundamental Rights Concerns:** People worry that the UAPA might violate fundamental rights, such as those outlined in Articles 14, 19, and 21 of the Constitution.

- 2. Ambiguity and Discretion:** The unclear definition of unlawful activities and the discretionary powers given to authorities could lead to the misuse of power and possible abuse.
- 3. Denial of Bail and Presumption of Guilt:** Critics say the law goes against the idea of 'innocent until proven guilty' because accused individuals often find it hard to get bail and are treated as if they're already guilty.
- 4. Low Conviction Rates:** The very low conviction rate, just **2.2%** for cases between 2016 and 2019, makes people worry about whether the law is being misused and how well it works.
- 5. Federal Structure Concerns:** Debates arise over the UAPA encroaching on the federal structure of governance, as matters concerning law and order are typically under the **State List** in Schedule 7 of the Constitution.

#### What is the Way Forward:

- 1. Refine Definitions:** Clearly define terms like "unlawful activities" and "terrorist acts" to avoid confusion. The Supreme Court suggested this in the **Maqbool Fida Husain case in 2008** to make sure peaceful protests and rightful dissent aren't considered unlawful. (Rightful dissent is when people express their disagreement or opposition fairly and legally, respecting the rules and values of a democratic society.)
- 2. Shift Burden of Proof:** Make authorities responsible for proving unlawful activity. This ensures a fair legal process by requiring them to show evidence.
- 3. Independent Review:** Create a fair system for independently reviewing cases related to anti-terror laws. This prevents bias, keeps things transparent and protects the rights of individuals involved.

## 10. MILITARY EXERCISES IN NEWS

Name	Countries or Forces Involved	Brief Descriptions
KAZIND	India, Kazakhstan	Indian army forces participated in this exercise in Umroi, Meghalaya.
Nomadic Elephant	India, Mongolia	An India – Mongolia joint military exercise was conducted in Ulaanbaatar, Mongolia
US Military Exercises	US, China	The US held more than 100 large-scale military exercises near China
VINBAX-2023	India and Vietnam.	Fourth edition of this Joint Military Exercise was conducted at Hanoi, Vietnam .



## D. ECONOMY

### 1. 16<sup>th</sup> Finance Commission

The Government of India, following **Article 280(1)** of the Constitution, has formed the 16th Finance Commission with **Dr. Arvind Panagariya** as its Chairman.

#### What is the Finance Commission?

1. The Finance Commission is a **Quasi-Judicial constitutional body** in India formed **every five years** under **Article 280** of the Constitution.
2. “Quasi-judicial” means the Finance Commission has the authority to make significant decisions regarding the division and allocation of tax revenues, which is similar to the authority of a court, but it’s not a full-fledged judicial body.
3. The first Finance Commission in India was constituted in **1951** with **K C Neogy** as its chairman.
4. Its primary function is to recommend how the **tax revenue should be divided** between the Centre and the States, and also among the States themselves.
5. Its recommendations are **advisory**, not binding, although they are typically accepted by the government.
6. Members are **eligible for re-appointment** to maintain expertise and continuity.

#### Key Functions of Finance Commission:

1. **Tax Devolution:** It recommends how to share the money collected as taxes between the central government and the states.
2. **Grants-in-Aid:** It figures out the rules or principles for giving extra money from the central government to the states.
3. **Boosting State Funds:** It gives ideas on how states can get more money to help local groups like panchayats and municipalities,

using recommendations from State Finance Commissions.

4. **Additional Financial Matters:** It looks into any other financial issues or tasks referred by the President for advice or recommendations.

#### What is the qualification and selection procedure for members of the Finance Commission?

1. There is **no specific qualification or selection procedure** mentioned in **Constitution**. The power has been given to parliament to decide the same.
2. The Parliament enacted a **law** in **1951** outlining the composition and functioning of the Finance Commission, including provisions related to the qualifications and appointment of members.
3. Unlike some other bodies, there isn’t a specific committee formed to select members of the Finance Commission.
4. **Criteria for Chairman:** The Chairman should typically have **experience in public affairs**, capable of leading the Commission effectively.
5. **Criteria for 4 Other Members:**
  - a. A **judge from a high court** or someone qualified to hold that position.
  - b. An individual with specialized knowledge of government finance and accounting.
  - c. Someone with extensive experience in financial matters and administration.
  - d. An expert with special knowledge in economics.

#### About 16th Finance Commission

1. It has been constituted for a period of five years **from April 1, 2026**.
2. **15th Finance Commission** had to provide its report in **2 phases** due to Covid-19 which included:
  - a. Phase 1 between April 1, 2020 to March 31, 2021.
  - b. Phase 2 between April 1, 2021 to March 31, 2026.

#### Comparison between 14<sup>th</sup> and 15<sup>th</sup> Finance Commission in Tax Devolution among States:

Criteria used for Distribution	14th Finance Commission	15th Finance Commission	Explanation
1. <b>Income-Distance</b>	50%	45%	“Income distance” is how much richer or poorer different states are compared to the average income of the whole country. The idea is to provide more money to poorer states.

<b>2. Area</b>	15%	15%	Allocation of funds based on state's geographical area i.e. larger states to get more funds
<b>3. Population</b>	17% (as per Census 1971)	15% (as per Census-2011)	Allocation of More funds to more populous state. Southern states were unhappy as they have taken population control measures after 1971 and they will get lesser funds due to having lesser population when Census 2011 data is used.
<b>4. Demographic Change</b>	10% (as per Census 2011)	12.5% (Demographic Performance)	Demographic Change represents change in the population which may occur due to migration. 15th FC has taken Demographic Performance which represents how well a state handles things related to its population. So, states who control their population get rewarded in this parameter.
<b>5. Forest Cover</b>	8%	10%	States with more forest cover get more fund to encourage sustainable development
<b>6. Tax Effort</b>	-	2.5%	Tax effort assesses how well a government is utilizing its capacity to collect taxes. 15th FC rewards states which effectively collect taxes.

### The Terms of Reference (ToR) for the 15th Finance Commission:

1. Deciding the distribution of Tax and Grant-in-aid.
2. Finding ways to increase the funds for State Governments to support their local bodies (PRI/ULBs). Also, providing grants to all tiers of Panchayati Raj.
3. Using the 2011 Census data for calculations and recommendations.
4. Recommending incentives based on state governments' performance, like reducing population growth and stopping misuse of resources.
5. Recommending measures for better financial discipline for both Union and State governments.
6. Suggesting ways to finance disaster management initiatives.
7. Suggesting ways to allocate funds for defence and internal security, especially non-lapsable funds.
8. Deciding on an award for the Union Territory of Jammu and Kashmir as a new UT has been formed.

## 2. RBI's 'REPORT ON STATE FINANCES'

The Reserve Bank of India (RBI) recently released the annual report titled 'State Finances: A Study of Budget of 2023-24' with a focus on 'Revenue Dynamics and Fiscal Capacity of Indian States'.

### Key Findings of the Report

1. **Prudent (well-judged/wise) Fiscal Management:** States' consolidated gross fiscal deficit to gross domestic product (GFD-GDP) ratio decreased by 1.3% (4.1% in 2020-21 to 2.8% in 2021-22).
  - (a) This decline resulted from a moderation (within reasonable limits) in revenue expenditure and an increase in revenue collection.
  - (b) **Gross fiscal deficit (GFD)** is the amount by which a government's total expenditure exceeds its revenue receipts and non-debt capital receipts (receipts that the government receives from the sale of old assets).
2. **Increased Capital Outlay:** Capital outlay (capital expenditure) is projected to rise by 42.6% in 2023-24, reaching 2.9% of GDP. Capital outlay involves spending on asset creation, influencing economic output positively.
3. **States' Total Outstanding Liabilities:** The debt-to-GDP ratio of states decreased from 31% (March 2021) to 27.5% (March 2023).
  - (a) Despite this, outstanding liabilities may remain above 30% of Gross State Domestic Product (GSDP) for many states.

- **The debt-to-GDP ratio** measures the proportion of a country's national debt to its gross domestic product.
  - **Gross State Domestic Product (GSDP)** is the sum total volume of all finished goods and services produced during a given period of time, usually a year, within the geographical boundaries of the State.
- (b) Support from the Centre, in the form of **50-year interest-free capex loans**, aided in reducing states' interest burden.
4. **Net Market Borrowings:** States' reliance on **net market borrowings decreased** to 76% in the budgeted gross fiscal deficit (GFD) for 2023-24.

This decline is attributed to an **increase in states' loans from the Centre**.

5. **Increased Tax Buoyancy:** Implementation of **goods and services tax (GST)** resulted in enhanced **tax buoyancy** for the states. GST implementation contributed to greater formalization of the economy, expanding the tax base.
- (a) **Tax buoyancy** is a key indicator used to **measure the efficiency of a government's tax system**. It is a measure of how responsive a country's tax revenue is to changes in its Gross Domestic Product (GDP).
6. **Committed Expenditure:** It includes **interest payments, administrative services, and pension**. It is expected to remain at **4.5% of GDP**.

Concerns Regarding State Finances	Solutions
1. Non-tax revenues remain at around 1% of GDP, significantly lower than some countries.	1. Revise user charges, royalties, and premiums, and explore asset monetization.
2. Allocations for key sectors have been reduced, impacting development initiatives.	2. Link conditional transfers to reforms, encouraging states to improve economic performance.
3. Reverting to Old Pension Schemewould strain state finances, limiting growth-oriented expenditures.	3. Enhance fiscal capacity for efficient service delivery and capital investment.
4. Further provision of non-merit goods and services could jeopardize (put something at risk) fiscal consolidation.	4. Streamline fund transfers, enhance banking arrangements, and improve cash management practices.
5. Illegal mining poses a threat to revenue.	5. Use Geographic Information Systems and Drone Surveys to identify and curb illegal mining activities.
6. Inadequate progress toward climate goals.	6. Introduce incentives for states making significant strides in achieving national climate goals.

**Important Concepts**

1. **N K Singh Committee Recommendations:**

(a) The **combined debt-to-GDP ratio** of the center and states should be reduced to **60% by 2023** (comprising 40% for the Centre and 20% for states).

(b) The committee suggests incorporating (including) **"escape clauses"** allowing deviation from fiscal targets under specific circumstances like national security, acts of war, national calamities, etc.

2. **Important Non-tax Revenue Sources:**

(a) **Lease/sale of natural resources**, such as minerals.

(b) **User charges** on economic/social services provided by the government, like irrigation, electricity, health, education, forestry, and wildlife.

(c) **Lotteries.**

(d) **Interest receipts** from loans extended to entities like public sector undertakings (PSUs) and local bodies.

3. **Fiscal Capacity of States:**

(a) **Fiscal Capacity** reflects the State govt's ability to meet expenditures through its own revenue receipts. Currently, the States finance only **58%** of their revenue expenditure from their own revenue sources.

- (b) Factors contributing to Fiscal Capacity include **lower share of agriculture GSDP, high per capita income, high education levels, low inflation, low corruption, and lower size of the shadow economy.**

### 3. AMPLIFI 2.0

1. The **Ministry of Housing and Urban Affairs** has introduced **AMPLIFI 2.0** (Assessment and Monitoring Platform for Livable, Inclusive, and Future-Ready Urban India).

- (a) **Aim** : To provide comprehensive data on Indian cities.
2. It **aggregates raw data from Indian cities** on a single platform, facilitating data-driven policymaking for **academics, researchers, and stakeholders.**
3. Currently, **258 urban local bodies (ULB)** are onboarded, offering data for **150 cities** on the portal.
4. Provides a diverse range of information for various cities, including metrics like **total diesel consumption** and the **number of samples tested for water quality.**

#### Urban Outcomes Framework 2022

- Developed for the Ministry by the **National Institute of Urban Affairs and PwC India.**
- Shifts focus from indices to data, presenting a comprehensive list of indicators.
- Streamlines (to make something simpler, more effective) data across **14 sectors** to enhance

focus on data collection, allowing domain experts to analyse disaggregated (to separate) data.

- Creates an opportunity to establish **new frameworks** based on open data.
- The 14 sectors covered are — **demography, economy, education, energy, environment, finance, governance, health, housing, mobility, planning, safety and security, solid waste management, and water and sanitation.**

### 4. ONE NATION ONE PASS

Recently, Central Government introduced the **National Transit Pass System (NTPS)** also called as **One Nation One Pass**, which would help smooth transportation of forest goods like wood, bamboo, and other forest goods across country.

#### Situation before NTPS

Before the introduction of NTPS, obtaining transit permits from each different states along the route was a time-consuming process, causing hurdles in transporting timber and forest products across the states.

#### Major Benefits of NTPS

- It streamlines timber transit permits with a **unified, online** mode.
- Tree growers** and **agroforestry** farmers nationwide would benefit by **easier** business.
- QR codes** on transit permits from NTPS help check gates in different states verify permit validity.
- Users can generate **No Objection Certificates** for **exempted species.**

#### Other Initiatives for promoting Agroforestry

<b>Minimum Support Price (MSP) for MFP</b>	<b>Objective:</b> Ensure fair prices for tribal communities' minor forest produce. <b>Implementation:</b> MSP for MFP scheme by the <b>Ministry of Tribal Affairs</b> ensures remunerative prices for forest produce like honey, bamboo, tamarind, and medicinal plants.
<b>Van Dhan Yojana</b>	<b>Objective:</b> Promote skills and entrepreneurship among tribal communities. <b>Implementation:</b> <b>Van Dhan Vikas Kendras</b> establish self-help groups, adding value to produce and empowering tribal gatherers economically.
<b>National Bamboo Mission (NBM)</b>	<b>Objective:</b> Promote bamboo sector growth for livelihoods and environmental benefits. <b>Implementation:</b> NBM supports bamboo cultivation and processing, encouraging farmers to integrate bamboo into agroforestry practices for added income sources.
<b>Sub-Mission on Agroforestry (SMAF) Scheme:</b>	<b>Implementation:</b> Department of Agriculture, Cooperation & Farmers welfare (DAC & FW) since 2016-17. <b>Objective:</b> Encourage farmers to plant <b>multi-purpose trees</b> alongside crops for climate resilience and added income. <b>Requirement:</b> Farmers need a <b>soil health card</b> to avail benefits.

<b>Joint Forest Management (JFM):</b>	<b>Objective:</b> Involve local communities in forest protection and management. <b>Implementation:</b> JFM promotes community participation in managing forest resources, ensuring a balance between conservation and livelihood needs.
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## 5. INDIA AS A MICE DESTINATION

In December 2023 **Ministry of Commerce & Industry (MoCI)** stated that India will be promoted as a global **MICE (Meetings, Incentives, Conferences, and Exhibitions)** destination.

### Objective

#### What is MICE (Meetings, Incentives, Conferences and Exhibitions)?

It's a part of business and corporate tourism. It includes arranging events, meetings, conferences, exhibitions, and incentives for companies and groups. The goal is to help with networking, sharing knowledge, forming business partnerships, and displaying products and services in a professional or business setting.

1. To showcase **MSME sector**, traditional crafts, artisanal products, weavers, and manufacturing strength.
2. To emphasize India's global presence and **boost economic engagement**.
3. To showcase this in upcoming mega events like Atma Nirbhar Bharat Utsav, Indus Food, Bharat Mobility Global Expo 2024, and Bharat Tex.

#### India's Position Globally in MICE & Scope

1. In the 2019, ICCA (International Congress and Convention Association) rankings, the USA led with 934 meetings, followed by Germany and France. **India is placed 28th with 158 meetings.**
2. India's MICE infrastructure matches developed countries, reflected in improved World Bank Ease of Doing Business and WEF Travel and Tourism Competitiveness Rank (54th in 2021).

#### Significance of MICE for India

1. **Economic Impact:** MICE tourism can increase business travel, benefiting sectors like hospitality, travel, and services.
2. **Enhancing India's Image:** It will showcase India's infrastructure capabilities to the world.
3. **Cultural Exchange and Networking**

#### Ways to promote India as a MICE destination:

1. **Improving infrastructure, promoting destinations,** and smoothing processes can help India use its potential better and gain global prominence.

2. **"Meet in India "** brand, and infrastructure status to MICE for easier financing.
3. **Skill development** specifically for the MICE industry.
4. Developing a complete **MICE Ecosystem** that will act as one stop shop for organizing events and conferences in the city.

## 6. VIABILITY GAP FUNDING FOR BESS

1. The **Ministry for Power and New & Renewable Energy** has approved the scheme for **Viability Gap Funding (VGF)** for development of **Battery Energy Storage Systems (BESS)**.
  - a. **Viability Gap Funding** is a **government** incentive program that helps make projects economically viable by paying a portion of the total capital cost.
  - b. **BESS** devices store energy from renewable sources like solar and wind, releasing it when needed. They enable efficient utilization of renewable energy by storing and releasing power based on demand.
2. **Key Features of the Scheme:**
  - a. Aims to develop **4,000 MWh** of BESS projects by **2030-31**.
  - b. Government provides **financial support of up to 40%** of the capital cost as budgetary support in the form of **Viability Gap Funding (VGF)**.
  - c. The selection of public and private sector entities will be conducted through a **transparent bidding process** by implementing agencies.
  - d. To ensure widespread benefits, a minimum of **85% of the power generated from VGF-funded BESS projects** will be allocated to **Distribution Companies (Discoms)** before becoming available to others.
3. **Benefits of the Scheme:**
  - a. Designed to harness (control and make use of) the potential of renewable energy sources like **solar and wind power**.
  - b. Aims to provide **clean, reliable, and affordable electricity** to citizens.

- c. Expected to **reduce the cost** of battery storage systems, increasing their viability (feasibility).
  - d. Enhances the integration of **renewable energy into the electricity grid**.
  - e. Minimizes wastage while optimizing the utilization of **transmission networks**.
  - f. Reduces the need for **costly infrastructure upgrades**.
4. **Aligned with India's Renewable Energy Goals:**
- a. This scheme aligns with India's ambitious renewable energy goals. Currently, the country meets **25% of its energy demand** from renewable sources.
  - b. This initiative aims to achieve **50% of its energy requirements** from renewable and non-fossil sources by the year **2030**. This ambitious target reflects the nation's commitment to sustainable and clean energy.

## 7. GREEN DEPOSITS FRAMEWORK BY RBI

The **Reserve Bank of India (RBI)** has recently clarified its position on the **'Framework for Acceptance of Green Deposits.'** The framework became **effective from June, 2023**.

### What is meant by Green Deposits?

1. They are **Interest-bearing fixed deposits** (pays interest to the depositor based on a percentage) **in Indian rupees**, similar to regular fixed deposits.
2. Proceeds from green deposits allocated to projects or **activities yielding environmental benefits**.
3. Some banks issue a **green certificate** to depositors, recognizing their contribution to creating a greener and more sustainable planet.

### Purpose of the Framework:

1. Encourage the offering of **green deposits** to customers.
2. Protect the interests of **depositors**.
3. Aid customers in achieving their **sustainability agenda**.
4. Address concerns related to **greenwashing** (process of conveying a misleading information about how a company's products are environmentally sound).
5. Improve the flow of credit to **green activities/projects**.

### Key Points from the Green Deposits Framework:

1. Funds from **green deposits** must be used for activities promoting **energy efficiency, reducing carbon emissions, climate resilience, and preserving biodiversity**.
2. Deposits raised under the framework are covered by the **Deposit Insurance and Credit Guarantee Corporation (DICGC)**.
  - The **DICGC** provides **deposit insurance and credit guarantee** to commercial banks that are registered under the RBI Act.
  - It's **not mandatory for banks and NBFCs** to raise green funds. But if they do so, they will have to follow the prescribed framework.
3. **Utilization and Temporary Parking:** Banks can temporarily place proceeds from green deposits in **liquid instruments** (investments an individual may easily convert to cash) with a maximum maturity of up to one year before allocating them to green activities.
  - The banks cannot finance green activities/projects first and raise green deposits later. The framework is applicable for deposits raised **on or after June 1, 2023**.
4. **Relation to Sovereign Green Bonds:** Activities listed in the **green deposit framework** align with those in **sovereign green bonds**, making investments in such bonds **covered under the framework**.
  - **Sovereign green bonds** are **debt securities issued by governments** to raise money for climate and environmental initiatives.
5. **Interest and Withdrawal:** Banks must pay **interest on green deposits** to customers.
  - Banks can offer **overdraft (OD) facilities** against green deposits.
  - There is **no restriction on the premature withdrawal** of green deposits, and withdrawals won't impact activities/projects funded by these deposits.
6. **Currency Denomination:** The framework **doesn't permit green deposits** to be denominated in any foreign currency.

### Green Finance Ecosystem

1. **Green Finance Ecosystem (GFS)** refers to the financial system facilitating (make easy/easier) investments in environmentally sustainable projects and activities.

2. Includes financial products like **green bonds, green loans, green insurance, and green funds** to promote eco-friendly practices and projects.
3. **Objectives:**
  - a. Aims to establish a financial system supporting the transition to a **low-carbon, resource-efficient, and sustainable economy**.
  - b. Addresses risks and opportunities linked to environmental issues such as **climate change, pollution, and biodiversity loss**.
4. **Indian Context:**
  - a. India on the **path to carbon neutrality** with a '**Green Deal**' aiming for **2070**.
  - b. Green finance classified as an enabler for **decarbonisation**, highlighting the need for increased capital from the government and private entities for green infrastructure.
  - c. Introduction of **carbon trading** through the '**Perform Achieve and Trade (PAT)**' scheme.
    - **PAT Scheme** aims to make **India's industrial sector energy efficient**.
  - d. According to the **World Economic Forum**, the market for **green bonds could reach over two trillion dollars by 2023**.

## 8. WORLD BANK'S MIGRATION AND DEVELOPMENT BRIEF REPORT

The latest '**Migration and Development Brief**' report from the **World Bank** emphasizes India's significant position as the **top remittance recipient**.

### World Bank Migration and Development Brief

1. Prepared by the **the Migration and Remittances Unit, Development Economics (DEC), the premier research and data arm of the World Bank**.
2. Published **twice a year**.
3. Aims to **update on key developments** in migration, remittance flows, and related policies over the last six months.

#### Key Data:

- **Largest Source of remittance:** United States followed by Saudi Arabia.
- **Remittance recipient countries:** India (\$125 billion), Mexico (\$67 billion), China (\$50 billion)
- **Highest Growth:** Latin America and the Caribbean countries.

### Key Findings on Global Remittance

1. **Global Remittance:** Estimated at **\$860 billion in 2023**, marking a **3% increase** from the previous year.
2. **Remittances to Low and Middle-income Countries (LMICs):** Expected to reach **\$669 billion** with a **3.8% growth** in 2023.
  - (a) Remittances continue to be the **primary source of external finance for LMICs** compared to FDI and official development assistance.
  - (b) **South Asia** anticipates the **highest growth in remittances** (\$89 billion) among LMICs in 2024, **driven entirely by flows to India**.

### Significance of Remittance for Developing Countries

1. **Economic Growth:** Remittances received by households contribute to **increased savings and demand in the economy**, leading to **additional government revenue for development**.
2. **Funding Fiscal Deficit:** Crucial for developing countries without access to international capital markets, serving as a **major source of external financing** and **supporting the Balance of Payment**.
  - (a) In countries like Tajikistan and Tonga, remittances represent a significant portion of GDP (48% and 41%, respectively).
3. **International Borrowing:** Future remittance inflows can serve as collateral, reducing the costs of international borrowings for developing nations.
4. **Sustainable Source of Finance:** Remittances exhibit (show) **stability and countercyclical behaviour** during economic downturns, providing consistent support to recipient countries.
  - (a) Migrants often send more during crises to assist their families.
  - (b) **Countercyclical** refers to a behavioural pattern of investment behaviour which acts contrary to dominant market investment trends
5. **Improve Country Creditworthiness:** Remittances improve a country's creditworthiness due to their substantial size relative to other foreign exchange sources, countercyclical nature, and indirect contribution to public finances.
  - (a) They enhance sovereign ratings and strengthen the country's repayment capabilities.

**Remittance Flow in India**

1. **Largest Recipient:** In 2023, India received an estimated **\$125 billion** in remittances, making it the **world’s largest recipient**. However, the share of remittances in the economy was only **3.4%**.

- Ways of Mobilizing Diaspora Finances:**
- **Non-resident Deposits (NRI Deposits):** Foreign currency deposits made in an Indian bank by a non-resident Indian, amounting to **\$143 billion** as of September 2023.
  - **Diaspora Bonds:** Structured to directly tap diaspora savings held in foreign destinations.

2. **Source Countries :** Remittances from the **US, UK, and Singapore** (high-skilled migrants) collectively contribute to **36%** of total remittances. **UAE** is the **second-largest source**, accounting for **18%** of the total.
3. **Key Factors Driving Remittance Growth:**
- (a) Historically **tight labour market** in the **United States**.
  - (b) **High employment growth** in **Europe** due to extensive worker retention programs.
  - (c) **Lowering of inflation** in **high-income countries**.

Concerns Related to Remittance	Solutions
1. Some countries, including Italy, Germany, Norway, Sweden, have implemented restrictive measures in response to increased migration flows.	1. Encourage diplomatic efforts to advocate for more open policies regarding remittance flows, facilitating smoother transactions for migrants.
2. Banks remain the costliest channel for remittance, with an average cost of 12%, followed by post offices (7%), money transfer operators (5.3%), etc.	2. Implement policies to encourage affordable options like money transfer operators and mobile platforms.
3. Exchange controls lead migrants to use informal channels due to disparities in official and parallel exchange rates.	3. Align official and parallel rates to discourage informal channels and ensure transparency.
4. Migrants face a decline in real income due to global inflation and low growth in 2024.	4. Implement programs to provide financial stability during economic challenges.
5. Human Costs, Skilled Labor Shortages, Money Laundering, Dependency Creation	5. Family Support Initiatives, Skills Development Programs, Anti-Money Laundering Measures, Empowerment Programs

**9. INDIA TOPS IN INLAND CAPTURE WATER FISHERIES WORLDWIDE**

1. Recently, **India surpassed China** to become the **leading contributor to inland capture water fisheries**, securing a spot among the top three global fish-producing countries.
- **The top 3 countries for total fisheries production are: 1) China, 2) Indonesia and 3) India.**
2. **Inland fisheries** involve the harvesting, management, and conservation of fish in freshwater bodies like rivers, lakes, reservoirs, and ponds.

**Methods of Inland Fisheries**

1. **Capture Fisheries:** Directly obtaining fish from lakes, rivers, or ponds using fishing gears or nets.

2. **Culture Fisheries:** Raising and harvesting fish in controlled environments with breeding or feed management tools.

**Types of Inland Fisheries:**

1. **Tanks and Ponds:** Dominated by culture-based fishery, offering substantial potential with India having **2.36 million hectares** of tanks and ponds.
2. **Brackish & Saline Aquaculture:** Primarily used in **shrimp aquaculture** and transforming waste land into wetlands.
3. **Cold Water Fisheries:** They are found in the Himalayan and peninsular regions. These regions have upland water at high altitudes and spring water at low altitudes, which remain cooler than other areas.
  - Himalayan states present a unique opportunity for promoting omega-packed trouts (oily fish).

4. **Ornamental Fisheries:** It is the practice of raising colorful and attractive fish in a confined aquatic system. Ornamental fish are also known as **living jewels**.
5. **Cage Culture in Reservoirs:** Promoting culture-based fisheries in small and medium reservoirs.
6. **Riverine Fisheries:** It involves catching fish from rivers and lakes for commercial purposes and restoring natural productivity.

**Benefits of Inland Fisheries:**

1. **Nutritional and Food Security:** Rich in **protein, omega-3 fatty acids, and Vitamin D**. They act as affordable alternatives, enhancing **dietary diversity** and meeting **nutritional requirements**.
2. **Economic Benefits:**
  - a. Generate **employment opportunities**.
  - b. Contribute to the development of **rural infrastructure**.
  - c. Establish a **diverse supply chain**.
  - d. Increase foreign exchange earnings through **exports of processed products**.

**Environmental Impact:**

- a. **Maintenance of Healthy Ecosystems:** Control invasive species, supporting **biodiversity**.
- b. **Bioremediation:** Aid in habitat restoration, removing excess nutrients from urban or agricultural runoff, reduce the likelihood of toxic algal blooms.
  - Bioremediation is a biotechnology technique that uses living organisms to remove contaminants from soil, water, and other environments.
- c. Sustain **ecological balance** as fishes benefit other species in aquatic food webs.
3. **Social and Cultural Significance:** Preserve **traditional knowledge systems** of the community.
  - a. **Strong cultural ties** contribute to cultural heritage.
  - b. **Recreational fishing** promotes physical and mental well-being.

**Challenges and solutions associated with Indian Inland fisheries**

Challenges in Indian Inland Fisheries	Solutions
1. Slow adoption of cutting-edge technologies like innovative hatchery (facility where eggs are hatched) technologies and water-efficient aquaculture practices.	1. Adoption of emerging technologies such as <b>big data, blockchain, and IoT-based supply chain systems</b> to minimize losses and improve traceability.
2. Issues like lack of timely credit and insufficient price discovery mechanism due to the absence of an efficient electronic trading platform, post-harvest losses, etc.	2. Implementing a <b>multi-stakeholder approach</b> by involving fishermen, boat owners, and government organizations in the decision-making process.
3. Inadequate cold chain facilities and insufficient Post-Harvest Infrastructure.	3. <b>Infrastructure development</b> by building food parks, cold storage units, chiller boxes, and ice factories to enhance logistical support and improve product shelf life.
4. Inadequate mechanization and the use of traditional boats leading to water pollution and improper aquaculture management.	4. Adoption of the <b>FAO’s Code of Conduct for Responsible Fisheries</b> to promote sustainable and responsible fish farming practices.
5. Rising demand for animal protein leading to the over-exploitation of fish stocks in various places.	5. Establishment of <b>Fish Farmer Producer Organizations (FFPOs)</b> , serving as institutional platforms for product delivery, services, and market linkages.

1. **Measures for Fisheries Sector Development in India**
  - (a) **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** : Under the Ministry of Fisheries, Animal Husbandry, and Dairying aims for

overall development in the Fisheries sector.

- Activities include developing **aquaculture infrastructure, cold storage, and fish tourism** to increase fish production, aquaculture productivity, and exports.

- (b) **National Genetic Improvement Facility:** Established under the PMMSY scheme with focus on shrimp breeding to reduce reliance on a single species, favouring indigenous species over invasive prawn species.
- (c) **National Fisheries Development Board (NFDB) :** Operates under the **Ministry of Agriculture** and aims to increase fish production and coordinate fishery development in an integrated manner.
- (d) **National Surveillance Programme for Aquatic Animal Diseases (NSPAAD) :** Focuses on disease surveillance in aquaculture.
- (e) **Fisheries and Aquaculture Infrastructure Development Fund (FIDF) :** Provides concessional finance for the creation of infrastructure facilities.
- (f) **Kisan Credit Card (KCC) Facility:** Extended to fishermen to assist in meeting their working capital needs.
- (g) **e-Gopala App:** Aims to assist farmers in aquaculture by providing market information and eliminating the role of middlemen.

## 10. NGDR PORTAL LAUNCHED BY MINISTRY OF MINES

Recently, the Ministry of Mines launched the National Geoscience Data Repository or NGDR Portal.

### About NGDR Portal

1. Established as part of the National Mineral Exploration Policy (NMEP) in 2016, this initiative aims to provide access to geological, geochemical, geophysical, and mineral exploration data to the public on a digital geospatial platform.
2. The platform encompasses baseline geoscience data and mineral exploration information generated by diverse central and state government agencies.
3. The initiative for the National Geospatial Data Repository (NGDR) was led by the Geological Survey of India (GSI) and the Bhaskaracharya Institute of Space Applications and Geoinformatics (BISAG-N).

### Portal Significance

1. Enhances transparency and knowledge sharing by providing open access to vital geoscience data, promoting democratization.

2. Facilitates and expedites comprehensive exploration coverage of the country.
3. Boosts the investment appeal of the mining sector.

### National Mineral Exploration Policy (NMEP) 2016

1. It focuses on exploring concealed and deep-seated mineral deposits, proposing swift aerogeophysical surveys nationwide and establishing a dedicated geoscience database.
2. The Ministry of Mines will conduct the auctioning of identified exploration blocks for private-sector exploration.
3. The suggestion includes employing space technology to combat illegal mining by developing a mining surveillance system.
4. Utilizing low-altitude and close space flights to comprehensively map the entire country, pinpointing the precise locations of deep-seated minerals like gold, silver, copper, and others.
5. Additionally, there is a proposal to establish a not-for-profit autonomous institution named the National Centre for Mineral Targeting (NCMT).

### Geological Survey of India (GSI)

1. The Geological Survey of India (GSI) was established in 1851 with its primary objective being the discovery of coal deposits for the Railways.
2. With headquarters in Kolkata, it operates through six regional offices situated in Lucknow, Jaipur, Nagpur, Hyderabad, Shillong, and Kolkata.
3. Functioning as an attached office of the Ministry of Mines, GSI is responsible for generating and maintaining the national geoscientific information and conducting assessments of mineral resources.
4. Additionally, it systematically records both surface and subsurface geological processes occurring in India and its offshore regions.

### Bhaskaracharya Institute of Space Applications and Geoinformatics (BISAG-N).

1. BISAG-N is an independent scientific society officially registered under the Societies Registration Act, 1860.
2. Operating under the Ministry of Electronics and Information Technology (MeitY), Government of India, it is situated in Gandhinagar, Gujarat.

3. Specializing in research and development and capacity building in the realm of geospatial technology, BISAG-N has successfully executed a Geographic Information System (GIS) tailored for government applications.

## 11. GTRI REPORT ON INDIA'S EXPORTS

**GLOBAL TRADE RESEARCH INITIATIVE (GTRI)** report has highlighted the Indian export scenario, FTA's and made recommendations.

### Major findings of the GTRI Report

1. Many countries want to make deals with India to trade freely through FTA's (Free Trade Agreements). They are interested because **India has high taxes on imported goods**, making it hard for them to sell in India's big and fast-growing market.
2. But the countries negotiating with India have lower import duties than India itself.
  - a. **For example**, the UK, Canada, and the USA have duties at 4.1%, 3.3%, and 2.3%, respectively, while **India's duties are higher at 12.6%**.
  - b. This suggests that India may not see a big increase in exports through Free Trade Agreements (FTAs), as these countries already have low or no import duties.

An **FTA (Free Trade Agreement)**, is a deal between two or more countries to make it easier to trade goods and services with each other. In this agreement, the countries agree to reduce or eliminate certain taxes (called tariffs) on the products they trade. The goal is to promote economic cooperation and boost business between the countries involved.

3. **India's exports are not doing well** because taxes on imports are high in India, but lower in countries it has trade deals with. GTRI report points that Indian companies often don't use these trade deals when taxes are already low, as the costs of following the deal rules don't make up for the tax benefits.
4. One of the **reasons why India's important trade agreements (FTAs) with ASEAN, South Korea, and Japan didn't work well** is because of the **difference in import taxes**. This led to a big increase in India buying more goods from these partners compared

to what it sells to them, making the trade deficit much larger.

5. **India has been selling fewer goods to its FTA partners** compared to what it's been buying from them.
  - a. With **ASEAN**, India's exports increased by 123.9%, but India's imports went up by 175.7%.
  - b. With **Japan**, India's exports grew by 56.4%, but imports increased by 98.5%.
  - c. With **South Korea**, India's exports went up by 89.1%, but imports surged by 127.3%/
6. **Other issues** include: Infrastructural deficits in the agricultural sector, quality control issues, and non-tariff barriers etc.

### Policies of Developed Countries

1. Developed countries like the United States and countries of European Union use high import taxes and subsidies. They do this to discourage imports and boost their own exports.
2. Countries like Australia, which export a lot of agricultural products, want India to reduce taxes and subsidies on farm goods so they can sell more. These countries also use advanced technology to produce more, making their products more competitive.

### Report Recommendations:

1. Creation of a common exclusion list for merchandise trade.
2. Focusing on obtaining real market access.
3. Engaging in sectoral agreements with poor and developing countries.
4. Exploring new subject areas such as environment, labor, data governance, digital trade, gender, small and medium enterprises, anti-corruption, and sustainable food systems.
5. Focus on modern infrastructure, quality control etc. in the agriculture sector.
6. Diversify the agricultural export basket.

**India's initiatives for export promotion**

1. **Export Credit Guarantee Corporation (ECGC)**: ECGC provides insurance cover to Indian exporters against the risk of non-payment by overseas buyers.
2. **Merchandise Exports from India Scheme (MEIS)** : MEIS aims to incentivize exports of specified goods to certain countries by providing duty credit scrips to exporters.

3. **Services Exports from India Scheme (SEIS):** SEIS encourages the export of notified services by providing rewards to service providers.
4. **Export Promotion Capital Goods (EPCG) Scheme:** EPCG allows import of capital goods at zero or concessional customs duty for the production of export goods.
5. **Trade Infrastructure for Export Scheme (TIES):** TIES aims to create modern infrastructure to boost export competitiveness.
6. **Market Access Initiative (MAI):** MAI is a financial assistance scheme to promote exports by accessing new markets and market research.
7. **Foreign Trade Policy (FTP):** The FTP provides a framework for enhancing exports, simplifying procedures, and promoting trade.
8. **Export Promotion Councils (EPCs):** EPCs are industry-specific organizations that promote and facilitate exports in various sectors.
9. **Special Economic Zones (SEZs):** SEZs offer a conducive environment for export-oriented production.
10. **National Trade Facilitation Action Plan (NTFAP):** NTFAP focuses on simplifying and streamlining trade processes to reduce transaction costs and boost exports
11. **Foreign Trade Policy 2023:** A government framework outlining strategies and measures to enhance and regulate India's international trade.
12. **Agriculture Export Policy 2018:** A policy focusing on promoting and boosting agricultural exports from India to global markets.
13. **One District-One Product:** An initiative aiming to develop specific districts as specialized export hubs, each focusing on a unique product to promote local industries and exports.

## 12. FSB'S REPORT ON MULTI-FUNCTION CRYPTO-ASSET INTERMEDIARIES

The **Financial Stability Board (FSB)** in their latest report assessed the risks associated with multi-function crypto-asset intermediaries (**MCI**s) due to their **structural vulnerabilities**.

### About Financial Stability Board :

1. The **FSB is an international body** that monitors and makes recommendations about the global financial system. It was **established in 2009 under the aegis of G20** .
2. **India is an active Member of the FSB** having **3 seats** - represented by (i) Secretary of Economic Affairs ,**Ministry of Finance** (ii) **Deputy Governor** of Reserve Bank of India (**RBI**) (iii) **Chairperson** of Securities and Exchange Board of India (**SEBI**).

### What are crypto assets?

1. Crypto assets are a **digital representation of value** that you can transfer, store, or trade electronically. **Eg. cryptocurrencies like Bitcoin, DogeCoin , NonFungible tokens(NFT)**
2. They are a subset of digital assets that **use cryptography to protect digital data** and **distributed ledger technology to record transactions**.
3. Crypto assets generally **operate independently of a central banks**, central authority or government.

### What are Multi-Function Crypto-Asset Intermediaries?

1. MCI is an **individual firm, or group** of affiliated firms that **offer a range of crypto-based services, products** and functions that primarily revolve around operating the trading platform. **Eg. Binance, Coinbase** .

### Revenue source of MCI's :

1. The **primary source of revenue** for these platforms are the **transaction fees generated from trading-related activities**.
2. MCI may also generate revenue from **operating a blockchain infrastructure** for which they may collect **transaction validation fees**.
3. Another source of revenue could be **proprietary trading** (trading with their own individual capital rather than that of clients, with aim of acquiring profits).

### FSB report highlights risks in MCI's:

1. **Structural Vulnerabilities** :The **collapse of FTX in November 2022** is cited as an example, highlighting **inadequate controls, operational transparency, poor disclosures, and conflicts of interest within MCI**s , **leading to collapse** .
2. **Transparency:** The report observes that most **MCI**s are generally **not transparent** about their corporate structure.

3. **Anti-Competitive Behaviour:** i.e. Having a large concentration of services in one place (they want to become one stop shop for everything). This concentration could make it **harder for new competitors** to enter the market.
4. **Shutting down of crypto Friendly banks:** highlights the widespread risk of having a significant concentration of **deposits** tied to **businesses relying on crypto assets**. Eg. **Silvergate Capital** closed **after the FTX collapse**.
5. **Dependence on Traditional financial System (Banks):**
  - (i) MCIs depend on formal banks and payment service providers for **on-ramp and off-ramp transaction services** i.e. conversion of crypto currencies to fiat currencies and vice versa .
  - (ii) It may **lead to counterparty risks** if the trading platform stops operating or if the bank fails to provide real-time operations.
  - (iii) The **banks can also be exposed to credit risks**, if the banks provide loans and credit lines to MCIs.

#### Suggestions of the FSB report :

1. **Enhance cross-border cooperation and information sharing** among local authorities, to effectively regulate and address gaps in MCIs operating globally.
2. **Regulatory frameworks need to be developed to ensure investor protection and financial stability.**
3. **Enhance transparency at MCIs**, improve corporate governance and operations ,implement measures to penalize non-compliance with transparency standards.

## 13. ILO REPORT ON OCCUPATIONAL SAFETY AND HEALTH

The International Labor Organization (ILO) released a report titled '**A Call for Safer and Healthier Working Environments.**'

- a. It is scheduled for discussion at the **23rd World Congress on Safety and Health at Work (WCSHW)** in Sydney, which is one of the largest **international conferences for work health and safety**.

#### Key Highlights of the Report

1. **Annual Deaths:**
  - a. Approximately **3 million workers globally** die each year due to **work-related accidents and diseases**.

- b. More than **63% of deaths** occur in the **Asia-Pacific region**.

#### What is the International Labor Organization (ILO)?

- a. The only **tripartite** (involving three parties) **United Nations (UN) agency**, bringing together governments, employers, and workers of 187 member States, **including India**.
- b. Established in **1919** by the **Treaty of Versailles**, received the **Nobel Peace Prize** in 1969.
  - The **Treaty of Versailles** was signed on **June 28, 1919**, by **Germany** and the **Allied Nations** (France, the United Kingdom, Russia, the United States, Italy, and Japan) to formally **end World War I**.
- c. Became the **first affiliated** (being in a close association) **specialized agency of the UN** in **1946**.

#### 2. Major Causes of Deaths:

- a. **Long working hours** (55 hours or more per week) led to the most deaths.
- b. Exposure to occupational particulate matter, gases, and fumes resulted in around **450,000 deaths**.
- c. Occupational injuries caused approximately **363,000 deaths**.

#### 3. Fatal Occupational Injury Rate (FOIR):

- a. Sectors such as **mining and quarrying, construction, and utilities** were identified as the **most hazardous** globally based on FOIR.
- b. **FOIR** is a **statistical measure quantifying (measuring) death from work-related accidents or injuries** within a specific occupational group, industry, or region over a specified period.

#### 4. Work-Related Diseases:

- a. A significant number of work-related deaths (26 lakh) are due to **work-related diseases** like **circulatory diseases, malignant neoplasms (cancerous tumors), and respiratory diseases**.
- b. **Trends in diseases** from occupational exposure **are shifting**, resulting in **increased cases of trachea, bronchus, and lung cancers** attributed to **chromium exposure**.
- c. Additionally, there is a **rise in mesothelioma cases** due to **asbestos exposure**. **Malignant**

**mesothelioma** is a **cancer of the thin tissue** (mesothelium) that lines the lung, chest wall, and abdomen.

#### 5. Decrease in Health Risks:

- a. **Deaths from exposure to asthmagens**(substance that can cause asthma) and particulate matter, gases, and fumes have **decreased by over 20%**.

#### ILO Conventions

1. 79 out of 187 member countries have ratified the **ILO Occupational Safety and Health (OSH) Convention**.
2. 62 countries have ratified the **Promotional Framework for Occupational Safety and Health Convention, 2006**.
3. **India has not ratified** both conventions.  
**Note** : Recently, after the **Uttarkashi tunnel incident**, Central Trade Unions urged the Union government to ratify the conventions.

**ILO Recommendations:**The International Labor Organization (ILO) advocates for 5 categories of **“Fundamental Principles and Rights at Work”** to ensure safety and health at work, including:

1. Freedom of association and the effective recognition of the right to collective bargaining.
2. Elimination of all forms of forced or compulsory labour.
3. Abolition of child labour.
4. Elimination of discrimination in respect of employment and occupation.
5. A safe and healthy working environment.

#### Occupational Safety and Health (OSH) Laws in India:

1. **Constitutional Framework:**In the Indian Constitution, ‘labour’ falls under the **concurrent list**(both the Union and the State Governments can make laws on the subjects).
2. **National Policy on Safety, Health, and Environment at Workplace (2009):**Recognizes a **safe and healthy working environment** as a fundamental human right.
3. **Legislative Framework:**Government of India has enacted key legislations including:
  - a. The **Factories Act, 1948**
  - b. The **Mines Act, 1952**, and **Mines Rules, 1955**
  - c. The **Dock Workers (Safety, Health, and Welfare) Act, 1986**
  - d. The **Building & Other Construction Workers (Regulations of Employment and Conditions of Service) Act, 1996**

#### 4. Occupational Safety, Health and Working Conditions Code, 2020:

- a. Introduces the creation of a **National database for Inter-State Migrant Workers**.
- b. Provides **one-day leave for every 20 days of work** if a worker has worked for 180 days.

**Conclusion:**The report highlights the urgent requirement for quick and united global efforts to tackle work-related deaths. It emphasizes the importance of putting in place strong safety measures, endorsing essential agreements, and giving priority to the fundamental rights and well-being of workers in different industries and regions.

## 14. LOGISTICS EASE ACROSS DIFFERENT STATE (LEADS) 2023

The **Ministry of Commerce & Industry** recently released the **5th edition** of the **“Logistics Ease Across Different State (LEADS) 2023”** report, serving as a guide for stakeholders in the Logistics Sector.

1. LEADS is an **indigenous data-driven index** modelled after the **Logistics Performance Index (LPI)** of the **World Bank** assessing **logistics infrastructure, services, and human resources** across 36 States and UTs.
  - (a) While the LPI completely depended on perception-based surveys, **LEADS incorporates both perception and objectivity** (judgments based on facts).
  - (b) India’s rank in **LPI 2023**: - **38th** out of 139 countries.
2. LEADS acts as a guiding mechanism for identifying interventions to **enhance logistics efficiency at the State/UT level**. It aims to foster **healthy competition among states and union territories** to improve logistics performance.

**LEADS Evaluation Criteria** : The report assesses logistics performance based on 3 key pillars:

1. Logistics Infrastructure
2. Logistics Services
3. Operating and Regulatory Environment

#### Key Highlights of LEADS 2023

1. **Achievers** : 13 states and Union Territories, including **Andhra Pradesh, Karnataka, Tamil Nadu, Chandigarh, and Gujarat**, achieved **high rankings** in the logistics index chart 2023.
  - These regions demonstrated **efficient logistical services**, contributing to **export promotion and economic growth**.

2. **Fast Movers** : Kerala, Maharashtra, Madhya Pradesh, Rajasthan, Uttarakhand, Arunachal Pradesh, and Nagaland are acknowledged as fast movers in the logistics index.
3. **Aspirers**: States and UTs in the aspirers category, such as **Goa, Odisha, West Bengal, Bihar, Chhattisgarh, Himachal Pradesh, and Jharkhand**, exhibit growth potential in their logistics ecosystem.
  - These areas are actively working to enhance their logistical capabilities.
4. **Policy Reforms**: Emphasis on vital policy reforms, including **industry status for logistics**, digital initiatives (**PM GatiShakti, Logistics Data Bank, Unified Logistics Interface Platform (ULIP), GST**), etc.
  - It called for alignment of State Logistics Policies with the National Logistics Policy.
5. **Infrastructure Growth**: Since **2014-15**, the total length of **roads and railway tracks** has **witnessed a growth** of approximately **21% and 9%** respectively since **2014-15**.
6. **Container Facilities Expansion**: The total number of **Container Freight Stations (CFS)** has seen an **18% increase**. **Inland Container Depots (ICDs)** experienced a significant **26% growth** between **FY18 to FY22**.
  - A Container Freight Station (CFS) is a warehouse that consolidates (bring together) and deconsolidates cargo before export or import.
  - An Inland Container Depot (ICD) is a dry port that stores containers and handles full and empty containers.

#### Logistics Market in India

1. **Logistics** involves planning and executing the efficient transportation and storage of goods from origin to consumption.
2. The Indian **logistics market is valued at over USD 200 billion** and employs more than **22 million people**.

#### Need for a Comprehensive Logistics Policy in India:

1. A national logistics policy is essential as the logistics cost in India is higher compared to other developed economies.
2. Reducing logistics cost is crucial for enhancing the competitiveness of Indian goods in both domestic and export markets.

3. Lower logistics cost improves efficiency across various sectors, encouraging value addition and enterprise.

#### Initiatives Related to Logistics

1. Multimodal Transportation of Goods Act, 1993
2. PM Gati Shakti Scheme
3. Multi Modal Logistics Parks
4. LEADS Report
5. Dedicated Freight Corridor
6. Sagarmala Projects
7. Bharatmala Project

## 15. BASIC ANIMAL HUSBANDRY STATISTICS 2023

1. The **Ministry for Fisheries, Animal Husbandry & Dairying** recently released the **Basic Animal Husbandry Statistics 2023** based on the **Animal Integrated Sample Survey** (March 2022- February 2023).
  - The **Integrated Sample Survey (ISS)** is a large-scale survey that **covers 15% of villages** in India. The survey's main objective is to estimate the production of **milk, eggs, wool, and meat** by state for 2022-23.
  - The survey is **conducted annually** throughout the state.
2. **Production Growth Over the Past 5 Years (2018-19 to 2022-23):**
  - (a) **Milk Production (White Revolution) : Increased by 22.81%** (230.58 MT from 187.75 MT).
    - o **Major Contribution:** Uttar Pradesh (15.72%) followed by Rajasthan (14.44%).
  - (b) **Egg Production (Silver Revolution):** Experienced a **growth of 33.31%** (138.38 billion numbers from 103.80 billion numbers).
    - o **Major Contribution:** Andhra Pradesh (20.13%) followed by Tamil Nadu (15.58%).
3. **Meat Production (Pink Revolution):** Registered a **growth of 20.39%** (9.77 MT in 2022-23 from 8.11 MT in 2018-19).
  - **Major Contribution:** Uttar Pradesh (12.20%) followed by West Bengal (11.93%).
4. **Wool Production: Decreased by 16.84%** (33.61 million kg from 40.42 million kg).
  - **Major Contribution:** Rajasthan (47.98%) followed by Jammu & Kashmir (22.55%).



## E. SCIENCE & TECHNOLOGY

### 1. TWO DEVELOPMENTS IN CHANDRAYAAN-3 MISSION

#### DEVELOPMENT 1: Successful Orbit Maneuver by Chandrayaan-3's Propulsion Module

- a. Indian Space Research Organisation (ISRO) has accomplished a significant feat with its Chandrayaan-3 mission.
- b. The propulsion module, a key component of the mission, has successfully returned to an orbit around the Earth.

#### Experiment Details:

- a. The pivotal maneuver began on October 9, 2023.
- b. The propulsion module, after completing its role in lunar orbit, was skilfully brought back to Earth's orbit.
- c. It is now operational in Earth's orbit for an estimated duration of one year.

#### Significance of the Experiment:

- a. This experiment is vital for ISRO in planning and executing journeys back to Earth, especially for future lunar missions.
- b. It highlights the importance of return and re-entry experiments in space exploration.
- c. The mission served as ISRO's inaugural demonstration of a gravity assist flyby around a celestial body other than Earth.
- d. A gravity assist flyby is a technique where a spacecraft uses the gravitational force of a planet or a celestial body to alter and accelerate its trajectory, enabling efficient space travel.
- e. This experiment was also a testing platform for new software designed for planning such complex space missions.

#### DEVELOPMENT 2: ISRO Awarded the Leif Erikson Lunar Prize

- a. ISRO's Chandrayaan-3 mission has been honored with the prestigious Leif Erikson Lunar Prize on December 19, 2023.
- b. The award was presented by the Exploration Museum in Húsavík, Iceland.

#### Chandrayaan-3 Mission Highlights:

- a. The mission is notable for achieving a historic soft landing near the Moon's South Pole.
- b. It is the **first time** any space agency has accomplished this feat at the lunar South Pole.

#### About the Leif Erikson Lunar Prize:

- a. Named after the legendary Norse explorer, Leif Erikson, this prize recognizes exceptional achievements in lunar exploration.
- b. The prize was established in 2015.

#### In-Depth Analysis:

1. **Technological Advances:** The successful orbit maneuver of the Chandrayaan-3's propulsion module demonstrates significant advancements in space technology and trajectory planning. It opens up new possibilities for future space missions, including those involving the return of spacecraft from extraterrestrial bodies.
2. **Strategic Significance for India:** These achievements place India in a prominent position in the global space exploration community. It showcases ISRO's growing capabilities in undertaking complex space missions and contributes to India's strategic interests in space technology and exploration.
3. **Inspiration for Future Research and Collaboration:** This recognition and the technological milestones achieved can inspire further research in space science and foster international collaboration in space exploration, especially in uncharted areas like the Moon's South Pole.
4. **Educational and Scientific Impact:** The success of such missions can inspire a new generation of scientists and engineers in India and globally. The data gathered from these missions can contribute significantly to our understanding of the lunar surface and space travel.
5. **Economic and Policy Implications:** These advancements may lead to the development of new policies regarding space exploration, possibly influencing budget allocations and prioritizing space research and education in India.

## 2. INDIA'S 1<sup>st</sup> X-RAY POLARIMETRY MISSION: XPOSAT

ISRO's PSLV-C58 launched XPoSat (X-ray Polarimeter Satellite) India's first dedicated polarimetry mission to study various dynamics of bright astronomical X-ray sources in extreme conditions.

Also, this is the second mission in the world, after NASA's IXPE Mission

### About X-Ray Polarimeter Satellite (XPoSat)

1. XPoSat, or X-ray Polarimeter Satellite, is ISRO's first mission focused on studying X-ray polarimetry in space.
2. It aims to analyze X-rays from various space sources like black holes and neutron stars.
3. The satellite operates in a low Earth orbit and carries two main instruments: POLIX and XSPECT.
4. The mission's **lifespan is 5 years**.
5. Two scientific payloads: **X-Ray Polarimeter (POLIX)** and **X-ray Spectroscopy and Timing (XSPECT)**

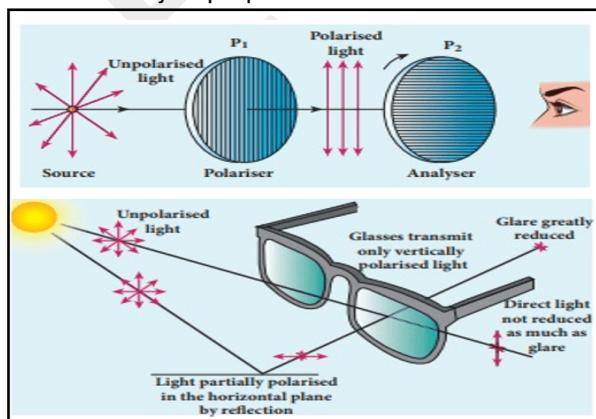
POLIX	XSPECT
1. <b>Measures polarimetry parameters</b> (degree and angle) in the medium X-ray energy range ( <b>8-30 keV</b> ).	1. Provides spectroscopic information in the energy range of 0.8-15 keV.
2. Developed by the <b>Raman Research Institute, Bengaluru</b> .	2. Developed by the <b>U.R. Rao Satellite Centre, ISRO</b> .
	3. Observes various sources, including X-ray pulsars, blackhole binaries, low-magnetic field neutron stars, Active galactic nuclei, and Magnetars.

### Objectives of the Mission

The mission aims to study how X-rays from 50 space sources vibrate using POLIX. It also plans to watch and analyze X-rays over a long time with XSPECT. Both tools will work together to learn about X-ray emissions.

### Polarisation of Light

1. Light travels as transverse electromagnetic waves.
2. Unpolarised light from sources like the sun vibrates in multiple planes.
3. **Polarisation restricts light waves' vibration** to a specific direction/plane.
4. **Polarimetry** measures polarisation characteristics, aiding astronomers in observing and measuring various object properties.



### Why X-rays?

1. X-rays, **high-frequency and high-energy electromagnetic radiation**, have short wavelengths (0.01 to 10 nanometres).
2. X-rays emanate from extremely hot objects, such as pulsars and black hole accretion disks.
3. Short X-ray wavelengths and high energy allow penetration of most materials, aiding in data collection from celestial sources.
4. X-ray telescopes in orbit collect photons from specific sky regions, providing insights into distant celestial environments' composition, temperature, and density.

X-rays are very short, high-energy light waves. They come from very hot things in space, like pulsars and black holes. Because they are so powerful, X-rays can go through many materials. This lets scientists gather data from far-away space objects.

### Significance of the Mission

Studying X-ray vibrations helps us understand more about space objects like black holes and stars. These objects have complex ways of making X-rays. By looking at X-rays from different angles, scientists can learn more about how these objects work. This includes understanding their magnetic fields, which are important in space for things like making particles

and jets. X-rays also tell us about high-energy events in space, like star explosions.

### Techniques and Challenges

Making tools to study X-rays is hard because the signals are weak and complex. Scientists need advanced methods to understand the X-ray data. They also have to deal with extra noise and calibration issues.

### Applications and Impact

- 1. Black Hole and Neutron Star Studies:** Polarimetry aids in understanding extreme conditions near black holes and neutron stars.
- 2. Active Galactic Nuclei (AGN):** Investigating X-ray polarisation helps unravel mechanisms behind AGN radiation and jet formations.
- 3. Cosmological Insights:** Polarimetry of cosmic X-ray background radiation offers insights into the universe's early stages and evolution.

### Conclusion

The XPoSat launch demonstrates India's commitment to advancing space science, specifically in X-ray astronomy. This mission contributes significantly to understanding high-energy astrophysical phenomena, marking a crucial step in India's space research and exploration.

## 3. DISCOVERY OF SIX EXOPLANETS

**Context:** Scientists found six space exoplanets around HD 110067, a bright star in the Coma Berenices star group, about 100 light-years from Earth. This was done with help from **ESA's Cheops mission and NASA's TESS.**

**NASA's TESS:** NASA's Transiting Exoplanet Survey Satellite (TESS) is a space observatory that **searches for exoplanets** around 200,000 nearby bright stars. The mission's main **goal is to find Earth-sized planets** that orbit bright stars

- 1. Size of Planets:** These space worlds are bigger than Earth but smaller than Neptune. They're called 'sub-Neptunes'.
- 2. Orbits:** Published in Nature, the study shows how these planets move, their weights, and how dense they are. They go around their star in 9 to 54 days.
- 3. What They're Made Of:** These planets are not very dense, suggesting they might have big atmospheres full of hydrogen.
- 4. Planets Moving Together:** All six planets move in a special way that keeps their forces balanced. This

means they have likely been in this way for over four billion years.

- 5. Why It's Important:** HD 110067 is the brightest star known with more than four planets moving in front of it. Studying this helps us learn about sub-Neptunes and how such planets form.
- 6. Learning About Space Worlds:** Finding planets outside our solar system helps us know more about the universe and if there's life elsewhere.
- 7. Why Sub-Neptunes Matter:** These planets are found often around stars like our Sun. But we don't know much about what they're made of or how they came to be.
- 8. Tech in Space Study:** Using big telescopes and satellites like **TESS** and **CHEOPS** shows how technology is key to exploring space.

### Conclusion:

The finding of six planets around HD 110067 is a big step in space exploration. It gives us new ideas about sub-Neptune planets and shows how technology helps us understand the universe better.

## 4. PRITHVI SCHEME BY MINISTRY OF EARTH SCIENCES

**Context:** Union Cabinet Approves Comprehensive **PRITHvi Vigyan(PRITHVI) Scheme** by Ministry of Earth Sciences

### Essential Details

- 1. Objective:** To comprehensively covering Earth System Science's (ESS)**5 key elements: Atmosphere, Hydrosphere, Geosphere, Cryosphere, and Biosphere.**
- 2. Duration:** 2021-2026
- 3. Funding:** Rs. 4,797 crore
- 4. Sanctioned By:** Union Cabinet, led by PM Narendra Modi

### How PRITHVI Schemecovering ESS's 5 Key Elements?

- 1. ACROSS(Atmosphere & Climate Research-Modelling Observing Systems & Services):** Concentrates on developing dynamic models and advanced forecasting services.
- 2. O-SMART(Ocean Services, Modelling Application, Resources and Technology):** Focuses on technological advancements for ocean-related applications, services, and marine environmental research.

**3. PACER (Polar Science and Cryosphere Research):**

Encompasses research programs in the Antarctic, Indian Arctic, Southern Ocean, and studies of the Cryosphere and Climate.

**4. SAGE (Seismology and Geosciences):** Involves monitoring seismic activity, micro-zonation projects, and facilities for studying geochronology.

**5. REACHOUT (Research, Education, Training and Outreach):** Aims for R&D in Earth System Science, skill enhancement, and public awareness initiatives.

**Role of the Ministry of Earth Sciences (MoES):**

1. Bridging scientific knowledge with societal services in areas such as **weather, climate, oceanography, hydrology, seismology, and natural disasters.**
2. Focusing on the sustainable exploration of marine resources and research in Earth's polar regions.

**Significance:**

1. **Holistic Approach:** Integrates all aspects of Earth system sciences for better understanding and predictive capabilities.
2. **Societal and Environmental Benefits:** Strives for improved weather forecasting, effective disaster management, and responsible utilization of resources.
3. **Research and Innovation:** Promotes collaborative R&D across MoES institutes to address significant challenges in various Earth sciences.

**Conclusion:**

The **PRITHVI** scheme marks a significant initiative to unify various segments of Earth System Sciences in India, aiming to convert scientific research into actionable solutions for societal, environmental, and economic well-being.

## 5. INSPACE LAUNCHES FUNDING PROGRAM FOR STARTUPS USING SPACE TECHNOLOGY

**Context:**

1. The Indian National Space Promotion and Authorisation Centre (**INSPACE**) has started a funding program to help new companies **focusing on city development and disaster management.**
2. These companies can get **financial help of up to 1 crore Rupees** each. This program is started together with **ISRO's National Remote Sensing Centre (NRSC)** to support companies using space technology.

**Background:**

On March 14, 2023, **INSPACE** introduced this funding program for space startups with great ideas but needing initial support. It includes:

1. **Financial Help:** Up to **1 crore Rupees** in different stages, including a possible 40% advance.
2. **Guidance and Training:** Help from experienced professionals and special training to improve skills and understand the space industry.
3. **Networking:** Making connections with big companies and potential partners for better understanding and market entry.

**Main Focus Areas:**

**INSPACE** has chosen specific areas where space technology can be really helpful. These are:

1. **City Development:** Using **satellite data for better city planning**, watching over infrastructure, and managing resources.
2. **Disaster Management:** Improving **warning systems for disasters**, tracking them as they happen, and helping in quick and effective responses.

**Supporting these startups is important for:**

1. **Competing Globally:** Aiming to compete with big companies like **SpaceX** and **Blue Origin.**
2. **Growing India's Space Economy:** Increasing India's part in the global space market.
3. **Reducing Dependency on Imports:** Relying less on foreign parts (**imports**) for space technology.
4. **Supporting ISRO:** Let ISRO focus more on research and big space missions.
5. **Improving Lives:** Using space technology for **better farming, disaster management, and communication.**
6. **Increasing Global Influence:** Strengthening **India's position** in the world and as a counter to China.

**Beyond Funding Creating a Supportive Environment:**

To help these startups, India is also doing things like:

1. **Indian Space Policy 2023:** Allowing private companies in all space activities.
2. **FDI Regulations:** Making it easier for foreign investments in satellites.
3. **Tax Benefits:** No GST on satellite launches.
4. **Atal Innovation Mission:** Programs for young people and new space tech companies.
5. **Mentorship Network:** Guidance from retired ISRO professionals.

**Conclusion**

Starting this funding program is a **big step in growing India's space technology** sector. By providing both money and overall support, India aims to use space technology to solve big problems, improve lives, and become a leader in space technology. This is just the start of an exciting journey for Indian space tech companies.

## 6. GPAI SUMMIT 2023: NEW DELHI DECLARATION

The Global Partnership on Artificial Intelligence (GPAI), an alliance of 29 member countries, has without opposition adopted the New Delhi declaration.

**More on the news**

1. The declaration underscored the requirement of finding a balance between the innovation and the risks associated with AI systems.
2. It's the first group meeting after generative AI platforms like ChatGPT and Google Bard became popular and brought conversations around AI into the mainstream.

**Key Highlights of the New Delhi Declaration**

1. **4 Different Themes of Four Sessions**
  - a. Responsible AI
  - b. Data governance
  - c. Future of work, and
  - d. Innovation and commercialization
2. The PM of India discussed the national AI portal, highlighted the AIRAWAT initiative and raised concerns over the potential misuse of deep fake technology.
3. The Prime Minister suggested using AI to make digital services available in local languages to increase digital inclusion.
4. YUVAi was featured at the GPAI Summit, with winners showcasing their models and solutions.
5. The PM of India flagged the dual potential of AI. While it can be the 21st century's biggest development tool, it can also potentially play a very destructive role and call for a global framework that will provide guardrails and ensure its responsible use.

**Significant outcome of the New Delhi Declaration**

1. The declaration acknowledged the need to utilise new opportunities and mitigate the risks arising from the development and deployment of AI. This includes:

- a. Concerns around misinformation and disinformation
  - b. Unemployment
  - c. Lack of transparency and fairness
  - d. Protection of intellectual property and personal data, and
  - e. Threats to human rights and democratic values.
2. It emphasises the importance of fostering trust, transparency, accountability, and inclusiveness in AI. And, further dialogue on safe and trusted AI governance Recognizes the potential of AI to contribute to the United Nations Sustainable Development Goals (SDG) and address global challenges.
  3. Declaration highlights that GPAI will be an inclusive movement, and will focus on including countries from the Global South.
    - a. To ensure the equitable access and benefits sharing of AI, its platforms and solutions to all of the people and societies.
    - b. Also, it encourages international cooperation and coordination on AI research, innovation, and collaborative AI (*an approach where humans and AI work together to achieve results that couldn't typically be achieved by either alone*)
  4. Endorses India's proposal to establish and maintain a Global Digital Public Infrastructure Repository (GDPIR) to share digital public goods
    - a. GDPIR was established under the Ministry of Electronics and Information Technology (MeitY), to serve as an extensive repository, consolidating crucial insights and knowledge from both G20 members and guest nations.
  5. GPAI members agreed to support AI innovation in the agriculture sector as a new "thematic priority".
    - a. Importance of Agriculture Sector as new a theme
      - i. India was pushing for the inclusion of agriculture as a priority sector in AI innovation.
      - ii. Essential for implementing resilient agricultural practices that increase productivity and production.
      - iii. Development and access to risk proportionate AI is essential for ensuring sustainable food production, and strengthening capacity for mitigation and adaptation to climate change.

**Significance of the New Delhi Declaration for India****1. Win for India**

- a. India has always debated for a collaborative approach towards building AI systems to push its model of digital public infrastructure (DPI) across the world.

**2. Push for the Sovereign AI systems**

- a. Access to computing capabilities from member nations will also boost New Delhi's plans of building a sovereign AI system.
- b. Sovereign AI systems are crucial for countering dominance from a handful of foreign companies in the space.

**What is Global Partnership on Artificial Intelligence (GPAI)**

1. It is an international initiative established to guide the responsible development and use of AI in a manner that respects human rights and the shared democratic values of its members.
2. First proposed by Canada and France at the 2018 44th G7 summit, and officially launched in (June) 2020.
3. Started with 15 member countries, today GPAI has grown into an alliance of 29 member countries.
  - a. It includes countries like India, United State, UK, France, Japan, Canada, etc.
  - b. China, a major tech superpower, is not part of the multilateral grouping.
4. GPAI is hosted by the Organisation for Economic Co-operation and Development (OECD).

**5. Objectives of GPAI:**

- a. Bridge the gap between theory and practice on AI by supporting the latest and most advanced research on AI-related priorities.
- b. Brings together engaged minds and expertise from science, industry, civil society, governments, international organisations and academia to foster international cooperation.

**What is the Bletchley Declaration ?**

1. Signed at UK AI Safety Summit focused on AI related safety risks.
2. Aims to enhance global collaboration on artificial intelligence (AI) safety.
3. It has a two-fold focus:
  - a. Identifying shared AI-related risks and,
  - b. Enhancing scientific understanding of these risks, as well as creating cross-country policies to address them.
4. India has also signed the declaration.

**India's efforts and attempt in AI domain****1. India's AI Mission**

- a. PM Modi, at the GPAI Summit 2023, announced that India will launch an AI mission to develop its own "sovereign AI"
- b. The aim of this mission will be to establish sufficient AI compute power in the country and offer compute-as-a-service to India's startups.
- c. Under this mission, AI applications in agriculture, healthcare & education-related sectors will be promoted.
- d. Capacity building will be done both within the government and through a public-private partnership (PPP) model.
- e. In total, the country is looking :
  - i. To build a compute capacity of anywhere between 10,000 GPUs (graphic processing units) and 30,000 GPUs under the PPP model, and
  - ii. An additional 1,000-2,000 GPUs through the PSU Centre for Development of Advanced Computing (C-DAC).
- f. The government is also exploring various incentive structures for private companies to set up computing centers in the country, ranging from
  - i. A capital expenditure subsidy model which has been employed under the semiconductor scheme,
  - ii. A model where companies can be incentivised depending on their operational expenses, to offer them a "usage" fee.
- g. Significance of Building Computing Capacity
  - i. Apart from algorithmic innovation and datasets, computing capacity or compute is among the most important elements of building a large AI system.
  - ii. It is also one of the most difficult elements to procure for smaller businesses looking to train and build such AI systems.
  - iii. The government's idea is to create a digital public infrastructure (DPI) out of the GPU assembly it sets up.

**2. India Datasets platform**

- a. Apart from building computing capacities, the government is also working on building datasets.
- b. Earlier, the MeitY released a draft of the National Data Governance Framework Policy under which it proposed the creation of an India Datasets platform.
- c. The platform will consist of non-personal and anonymised datasets from Central government entities that have collected data from Indian citizens or those in India.
- d. The idea is that the non-personal data housed within this programme would be accessible.

**3. AIRAWAT**

- a. A cloud computing platform called AIRAWAT (Artificial Intelligence Research, Analytics and Knowledge Assimilation Platform) proposed by NITI Aayog in 2019.
- b. The move to create a cloud computing platform is part of the government’s goal of making India a pioneer amongst emerging economies with regard to AI and transforming different sectors.

**4. YUVA Ai Initiative**

- a. The National e-Governance Division (NeGD) partnered with Intel India to launch the ‘YUVAi-Youth for Unnati and Vikas with AI’ program.
- b. The aim is to foster a deeper understanding of AI, equip school students from classes 8 to 12 across the nation with relevant mindset and skill sets, and empower them to become human-centric designers and users of AI.

**7. PROJECT Q\* BY OpenAI**

**Introduction to Project Q\***

1. **What is Project Q\*?** It’s an advanced research initiative in **artificial intelligence (AI) by OpenAI**, aiming to create AI that’s safe and useful for everyone.
2. **Goal:** To develop **artificial general intelligence (AGI)**, which is AI that’s as smart and All-round as a human.
3. **What are the abilities of AGI?** The new AI model, which hasn’t been fully tested by others, can do some math problems. It’s different from a calculator because it can learn, understand, and use ideas in many ways, not just do simple math.

**Important Aspects of Project Q\***

1. **Human-Like Reasoning:** Project Q\* is designed to think and solve problems like humans. This means it can understand complex issues and come up with solutions that go beyond what normal AI can do.
2. **Creating New Content:** It’s skilled at making new and creative types of text, translating languages, and producing various forms of creative work. This shows its potential use in areas like art, learning, and advertising.
3. **Advanced Learning Techniques:** Project Q\* uses what’s called deep learning, a type of AI that learns from large amounts of data. This lets it improve over time, potentially leading to more breakthroughs in the future.

**Comparison of Computers, Supercomputers, and Quantum Computers**

Feature	Computers	Supercomputers	Quantum Computers
<b>Technology</b>	Transistors	Advanced chip architectures, parallel processing	Qubits (quantum bits) and quantum logic gates
<b>Information Representation</b>	Bits (binary digits with values 0 or 1)	Bits	Qubits (can be 0, 1, or both simultaneously)
<b>Strengths</b>	Versatile, affordable, handle everyday tasks efficiently	Solve complex scientific and engineering problems with massive datasets	Revolutionize fields like materials science, drug discovery, and financial modeling
<b>Applications</b>	Browsing, word processing, gaming, entertainment	Weather forecasting, climate modeling, protein folding, drug discovery, aerospace engineering	Cryptography, materials science, financial modeling, artificial intelligence

**Issues and Debates Around Project Q\***

1. **Potential Danger to People:** There's worry that Project Q\* advanced thinking and learning abilities could be risky if not managed properly. This risk could lead to unexpected harmful outcomes.
2. **Speeding Up Science:** While Project Q\* could help solve tough scientific problems quickly, this fast progress also brings up concerns about how such powerful tech might be used wrongly, and the moral questions it raises.
3. **Replacing Human Jobs:** As AI like Project Q\* gets better, it might start doing jobs that people do now, which could lead to fewer jobs for humans and change the economy.

**Conclusion:**

Ongoing Research: Information about Project Q\* is still being updated as more research is conducted. Its full capabilities and impacts are yet to be fully understood.

**8. GOOGLE GEMINI**

In December 2023, **Google** introduced a new kind of **Artificial Intelligence (AI)** called **Gemini**. This AI is very advanced and can do many things, making it a big achievement for Google.

**Key Features:**

1. **Multimodal:** Gemini is different from older AI because it can understand and work with different kinds of information like text, code, sounds, pictures, and videos. This makes it useful for many things and improves how people can use it.
2. **Multi-Scale:** Gemini has three versions - **Ultra, Pro, and Nano**. Ultra can do complex tasks with lots of data, Pro is good for everyday use, and **Nano is used in devices like the Pixel 8 Pro for things like summarizing audio**.
3. **Advanced Skills:** Gemini can understand and create complex computer code in many programming languages. It's also good at solving problems and might help with new discoveries in science.

**Applications and Implications:**

1. **Better Search and Assistants:** Gemini could make search engines and virtual assistants smarter, giving better and more relevant results to what people ask.
2. **Creating Content:** Gemini can **write, translate** languages, and be creative. This is useful for art,

teaching, and advertising, like making AI stories, personalized learning tools, and ads that target specific people.

3. **Helping Science:** Gemini's skills in solving problems and learning could lead to new discoveries in tough scientific topics, speeding up research in many areas.

**Challenges and Concerns:**

1. **Ethical Issues:** With AI like Gemini, there are worries about keeping data private, avoiding bias, and not using AI in bad ways. It's important to develop AI responsibly and have strong rules to avoid problems.
2. **Jobs:** As AI does more tasks, some jobs might change or disappear. This could cause **economic and social problems**, so teaching new skills to people is important.
3. **Transparency:** It's sometimes hard to understand how AI like Gemini makes decisions. Being clear and easy to understand is important for trust and safety in using AI.

**Conclusion:**

Google Gemini is a big step in AI technology with many possible uses and advancements in science. However, it's important to think about ethical issues, how it affects jobs, and being transparent.

**9. GAJRAJ SURAKSHA**

In an attempt to prevent the Elephant- Train collisions, Indian Railways has introduced a cutting-edge technology named 'Gajraj'.

**About**

1. 'Gajraj', is an indigenous software utilising optical fibre cable (OFC) to alert the locomotive pilot of any suspicious activity on or near rail tracks.

**Functionality**

1. Using an AI based algorithm and a network of sensitive OFC, the software triggers alerts upon detecting any questionable movement within 200 metres of the tracks.
  - a. **OFC Role** :Vibrations caused by elephant movement alongside the rails create variations in the optical signals carried by the OFC, signalling a potential threat to the locomotive pilot.
  - b. **AI Algorithm Role** :The software identifies these signal disruptions as signs of movement, specifically detecting the

presence and distinguishing between elephants, other animals, and humans.

- i. The software has the capability to discern the type of movement and the number of animals present at a given site.
2. Alerts generated by the system reach the locomotive pilot, control room personnel, and the section station master upon detecting any movement.

### Optical Fibre

#### 1. What is Optical Fibre

- a. These are made of thin, cylindrical strands (a thin thread of something) of glass with a diameter close to the diameter of human hair.

#### 2. Working Principle

- a. Light signals are transmitted through the core of the optical fibre using the principle of total internal reflection (TIR).
  - i. **TIR** : The phenomenon which occurs when the light rays travel from a more optically denser medium to a less optically denser medium.

#### 3. Applications

- a. **Telecommunication Application** : Carry information, such as text, images, voices, videos, telephone calls, and anything that can be encoded as digital information, across large distances almost at the speed of light.
- b. **Health Application** : Used in endoscopes and other medical devices.

### Advantages Of Optical Fibres

1. **High Strength** :Strong, light, and flexible, and ideal for being buried underground, drawn underwater, or bent around a spool.
2. **High Bandwidth**: Optical fibres can transmit a large amount of data over long distances.
3. **Low Signal Loss**: Optical fibres experience less signal loss compared to traditional copper cables.
4. **Immunity to Electromagnetic Interference (EMI)**: Since they transmit light, optical fibres are not susceptible to electromagnetic interference
  - a. Electromagnetic interference : Unwanted noise or interference in an electrical path or circuit caused by an outside source.
5. **Security**: It's difficult to tap into an optical fibre without disrupting the signal.

## 10. ANTHROBOTS: TINY ROBOTS MADE OF HUMAN CELLS

Scientists have **developed** tiny robots made of human cells that are able to repair damaged neural tissue.

### What are the Anthrobots ?

Anthrobots are **new types of robots** made from human throat cells. They can build themselves and help **fix nerve cells**. This is a big step in making robots with living cells.

### Key Points:

#### 1. Making and Features:

**Using Human Cells:** Anthrobots are made from cells of the human throat, giving them special abilities.

**Building Themselves:** These robots can make different shapes and sizes on their own.

#### 2. Important Discoveries and Health Uses:

**Lab Success:** Scientists from Tufts University and Harvard's Wyss Institute made these anthrobots. They can move and help nerve cells heal in labs.

**Possible Health Uses:** They could be used for fixing body parts, treating diseases, and helping recovery because they can heal.

#### 3. Better than Xenobots:

**Difference:** Anthrobots are different because they are made from human cells, while **xenobots** come from frog cells.

**Better for Health:** Anthrobots are more promising for health uses than xenobots.

### About Xenobots:

**Xenobots** are tiny living machines from **frog cells**. Scientists use computer programs to design them to do specific jobs. They can fix themselves and are used in medicine and cleaning the environment.

### About the Throat (Trachea):

The throat or trachea is a tube that lets air go to the lungs. It's made of rings of cartilage, muscle, and tissue, and has cells that catch and move out dirt and germs.

### Human Throat Cells:

These cells in the throat help keep our lungs clean by catching and moving out dust and germs. They are important for studying how cells work and for making new body parts in medicine.

**About Biorobots:**

Biorobots mix living things with robots. They copy how nature works. They are used in health for surgeries and drugs, for exploring hard-to-reach places, and in factories for their flexibility and safety.

**Conclusion:**

Anthrobots are a big achievement in using living cells to make robots. They could change medicine, help build sustainable things, and explore new places, showing how far we've come in combining biology and engineering.

## 11. THE DEATH OF INDIA'S FIRST POMPE DISEASE PATIENT

The death of the first person in India with Pompe disease shows the difficulties of this uncommon genetic illness.

**Understanding Pompe Disease:**

- 1. What It Is:** Pompe Disease, also known as **Glycogen Storage Disease Type II**, is a rare genetic illness caused by not having enough of the enzyme **Acid alpha-glucosidase (GAA)**.
- 2. Role of GAA:** This enzyme is needed to change glycogen into glucose inside cell parts called lysosomes.
- 3. How Common It Is:** It's thought to happen in **1 out of every 40,000 to 300,000 births**, affecting people of different backgrounds and ages.

**Symptoms:**

- 1. Weak Muscles:** Affects muscles of the body and organs, making it hard to move and do daily tasks.
- 2. Slower Motor Skills:** Kids might be slow to learn how to sit or walk.
- 3. Bone Problems:** Weak muscles over time can cause stiff joints and changes in bone shape.
- 4. Breathing Issues:** Weak muscles for breathing can lead to breathlessness and serious breathing problems.
- 5. Heart Muscle Issue:** The walls of the heart muscle get thicker, making it hard for the heart to work properly.

**Treatment:**

- 1. Replacing the Enzyme:** Giving patients the **missing enzyme** to lower glycogen. It helps with symptoms but **doesn't cure** the disease.

**About Rare Diseases:**

- 1. What They Are Like:** Rare diseases have different symptoms and affect people in different ways.

- 2. The Struggle:** They often don't get enough medical knowledge, research, proper care, and are usually not focused on healthcare.
- 3. Wider Effects:** Rare diseases impact not just the patients but also their families and the wider community.
- 4. Making Medicines for Rare Diseases:** Realizing how important it is to create drugs for rare diseases.

**Importance:**

The death of India's first person with Pompe disease shows the need for more knowledge, study, and help for rare diseases in India.

**Conclusion**

The recent loss of India's first Pompe disease patient stresses the need for more knowledge, research, and healthcare help for rare diseases. This event shows the big challenges faced by people with such conditions, underlining the need for effective treatments and support to better the lives of those affected and their families.

## 12. NOMA IDENTIFIED AS A NEGLECTED DISEASE IN TROPICAL AREAS BY WHO

**Background:**

The World Health Organization (WHO) now **officially** lists Noma as a neglected disease found in tropical areas.

**About Diseases Neglected in Tropical Areas (NTDs):**

- 1. What They Are:** These are illnesses that mostly affect poor areas in hot, humid climates.
- 2. Cause:** Caused by the bacteria **spirochete Borrelia vincenti**, typically found in the mouth.
- 3. Their Effect:** They impact over 1 billion people, leading to disabilities and sometimes death.
- 4. Types:** There are many kinds, caused by different germs and spread in various ways.
- 5. Who Suffers Most:** Mostly the poorest and ignored people, including women and kids.
- 6. Managing and Getting Rid of Them:** We can control them with low cost methods and better cleanliness.
- 7. Worldwide Actions:** WHO wants to manage and get rid of NTDs by 2030.

**About Noma:**

- 1. What It Is:** A serious infection that harms the face, causing a lot of damage and high death rates if not treated.

2. **Signs:** Starts with a sore in the mouth, then **destroys tissue and bone**, causing pain, fever, and trouble eating.
3. **Effects on Survivors:** May cause **long-lasting marks** on the body, physical challenges, and lead to people being avoided or left out by others in the community.
4. **Who Gets It:** Mainly kids 2 to 6 years old in poor areas with not enough food and healthcare.
5. **Stopping It:** Includes **better living** conditions, food, **vaccines**, dental care, and cleanliness.
6. **Cure:** Uses **antibiotics**, treating wounds, easing pain, and sometimes surgery.

**Immediate Needs:**

1. **Information and Knowing About It:** Need more accurate information and for health workers and people to know more about it.
2. **Study and Action:** Important for understanding it better, effective medicines, and ways to prevent it.

**Conclusion:**

By listing Noma as an NTD, it shows how important it is to tackle this health issue. We need more global work and resources to fight Noma, which is part of the aim for health care for everyone.

**13. ELECTRONIC CIGARETTES: CALL TO ACTION BY WHO**

Recently, the World Health Organization (WHO) highlighted that urgent and decisive action to prevent the uptake of e-cigarettes, should be taken to protect children, as well as non-smokers and minimize health harms to the population.

**What are e-Cigarettes?**

1. e-Cigarettes are battery powered devices that work by heating a liquid into an aerosol (a suspension of particles or droplets in the air) that the user inhales and exhales.
2. The e-cigarette liquid typically contains nicotine, propylene glycol, glycerin, flavorings, and other chemicals.
3. There are many different types of e-cigarettes in use, also known as
  - a. Electronic nicotine delivery systems (ENDS) and,
  - b. Sometimes electronic non-nicotine delivery systems (ENNDS).

**What are the Arguments in Favour of e-Cigarettes?**

1. **Harm Reduction compared to the conventional cigarettes**

- a. They contain nicotine but lack many of the harmful carcinogens present in conventional cigarettes. As a result, they are often seen as a safer alternative.

**2. Economic Revenue:**

- a. Legalizing and regulating e-cigarettes could generate substantial tax revenue for governments. At the same time ensuring, controlled and monitored usage.

**3. Consumer Choice:**

- a. Supporters argue for the importance of consumer choice and access to alternatives.
  - i. They believe that adult smokers should have the option to choose less harmful nicotine delivery systems if they find traditional smoking cessation methods ineffective.

**Present Legal restrictions on e-cigarettes**

1. The Prohibition of Electronic Cigarettes (Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement) Act, (PECA) 2019 banned e-cigarettes in India.
2. The act defines electronic cigarette or e-cigarette (under Section 3) as following:
  - a. An electronic device that heats a substance, which may or may not contain nicotine and flavors, to create an aerosol for inhalation.
  - b. It includes all forms of Electronic Nicotine Delivery Systems, Heat Not Burn Products, e-Hookah, etc.
  - c. However, it does not include any product licensed under the Drugs and Cosmetics Act, 1940.
  - d. They are sometimes called “mods,” “vape pens,” “vapes,” “tank systems,” and “electronic nicotine delivery systems (ENDS).”

**Concern raised by the WHO regarding e-cigarettes**

**1. Health Risks:**

- a. E-cigarette emissions typically contain nicotine and other toxic substances that are harmful to both users and non-users who are exposed to the aerosols.
  - i. Their use can increase the risk of heart disease and lung disorders.
  - ii. Nicotine exposure in pregnant women can limit the brain development of the fetus.

**2. Enforcement issues:**

- a. Despite a ban on electronic cigarettes by the government of India in 2019, they are easily available in tobacco shops and online.

**3. Promote addiction among youth:**

- a. E-cigarettes have attractive flavoring and sleek designs that attract the younger generation to nicotine addiction.

**4. Less Regulated:**

- a. Around 88 countries have no minimum age at which e-cigarettes can be bought, and
- b. 74 countries have no regulations in place for these harmful products.

**5. Aggressively marketed:**

- a. E-cigarettes are allowed in the open market and target children through social media and influencers.

**6. Ineffectiveness for Smoking Cessation:**

- a. They are presented as devices to help quit smoking, however, the evidence on their use as a cessation aid is inconclusive.

**7. Rising Usage among Youth:**

- a. Children 13–15-years old are using e-cigarettes at rates higher than adults in all WHO regions.
- b. International Data
  - i. In Canada, the rate of e-cigarette use among 16–19-year-olds has doubled between 2017–2022
  - ii. In the UK the number of young users has tripled in the past three years.

**Harmful substance found in E-Cigarettes : Nicotine**

1. Nicotine is a plant alkaloid that contains nitrogen, which is found in several types of plants, including the tobacco plant and can also be produced synthetically.
2. Nicotine is both a sedative and a stimulant.
3. Nicotine is used as a direct substance in e-cigarettes and the content ranges up to 36 mg/mL.
  - a. Although regular cigarettes too have nicotine, it ranges between 1.2 to 1.4 mg/mL.

**Suggested Measures****1. By WHO:**

- a. Not to sold e-cigarettes as consumer Products
  - i. Governments should not permit the sale of e-cigarettes as consumer products.

## b. Control Access

- i. Any government pursuing a smoking cessation strategy using e-cigarettes must control the condition of e-cigarette access.

**2. Other Measures**

- a. Strict implementation of the ban by authorities and taking punitive action against local vendors and online sellers to prevent the illicit selling of e-cigarettes.
- b. Raising Awareness
  - i. E.g. India's recent public notice focuses on raising awareness about the banned product, as well as explaining the details of PECA 2019 provisions, etc.

**About WHO**

1. World Health Organization (WHO), the United Nations' specialized agency for Health was founded in 1948.

- a. Began functioning on April 7, 1948 – a date now being celebrated every year as World Health Day.

**2. Headquarters :** Geneva, Switzerland.

3. There are 194 Member States, 150 country offices, six regional offices.

4. It is an intergovernmental organization and works in collaboration with its member states usually through the Ministries of Health.

5. The WHO provides leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

**6. What are the Objectives?**

- a. To act as the directing and coordinating authority on international health work.
- b. To establish and maintain effective collaboration with the United Nations, specialized agencies, governmental health administrations, professional groups and such other organizations as may be deemed appropriate.
- c. To provide assistance to the Governments, upon request, in strengthening health services.

**7. How is it Governed?**

- a. World Health Assembly
    - i. World Health Assembly (WHA) is WHO's decision-making body attended by delegations from all of WHO's member states.
    - ii. It is held yearly at the headquarters of WHO, i.e., Geneva, Switzerland.
    - iii. Specific health agenda prepared by the Executive Board remains the focus of this assembly.
  - b. Functions
    - i. The Health Assembly determines the policies of the Organization.
    - ii. It supervises the financial policies of the Organization and reviews and approves the budget.
    - iii. It reports to the Economic and Social Council in accordance with any agreement between the Organization and the United Nations.
  - c. The Secretariat
    - i. The Secretariat comprises the Director-General and such technical and administrative staff as the Organization may require.
    - ii. The Director-General is appointed by the Health Assembly on the nomination of the Board on such terms as the Health Assembly may determine.
8. Membership and Associate Membership
- a. Members of the United Nations may become Members of the Organization.
  - b. Territories or groups of territories which are not responsible for the conduct of their international relations may be admitted as Associate Members by the Health Assembly.

**14. NEW COVID VARIANT: PIROLA & JN.1**

The World Health Organization (WHO) has classified the JN.1 sub-variant of Covid-19 as a "variant of interest" separate from its ancestor, BA.2.86, commonly known as Pirola.

**Background**

1. The world is facing another wave of COVID-19 infections as a new variant, called "Pirola" or BA.2.86, spreads rapidly across the globe (predominantly circulating in the US & UK).

- a. The **first cases** of this variant were **detected** in the United States **in September 2022**.
- b. The first case globally was detected as early as January 2024.

**About Pirola Variant (BA.2.86)**

1. Named after a large asteroid that hangs out near Jupiter.
2. Pirola, is an Omicron subvariant that causes great concern because it has been found to contain a large number of mutations.

**About JN.1**

1. It is a sub-variant of Omicron, and also known as the Mu variant or B.1.621.
  - a. Evolved through some genetic changes from the Omicron variant to its current genetic changes.
2. JN.1 possesses a single mutation in its spike protein, which might potentially modify some of the virus's characteristics. However, initial studies suggest that this mutation could offer more immune evasion.
3. JN.1 is a descendent of BA 2.86 also known as Pirola.
  - a. It has one extra spike protein mutation compared to Pirola.
  - b. Even though JN.1 only has one extra spike protein (protein that forms a large structure known as a spike projecting from the surface of an enveloped virus) researchers have been keeping an eye on it because Pirola has more than 30 mutations.
  - c. Mutations on the spike protein of Sars-CoV-2 matter because they are the ones that attach to receptors on a human cell and allow the virus to enter it.

**What does 'Variants of Interest' (VOI) and 'Variants of Concerns' mean?****1. Variants of Interest (VOI)**

- a. Variants that are less effectively neutralized in labs by antibodies from infection or vaccination and have a potential to spread.
- b. **Criteria for Designation:**
  - i. If it shows a growth advantage over other circulating variants — meaning its proportion increases along with any increase in the total number of cases.
  - ii. If it is predicted to or known to change characteristics such as transmissibility, virulence, antibody evasion, or susceptibility to therapies and diagnostics.

**c. What after Designation:**

- i. WHO monitors and tracks its global spread. The body also keeps assessing its public health risk and facilitates sharing of isolates.
- ii. Member states have to report cases of VOI, monitor it, and conduct field investigations to study the potential impact of the variant.

**2. 'Variants of Concerns'**

- a. Variants that result in increased transmission, severe disease leading to hospitalisation, and reduce effectiveness of vaccines.

**Can it lead to a surge, or more severe symptoms?**

1. There is no evidence to suggest that JN.1 can cause worse symptoms or spread faster than the variants already in circulation.

**15. METHOTREXATE (MTX) AND INNOVATION IN ITS DETECTION**

A new highly fluorescent material with exceptional optical properties has been developed using phosphorene, cystine, and gold (Ph-Cys-Au) which can be used for detecting overdosage of anti-cancer drug MTX.

**Significance of the Discovery**

1. The materials are biocompatible with a good detection limit.
2. Provides a new time efficient method as traditional procedures for detecting overdosage of MTX are relatively more time consuming and involve complex instrumentation.

**Need of Overdosage Detection**

1. The MTX value of more than 10 µM ( micrometres) in blood plasma is hazardous if it remains in the system for more than 10 hours.
  - a. Resulting in poisoning effects on the lungs, ulcers of the stomach, and heart stroke.

**About Phosphorene, Cystine, and gold (Ph-Cys-Au)**

1. Ph-Cys-Au has exceptional optical properties and thus can be used as a visual sensing platform for detecting the anti-cancer drug MTX overdose.
  - a. **Phosphorene** is a two-dimensional material composed of phosphorus atoms and it is primarily studied for its electronic and optoelectronic properties.
  - b. **Cystine** is a non-essential amino acid (meaning the body can synthesise it). It is

essential for the proper folding and stability of many proteins, including enzymes and structural proteins.

- c. **Gold nanoparticles** are employed in medical imaging techniques, such as computed tomography (CT) scans. Their ability to absorb X-rays makes them useful as contrast agents, enhancing the visibility of specific tissues and structures.

**About Methotrexate (MTX)**

1. **Application:** It is commonly used in chemotherapy to treat certain types of cancers including leukaemia, lymphoma, and breast cancer.
2. **Administration of MTX in body:** Methotrexate can be taken orally or administered by injection, depending on the specific condition being treated.
3. **Side Effects:** The MTX value of more than 10 µM in blood plasma is hazardous
4. **Challenge:**
  - a. MTX is highly expensive, and the detection is complex.
5. **Precautions:**
  - a. Regular monitoring of blood counts and liver function is often necessary during Methotrexate treatment.
  - b. Folic acid supplementation is often prescribed alongside Methotrexate to help mitigate some of its side effects.

**Working Mechanism of MTX**

1. It works by inhibiting the activity of an enzyme called dihydrofolate reductase, which is essential for the synthesis of DNA, RNA, and proteins.
2. This interference hampers the growth of cancer cells and suppresses the immune system in autoimmune conditions.

**16. PROJECT KUIPER: WORLDWIDE INTERNET SERVICE**

**Context:**

Amazon's Project Kuiper is working with SpaceX to send satellites using **Falcon 9 rockets**. This project's goal is to **offer worldwide internet service**.

**Project Kuiper in Detail:**

1. **Start:** Began in 2019 by Amazon.
2. **Purpose:** To provide the internet worldwide with fast response times, especially in areas with poor internet service.
3. **Name's Source:** Named after the Kuiper Belt, a region far in our Solar System.

**Main Points:**

1. **Satellite Network:** Aims to set up 3,236 satellites in a **low Earth orbit (LEO)** in five phases.
2. **Permission from FCC:** Got the go-ahead from the Federal Communications Commission.
3. **Timelines for Launch:** 50% of satellites working by July 30, 2026, and the rest by July 30, 2029.
4. **Funds:** More than \$10 billion put aside for this project.
5. **Test Satellites:** Launched two test satellites, **KuiperSat-1** and **KuiperSat-2**, in October 2023.

**Plans for Operation:**

1. **Worldwide Internet:** Plans to set up all satellites over ten years for internet everywhere.
2. **Antenna Design:** Introducing a less expensive antenna for **Ka-band** signals for better speed and cost.

**What is the Ka-band used for?**

The Ka-band frequency allows the use of smaller antennas. Ka-band frequency can be used in high-resolution, close-range targeting radars, military aircraft, space telescopes, commercial, wireless point-point microwave communication systems, vehicle speed detection systems, and satellite communications.

**Challenges and Effects:**

1. **Legal Issues:** Problems with contracts for launches and competition.
2. **Worldwide Benefits:** Could help reduce the gap in digital access and promote growth in remote places.
3. **Competitors:** Competing with other satellite internet services like SpaceX's Starlink.

**About SpaceX:**

1. **Start:** Founded in 2002 by Elon Musk.
2. **Purpose:** To make space travel cheaper and aim for living on Mars.
3. **Reusable Rockets:** Made rockets that can be used again partly.

**Falcon 9 Rocket:**

1. **Build:** Rocket with two parts, where the first part can be used again.
2. **What It Can Do:** Takes things to a low orbit near Earth and further.

**Conclusion:**

Project Kuiper marks an important move by Amazon to offer internet across the globe, especially where it's most needed. Despite facing legal and practical issues, this project could greatly change global internet access and technology.

**17. LARGEST INDIGENOUS NUCLEAR POWER REACTORS IN INDIA**

Kakrapar Atomic Power Project's fourth unit (KAPP-4) in Gujarat achieved **criticality**, starting a controlled fission chain reaction.

**Location:** Kakrapar, about 80 km from Surat, Gujarat.

**Background:**

1. **Previous Units:** KAPP already has two operating PHWRs (**KAPS-1 and 2**) with a capacity of **220 MWe** each.
2. **Unit-3 Success:** The 700-MWe unit-3 of KAPP began generating commercial electricity from August 30.

**What is Criticality?**

1. **Definition:** Criticality in a nuclear reactor refers to the state where **nuclear fission becomes self-sustaining**.
2. **Significance:** It is the first step in nuclear energy generation, where each fission event produces enough neutrons for further fissions.

**Significance:**

1. **Capacity:** KAPP-4 has a capacity of **700 MWe**, making it one of the **largest indigenous nuclear power reactors in India**.
2. **Operator:** The reactor is built and operated by the Nuclear Power Corporation of India Limited (**NPCIL**).
3. **Technology:** KAPP-4 is a **pressurized heavy water reactor (PHWR)**, using **natural uranium as fuel and heavy water as coolant and moderator**.

**Safety Features:**

1. **Advanced Safety:** The reactor includes advanced safety features like a steel lining from the floor to the wall and a passive decay heat removal system.
2. **Regulatory Approval:** The reactor's first criticality was confirmed after meeting conditions set by the Atomic Energy Regulatory Board (AERB), India's nuclear safety watchdog.

**State of Nuclear Energy in India:**

1. **Contribution:** In 2022-23, nuclear energy accounted for about 2.8 percent of India's total energy production.
2. **Current Capacity:** NPCIL operates 23 reactors with a total capacity of 7,480 MW.
3. **Future Expansion:** Planned increase to 22,480 MW by 2031, with more projects under construction and sanctioned.

**NPCIL's Role:**

1. NPCIL presently operates **23 nuclear electricity** reactors with a total capacity of 7,480 MWe.
2. Additional Units: Nine units, including KAPP-4, are under construction, and ten more reactors with a total capacity of 7,000 MWe are in the pre-project phase.

**Conclusion:**

The achievement of criticality by KAPP-4 marks a significant achievement in India's indigenous nuclear power capabilities. This development demonstrates the strength of NPCIL in designing, constructing, commissioning, and operating nuclear reactors, highlighting India's growing expertise and self-reliance in nuclear technology. It also reflects the commitment to expanding clean energy sources to meet the country's increasing energy demands.

## 18. USA : FIRST CRISPR BASED GENE THERAPY FOR SICKLE CELL DISEASE

Food and Drug Administration (FDA), an agency under the U.S. Department of Health and Human Services, approved two gene therapies for sickle cell disease (SCD).

**More About the news**

1. Casgevy and Lyfgenia, first cell-based gene therapies, is approved for treatment of SCD (inherited blood disorder that can be debilitating (tending to weaken something) and lead to premature death) in patients 12 years of age and older.
2. Casgevy is also approved by the UK to treat both SCD and beta thalassemia (inherited blood disorder that reduces production of haemoglobin).
3. Casgevy therapy is utilising Clustered Regularly Interspaced Short Palindromic Repeats Associated Protein 9 (CRISPR-Cas9), a type of genome editing technology.
4. CRISPR-Cas9 is used to modify gene function, to change genetic code or edit DNA at particular locations.
  - a. Earlier, Nobel Prize for Chemistry, 2020 was awarded to Emmanuelle Charpentier and Jennifer A Doudna for development of CRISPR-cas9 technique.

**How does CRISPR-Cas9 work?**

- a. It works as a cut and paste mechanism on DNA Strands. Genetic codes that need to be changed are identified.
- b. Cas9 protein is used as a pair of molecular scissors to cut off a part from a strand.
- c. Strands when broken have a self-repairing tendency. This way damaged DNA strands can be removed and help the human body to restore to a healthy state.

**Applications of CRISPR:**

- a. Edit genes in human embryo
- b. Change genetic codes of crops to improve crop resilience
- c. Creating new therapies for Cancer treatment etc.

**CRISPR - SCD and India**

1. India approved a 5-year project to develop Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) to cure sickle cell anaemia in 2021.
2. Sickle cell anaemia is the first disease that is being targeted for CRISPR-based therapy in India.

**Sickle Cell Anaemia**

1. Sickle cell disease is a genetic blood disorder characterized by an abnormality in hemoglobin, the protein responsible for carrying oxygen in red blood cells (RBC).
  - a. It causes RBC to adopt a sickle or crescent shape, hindering their movement through vessels, leading to potential complications like severe pain, infections, anaemia, and strokes.

## 19. JT- 60 SA: EXPERIMENTAL NUCLEAR FUSION REACTOR

JT-60SA, the world's largest and most advanced experimental nuclear fusion reactor, has officially commenced operations in Japan's Ibaraki Prefecture.

**What is JT-60SA ?**

1. JT-60SA is a joint initiative between the European Union and Japan aiming to investigate the feasibility of nuclear fusion as a sustainable and near limitless power source.
2. The JT-60SA reactor is a six-storey-high machine, which is kept in a hangar in Naka, north of Tokyo.
  - a. It comprises a doughnut-shaped "tokamak" vessel set to contain the swirling plasma heated up to 200 million degrees Celsius.

3. One of the main objectives of this project is to replicate nuclear fusion ignition (net surplus energy), a feat first achieved by scientists at the Lawrence Livermore National Laboratory in California.
4. JT-60SA has been designed to support the operation of ITER (International Thermonuclear Experimental Reactor) by following a complementary research and development programme, and to investigate how to optimize the operation of fusion power plants that are built after ITER.

### Nuclear Fusion

1. Nuclear fusion is a process in which two or more light atomic nuclei fuse to produce a heavier nucleus and release a tremendous amount of energy.
  - a. In nuclear fission, atoms are split apart into lighter elements releasing energy. All nuclear power plants use nuclear fission.

### Significance and Advantages of fusion:

1. **Sustainable clean energy source**
  - a. It does not produce carbon dioxide, making it an important technology in the path to net zero emissions.
2. **No long-lived radioactive waste**
  - a. It stops when the fuel supply or power source is shut down. It generates no high-level long-lived radioactive waste.
3. **Limited risk of proliferation**
  - a. Fusion doesn't employ fissile materials like uranium and plutonium.

### About ITER

1. It is the world's largest tokamak, a magnetic fusion device that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy based on the same principle that powers our Sun and stars.
2. **Fusion Fuel**
  - a. ITER will use a mixture of deuterium & tritium as fuel for the fusion reactions.
    - i. Deuterium and tritium are isotopes of hydrogen & their fusion releases large amounts of energy.
3. **The ITER Members**
  - a. China, the European Union, India, Japan, Korea, Russia and the United States.

### 4. Objective

- a. To investigate and demonstrate burning plasmas in which the energy of the helium nuclei produced by the fusion reactions is enough to maintain the temperature of the plasma, thereby reducing or eliminating the need for external heating.

### Other similar initiatives

#### 1. China's Artificial Sun

- a. The Experimental Advanced Superconducting Tokamak (EAST) device replicates nuclear fusion.

#### 2. SST-2 tokamak

- a. India's experimental fusion reactor at the Institute of Plasma Research, Gujarat.

#### 3. Joint European Torus (JET)

- a. Project for opening the way to future nuclear fusion grid energy.

## 20. HYDROGEN FOR HERITAGE SCHEME

India proposed to invite global firms to manufacture Hydrogen trains for implementing the Hydrogen for heritage scheme.

### About Hydrogen-Powered Train Prototype

1. Indian Railways is developing a prototype of a train that will be powered by hydrogen fuel cells, making it a more environmentally friendly locomotive than traditional diesel-powered ones.
2. Currently, only Germany commercially operates hydrogen-powered trains, while the US, the UK, France, and Japan are in the testing phase.

### About Scheme

1. Announced in the Union Budget 2023-24.
2. Under the scheme, Indian Railways has envisaged to run 35 Hydrogen trains.
  - a. Also, Indian Railway will retro fitment of Hydrogen Fuel cell on existing Diesel Electric Multiple Unit (DEMU).
  - b. Hydrogen fuel cells use the chemical energy of hydrogen to produce electricity.

### 3. Benefits:

- a. It will promote green transportation technology that will support zero carbon emission goals.

### 4. Challenges:

- a. Initial running cost would be higher, as per the reports of the ministry of railways.
  - i. Though, it would subsequently reduce with an increase in the number of such trains.



## F. GEOGRAPHY & ENVIRONMENT

### 1. COP 28: A Step Towards a Sustainable Future

**COP28**, held from November 30 to December 12, 2023, in **Dubai, United Arab Emirates**, was a significant event for global climate change discussions. India played a pivotal role at this conference, showcasing its efforts in climate change mitigation and adaptation.

#### What is COP?

COP, or the **Conference of the Parties**, is a major event where countries from around the world discuss how to reduce the use of fossil fuels and help nations affected by climate disasters. Under the United Nations Framework Convention on Climate Change (**UNFCCC**). The **first COP was in Berlin, Germany, in 1995**. These meetings happen every year in different countries.

#### Why is COP Important?

COP is important because it's where countries talk about how to deal with climate change. They look at **reports from each country** to see how well they are doing in reducing **harmful gases** that warm our planet.

#### How COP Presidency Works

The leadership of COP changes each year among different world regions. This way, various parts of the world get a chance to lead and show how they are fighting climate change.

#### Key Outcomes of COP 28:

- Ending Fossil Fuels:** For the **1st** time, COP officially said that **fossil fuels (like oil and coal)** are a **main cause of climate change**. However, the agreement didn't strongly demand an end to fossil fuels. Instead, it talked about slowly moving away from them, aiming for **no more harmful gases by 2050**. A global industry Charter dedicated to speeding up climate action and achieving high-scale impact across the oil and gas sectors.
- Loss and Damage Fund:** A special fund was set up to help countries **facing big disasters** because of climate change. However, the money promised is

much less than what's needed. Also, the **World Bank will manage this fund**, taking a large fee, which caused some concerns. **1st** announced during COP27. Operationalized during COP28.

- Renewable Energy and Transitional Fuels:** Countries **agreed to use more renewable energy**, like solar and wind power, **by 2030**. They also talked about using some temporary fuels, like gas, which are not ideal but better than other harmful options. Signed by 118 countries on the sidelines of COP28. Aims to triple the global installed renewable energy capacity to at least 11,000 GW and Double the global energy efficiency improvement rate to more than 4% by 2030.
- Oil and Gas Decarbonization Charter:** More than 50 oil companies promised to reduce their harmful gas emissions. They **plan to cut down on methane gas**, which heats the planet quickly, and stop burning extra gas by 2030.
- Global Stocktake:** COP28 marked the **1st Global Stocktake of the Paris Agreement**. This was a check on how well the world is doing in reducing harmful gases since the Paris Agreement **in 2015**. Sadly, it showed that we are not doing enough to keep the planet's temperature from rising too much.
- Global Green Credit Initiative (GGCI):** By India Serve as the international platform for dialogue, collaboration, and the exchange of innovative environmental programs and instruments.
- Africa Green Industrialisation Initiative (AGII):** African leaders launched at COP28. AGII aims to accelerate green growth of industries in Africa and attract finance and investment opportunities.
- G7 climate club :** Led by Germany and Chile, along with 36 member countries including Kenya, the European Union, Switzerland and others. It is an open, cooperative, and inclusive forum of climate-ambitious countries with the goal of supporting the effective implementation of the Paris Agreement and decisions thereunder. It aims to support accelerating climate action and increasing ambition to achieve global net-zero greenhouse

gas emissions by or around mid-century, with a particular focus on the decarbonising industry.

#### Other Key Points:

- 1. Loss and Damage:** Countries agreed to help nations facing severe climate problems, but details on how the fund will work are still unclear.
- 2. Climate Finance:** There was progress in planning how rich countries will help poorer ones deal with climate change, but the details will be discussed later.
- 3. Adapting to Climate Change:** COP 28 focused on helping countries adjust to climate changes, like **planning for water security** and restoring ecosystems.
- 4. Fossil Fuels and Carbon Markets:** The discussions included how to reduce the use of coal and the role of carbon markets, where countries can **trade credits** for reducing harmful gases.

#### India's Engagements at COP28:

- 1. "Transforming Climate Finance":** Prime Minister Narendra Modi stressed the need for accessible climate finance for developing countries. He emphasized the importance of implementing **Nationally Determined Contributions (NDCs)** and welcomed the establishment of the **Loss and Damage Fund** and the UAE Climate Investment Fund.
- 2. Side Event on Himalayan Region:** At the India pavilion, a discussion was held on the vulnerability of the Himalayan Region to climate change and the need for **'Climate Resilient Development'** in the Indian Himalayan Region.

#### India's Initiatives and Statements

- 1. Focus on the Himalayan Ecosystem:** The importance of the National Mission for Sustaining the Himalayan Ecosystem (**NMSHE**) was discussed, emphasizing its role in understanding and adapting to climate change impacts on the Himalayas.
- 2. Quad Climate Working Group (QCWG) Event:** India organized an event focusing on localized climate action and released a publication highlighting India's climate action journey from **COP21 to COP28**.
- 3. Participation in Mangrove Alliance for Climate:** Union Minister spoke at the Mangrove Alliance for Climate Ministerial Meeting, outlining India's holistic approach to conservation, including the **MISHTI** project for **mangrove plantations**.

**4. Renewable Energy Sector Support:** The importance of lending to MSMEs in the Renewable Energy sector was discussed, emphasizing economic and environmental benefits.

**5. India's Leadership in Industry Transition (LeadIT 2.0):** India co-launched LeadIT 2.0.

- a. Goal:** This initiative aims for a fair and equal change in industries to use less harmful technologies that do not harm the environment. It also supports sharing new technology and financial help to developing countries for this change. India and Sweden started **LeadIT at the UN Climate Action Summit in 2019**.

**6. Green Credits Programme Event:** India, along with UAE, hosted a special event on this programme at COP-28. The Green Credit Initiative encourages voluntary environmental activities by the community, private companies, and individuals.

**7. Participation in Mangrove Alliance for Climate (MAC) Ministerial Meeting:** Union Minister spoke at the **(MAC)** Ministerial Meeting, outlining India's holistic approach to conservation, including the **MISHTI** project for mangrove plantations. MAC's goal is to increase efforts to protect, restore, and plant mangrove forests all over the world. **It was started by the UAE and Indonesia** during **COP 27**, and India is a member.

**8. India's National Statement at COP-28:** India presented its achievements and goals. India reduced its emission intensity compared to its GDP by 33% from 2005 to 2019.

- a. Non-Fossil Fuel Energy:** Achieved 40% of its electricity capacity from non-fossil fuel sources, 9 years before the 2030 target.
- b. Electric Capacity Added:** From 2017 to 2023, India added about 100 GW of electric capacity, 80% of which is from non-fossil fuel resources.

**9. Launch of Global River Cities Alliance (GRCA):** India led the launch of GRCA.

- a. Collaboration:** The National Mission for Clean Ganga (NMCG) and the Mississippi River Cities and Towns Initiative (MRCTI) signed an agreement leading to the GRCA launch.

- b. **Objective:** RCA, a joint initiative of the **Ministry of Jal Shakti and Ministry of Housing and Urban Affairs**, aims to connect river cities and focus on sustainable development around rivers.
- c. **Expansion:** The existing River Cities Alliance (RCA) expanded to include 267 global river cities from countries like India, USA, and Denmark.
- d. **Secretarial Role:** NMCG under the Ministry of Jal Shakti and National Institute for Urban Affairs under the Ministry of Housing and Urban Affairs will serve GRCA.

**Looking Forward:** Now, countries need to act on their promises from COP 28. This includes using more renewable energy and making laws to reduce the use of harmful fuels. The success of these efforts will be crucial in fighting climate change.

**Next COP:** COP 29 will be held in **Baku, Azerbaijan**.

**Conclusion:** India's active participation at COP28 underlines its commitment to diverse strategies for sustainable development. With **initiatives** ranging from **industry transition to the focus on the Himalayan ecosystem** and local climate actions, India showcases its comprehensive approach to tackling climate change. The country continues to be a proactive player in the global climate discourse, focusing on collaborative and innovative solutions for a sustainable future.

## 2. GLOBAL GREEN CREDIT INITIATIVE (GGCI)

PM Narendra Modi launched the Global Green Credit Initiative at COP 28 in Dubai.

**What is the Global Green Credit Initiative?**

1. GGCI is like a plan to **reward people** who voluntarily do things that are good for the planet.
2. It suggests giving "Green Credits" to people who **plant trees on unused or damaged lands** and near rivers to make nature healthier.
3. The initiative wants **countries to work together** by sharing ideas and lessons on how to do activities that help the environment, using programs like Green Credits.
4. GGCI introduces a '**Green Credit**' system, which is like a **digital and tradable tool** promoting actions for a healthier environment.

5. A '**Green Credit Portal**' is created, acting as a collection of information about tree plantations and environmental projects.
6. GGCI works in line with the **principles of the Green Credit program (GCP)**.

**Objectives**

1. Sharing scientific and technical knowledge
2. To make rules for green credit policies, deciding how they should work.
3. Help the global community work together by creating a common way of doing things.
4. Connecting together communities, self-help groups, and companies in one place so they can all join in and help each other.

**Benefits**

1. Environmental Improvement
2. Global knowledge sharing promotes a worldwide exchange of ideas.
3. Effective green credit policies support green practices.
4. Unified implementation of policies and inclusive participation.
5. Climate change response will be quick.

**More about India's Green Credit Programme (GCP):**

1. It is **like carbon trading** (which can be claimed and traded for reducing carbon footprint), GCP wants to do the same for other good environmental actions.
2. GCP mainly concentrates on two important activities: **saving water and planting more trees**.
3. Companies can buy these green credits as part of their **corporate social responsibility (CSR)**.
4. The **Indian Council of Forestry Research and Education (ICFRE)** is in charge of making sure the program works well.

## 3. NATIONAL CIRCULAR ECONOMY ROADMAP FOR PLASTIC REDUCTION

In December 2023, a flagship document on 'National Circular Economy Roadmap for reduction of Plastic waste in India' was released.

**What is this roadmap?**

1. This roadmap is a joint effort between research institutions in **India and Australia**.

2. Aim is to encourage collaboration in research and industry. Main focus on creating a plan for India to shift towards a circular economy in the plastics sector.

**What is Circular Economy?**

A circular economy is a way of producing and consuming goods that focuses on sharing, leasing, reusing, repairing, refurbishing, and recycling materials and products for as long as possible. It **aims to extend the life cycle of products**. When a product reaches the end of its life, its materials are recycled and used again, creating additional value. It promotes sustainability and waste reduction.

**Why do we need a roadmap for plastic waste?**

1. Plastic poses a major challenge in the 21st century. India produces around **26,000 tonnes of plastic waste daily**, totaling approx 4 million tonnes annually.
2. Packaging is the largest contributor (59%), followed by building (13%) and agriculture (9%).

3. **Waste management** in India is **fragmented** in the informal sector.
4. The government’s July 2022 ban on single-use plastics only applies to a small portion (10-15%) of plastic usage.

**Benefits of Circular Economy:**

1. **Economic Benefits:** it opens new markets for used plastics and promotes eco-friendly products.
2. **Environment Benefits:** Reducing landfill waste, less greenhouse gas emissions, improved air quality, and less microplastics in the food chain.
3. **Behavioral Change:** encourages a shift from ‘use and throw’ attitude.
4. **Global Commitments:** it supports Sustainable Development Goals (SDGs) and the net-zero target.
5. **Plastic Treaty and Global Initiatives:** supports Global Plastics Treaty, LiFE (Lifestyle for the Environment) movement etc.

Challenges in Attaining Circular Economy	Solutions
1. Lack of Awareness	More awareness campaigns and educational programs.
2. Less facilities for recycling and reusing materials	Develop infrastructure for waste collection, recycling, and processing.
3. Initial economic costs are high	Introduce incentives, subsidies, or tax benefits to adopt circular economy practices.
4. Consumer behavior of ‘use and throw’	Promote sustainable consumption for environmentally friendly choices.
5. Lack of clear rules and regulations	Enforce regulations strictly and give penalties.
6. Outdated technologies for recycling	Invest in research and development
8. Resistance to Change from businesses or individuals	Provide support and guidance and highlight long term benefits.

**Plastic waste management in India**

1. Implementation of **state-specific bans on single-use plastics**.
2. Adoption of **Extended Producer Responsibility (EPR)** to hold producers responsible for proper disposal of plastic products.
3. Notification of **Plastic Waste Management Rules**, which provide guidelines for plastic waste collection, segregation, and recycling.
4. Establishment of **waste-to-energy plants** to convert plastic waste into energy.

**4. 1<sup>st</sup> REPORT ON ETHICS OF CLIMATE ENGINEERING BY UNESCO**

Before the COP28 meeting, this 1<sup>st</sup>-ever report by UNESCO is alerting people about the ethical concerns related to climate engineering.

It looks into the dangers and possible benefits of these new technologies that can change and control the climate. It also provides solid advice for how to study and manage these technologies.

**Introduction to Climate Engineering:**

Climate engineering, also known as **Geo-engineering**, is a way to manage the Earth’s climate.

It's different from cutting down **greenhouse gases**. Instead, it **directly changes the climate system**. This **doesn't** solve the root problem of climate change but helps slow it down. It includes:

1. **Carbon Dioxide Removal (CDR)**: CDR also known as greenhouse gas removal (GGR) or negative emissions, is a process in which carbon dioxide gas (CO<sub>2</sub>) is removed from the atmosphere by deliberate human activities and stored in geological, terrestrial, or ocean reservoirs, or in products.
2. **Solar Radiation Modification (SRM)**: Letting more heat escape into space or bouncing sunlight back into space. SRM is also called **Solar geoengineering**.

#### Why Climate Engineering is Important?

1. **Imitates (follow) Nature**: It copies natural processes to fight climate changes.
2. **Extra Time**: Gives us more time to switch to renewable energy by reducing the rush to cut carbon emissions.
3. **Can Be Done Locally**: Some methods are cheap enough to be used in different places.
4. **Fills Policy Gaps**: Helps bridge the gap between climate goals and the needed drop in greenhouse gases to prevent terrible climate change effects.

#### Risks of Climate Engineering:

1. **Environmental Risks**: It might harm nature in the long term, like damaging the ozone layer, changing rainfall patterns, hurting crops, and making the ocean more acidic. If we stop using these technologies suddenly, it could cause rapid warming and harm water cycles and wildlife.
2. **Economic Risks**: These technologies are expensive to develop and use. Also, more patents in the US and EU could widen global inequality.
3. **Ethical Issues**:
  - a. **Unclear Responsibility**: It's hard to say who's responsible for the risks because an individual can take advantage of a deal or situation, knowing that all the risks and fallout will land on another party. It might make us less willing to take care of our environment.

#### UNESCO's Advice for Safer Climate Engineering:

1. **Better Governance**: Make laws to regulate and prevent misuse of these technologies.

2. **Include Everyone**: Involve different groups like women, youth, and native communities in making policies.
3. **More Research**: Encourage open research and keep an eye on climate actions.
4. **Build Capacity**: Help countries improve their ability to handle climate actions.
5. **Educate and Spread Awareness**: Make sure people learn about the ethical issues in climate actions.

Climate engineering might be dangerous due to how it affects the climate and could make current risks worse or create new problems. Therefore, it's really important to use these technologies carefully, fully knowing their impact and ethical issues.

## 5. CLIMATE CHANGE PERFORMANCE INDEX 2024

India has secured the **7<sup>th</sup> position** in the **Climate Change Performance Index (CCPI) 2024**, exhibiting an improvement from its 8th position last year.

#### About CCPI

1. The CCPI is an **annual report** collaboratively prepared by **Germanwatch**, the **New Climate Institute**, and the **Climate Action Network** since 2005.
2. It serves as a **tool to enhance transparency** in both national and international climate politics.

#### Assessment Criteria

1. The CCPI utilizes a standardized framework to assess the climate performance of **63 countries and the EU**, representing over **90% of global greenhouse gas emissions**.
2. **Assessment Categories**: Countries are evaluated based on **Greenhouse Gas (GHG) Emissions (40%)**, **Renewable Energy (20%)**, **Energy Use (20%)**, and **Climate Policy (20%)**.

#### Global Concerns

1. Globally, there's been **minimal improvement in emission reduction efforts**. Among 64 countries assessed, **37 countries showed fluctuations** compared to the previous year.
2. Despite the urgency to decarbonize, **GHG emissions rose in 2022**, resulting in atmospheric CO<sub>2</sub> levels being **50% higher than pre-industrial levels**.

**Top Performers in CCPI 2024**

1. **Denmark (4th), Estonia (5th), and the Philippines (6th)** secured top positions in the CCPI 2024.
2. **Notable Slips:** Italy (-15 positions), United Kingdom & France (-9 positions), Japan (-8 positions), and the United States (-5 positions).

**India's Performance**

1. India's **ranking improved to 7th position** this year, displaying a positive shift from the 8th position last year.
2. Effectively, India holds the **4th position** as the first three ranks in the 'very high' performance category are vacant.
3. India achieved a **score of 70.25%**, showing progress from the previous year's score of 67.35%.

**India's Challenges and Initiatives**

1. Despite efforts to promote renewable energy, India's growing energy needs are still met with a **heavy reliance on coal**, contributing to GHG emissions and severe air pollution.
2. India faces challenges as one of the **most air-polluted countries globally** due to reliance on coal, oil, and gas.
3. India is committed not only to domestic progress but also to steering **global commitments** for a sustainable world.

**6. GLOBAL RIVER CITIES ALLIANCE: FIRST OF ITS KIND IN THE WORLD**

In December 2023, The National Mission for Clean Ganga (NMCG), which implements the government's flagship **Namami Gange programme**, has **launched** the Global River Cities Alliance (GRCA) **at the United Nations Climate Change Conference COP28 in Dubai.**

**Main Points:****1. Who Organized and Took Part:**

- a. **Led by India's** National Mission for Clean Ganga and chaired by **Ministry of Jal Shakti.**
- b. Countries involved include **India, Egypt, Netherlands, Denmark, Ghana, Australia, Bhutan, Cambodia, Japan.**
- c. Cities like The Hague(Netherlands), Adelaide (Australia), Szolnok(Hungary)are part of it.
- d. Support from big organizations like the World Bank and Asian banks.

**Performance of BASIC Group**

1. India, part of the **BASIC group (Brazil, South Africa, India, and China)**, showcased positive performance.
  - **Brazil (23rd)** : Improved by 15 positions.
  - **South Africa (45th)** : Slipped one position.
  - **China (51st)** : Maintained the same position.

**2. What is GRCA for:**

- a. Focuses on taking care of rivers and managing water in a good way.
- b. Brings together over **275 cities** located near rivers from **11 countries.**
- c. This alliance builds upon the existing **River Cities Alliance (RCA)**, formed by NMCG in association with the National Institute of Urban Affairs (NIUA) in 2021

**3. India's Important Role:**

- a. India's Minister for Jal Shakti, talked about following Prime Minister Narendra Modi's guidance.
- b. India's big projects include **Namami Gange and Swachh Bharat Mission.**
- c. RCA now includes 143 cities, with some outside of India.

**4. Global Promises and Views:**

- a. Plans to put GRCA into action after COP28.
- b. Focus on including **water management** in city planning.
- c. Recognizes **India's leading role** in developing rivers sustainably.

**5. What Was Achieved and Future Plans:**

- a. Better worldwide teamwork for managing rivers and water.
- b. Aiming for a future where water management is strong and sustainable.
- c. Sharing knowledge, finding money for projects, and spreading good ways of doing things.

**Why It Matters:**

- a. This is a big step in fighting climate change.
- b. Supports goals for sustainable growth and being prepared for climate changes.
- c. Provides a way for countries to share their knowledge and work together for water safety.

## 7. INDIA LAUNCHES BRIC SOCIETY AND ZERO WASTE LIFE ON CAMPUS' PROGRAM

### CONTEXT:

In a historic move to advance biotechnology research and innovation, the Union Minister of State (Independent Charge) for Science & Technology announced the **inauguration of the Biotechnology Research and Innovation Council (BRIC)** during its **first-ever meeting** after receiving Cabinet approval on November 10, 2023.

### Key Highlights:

#### 1. Biotechnology Research and Innovation Council (BRIC):

- A. Started to improve biotech research and new ideas in India.
- B. Aims to support Prime Minister Narendra Modi's **vision** for a **self-reliant** India in **health, food, and energy**.
- C. Wants to make India **one of the top 10** in the **world for biotech**.

#### 2. Function and Structure of BRIC:

- A. Run by the Department of Biotechnology under the Ministry of Science and Technology.
- B. Combines 14 Independent Institutions under one big group for better management.
- C. Each place keeps its own research focus within BRIC.

#### 3. Collaborations and Research Enhancements:

- A. Focuses on **working with private companies** for research.
- B. Starts new **Ph.D. programs** with the same courses for everyone.
- C. Works with outside **experts** and companies to **help new businesses grow**.

#### 4. 'Zero Waste Life on Campus' Program:

- A. Started to manage waste better in BRIC campuses.
- B. Follows **PM Modi's Mission LiFE idea**, which is about taking care of the environment.
- C. Wants other places in India to also use zero waste methods.
- D. **PM Modi's Mission LiFE** encourages people worldwide to adopt small, environment-friendly actions in their daily lives. It aims to build a community of **'Pro-Planet People' (P3)** to promote sustainable living habits. The mission also seeks to shift from a wasteful 'use-and-dispose' economy to a more thoughtful and efficient circular economy.

### Conclusion:

The start of the BRIC Society and the **'Zero Waste Life on Campus'** program are big steps for India. They show the country's commitment to new ideas in **biotech** and caring for the environment. These efforts match India's bigger goals of being self-reliant and a leader in biotech globally.

## 8. THE ENVIRONMENTAL IMPACT OF WAR AND ARMED CONFLICT

When we think about war, we often focus on the human cost, like lives lost and cities destroyed. However, **there's another serious issue that comes with war - the damage it does to our environment**.

Recent conflicts between Russia and Ukraine, Israel and Palestine, and other wars around the world have caused extensive environmental damage, described as **ecocide**.

- a. **Ecocide** describes the mass destruction of nature by humans
- b. **Ecocide** threatens all human populations who are dependent on natural resources for maintaining ecosystems and ensuring their ability to support future generations.

### Key points:

1. During these wars, the use of weapons and military activities caused a lot of harm to the land, water, and air. The conflict led to the release of toxic substances like **lead, mercury, and depleted uranium** into the environment due to explosions. This pollution affects **air, water, and soil, posing serious health risks**.
2. Industrial areas have seen disasters, with harmful leaks spreading poison across Ukraine and beyond. The war also increases the risk of **nuclear accidents**, contributes to **CO2 emissions**, and contradicts climate change efforts.
3. The situation highlights the need for **addressing environmental impacts** in conflict zones and **international cooperation** for recovery efforts.
4. These wars also show us that during conflicts, taking care of the **environment is often not a priority**. Rules to protect nature are ignored, leading to more damage, such as factories releasing dangerous chemicals without control. Moreover, the need for resources for war, like **oil and metals, results in harmful activities like excessive mining and drilling, causing further environmental issues**.

5. The environmental cost of war is a big concern because it not only affects the areas where the war is happening but can also have **long-term global impacts**, including contributing to climate change.

**Efforts to Reduce Impact:** There are rules and reports to try to reduce the environmental impact of war:

1. **The Geneva Convention** sets limits on how war can be fought to protect the environment.
2. **The Brundtland Report** talks about sustainable development and how conflict stops it.
3. **The Stockholm Conference** banned all weapons of mass destruction.
4. **The 1992 Rio Conference** said that war is bad for sustainable development and asked countries to follow environmental rules during war.
5. **The Rome Statutes** talk about countries' responsibility for environmental damage in wars.
6. **The International Day** for Preventing the Exploitation of the Environment in War and Armed Conflict highlights the need to protect the environment during conflicts.
7. **The Draft Principles** on Protection of the Environment in Relation to Armed Conflicts give guidelines for protecting the environment in wars.
8. **The UN Convention** on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques tries to stop military use of environmental modification.

**Challenges related to the environmental costs of war:** Understanding the environmental cost of war is hard, especially in places with a lot of biodiversity. It's difficult to measure the damage, and the **military's pollution isn't included in the Paris Climate Agreement**. After a war, rebuilding often **focuses on homes and infrastructure instead of the environment**. Climate change, partly caused by war, makes things worse by making resources scarce and increasing conflicts.

#### Ways to Reduce War's Impact on the Environment

1. The UN Framework on Climate Change could make rules about emissions from military and conflicts.
2. After conflicts, focus on recovery that is good for the environment.
3. Train the military on reducing emissions and protecting the environment.
4. Make the military more eco-friendly, like using electric vehicles and solar power. The UK and Switzerland are working on this.

## 9. INDIA SURPASSED MONTREAL PROTOCOL TARGETS

1. India has successfully surpassed Montreal protocol targets, says report.
2. The report was jointly released by the Ministry of Environment, Forest and Climate Change (MoEFCC) and UNDP during COP28.

#### Facts of the report

1. India did better than expected in reducing harmful substances called HCFCs (Hydrochlorofluorocarbons). They aimed to cut down by 35%, but they achieved a **bigger reduction of 44%** from the baseline in 2020.
2. Also, India completely stopped using a specific type of HCFC called 141b.
3. India is planning to stop using HCFCs in making new equipment entirely by December 2024, which is earlier than what the Montreal Protocol schedule requires by 2030.

#### What are HCFCs?

1. Hydrochlorofluorocarbons (HCFCs) are a class of **man-made compounds** that contain hydrogen, chlorine, fluorine, and carbon atoms.
2. They were developed as **substitutes for chlorofluorocarbons (CFCs)**, which were found to be harmful to the ozone layer.
3. HCFCs are **employed as refrigerants** in production of new equipment. HCFC 141b, is used as a blowing agent in production of rigid polyurethane foam.

#### About Montreal Protocol (1987)

1. An international treaty designed to protect the Earth's ozone layer.
2. It was implemented under the Vienna Convention (adopted in 1985)
3. Its target is to **eliminate the production and use of Ozone Depleting Substances (ODS)**.
4. In 2016, countries agreed to the Kigali Amendment to the Montreal Protocol. This agreement is about reducing the use of Hydrofluorocarbons (HFCs).

#### What is Ozone?

1. Stratospheric Ozone is found at 10-40 KM above Earth's surface, and protects Earth from UV radiation from the Sun.

- The ozone layer shields living organisms from the harmful effects of excessive UV radiation, such as skin cancer, cataracts, and harm to plants and marine ecosystems.
- Ozone in the stratosphere is 'good ozone' while Ozone formed in Troposphere is harmful and is called 'bad ozone'.

#### What is ODS: Ozone Depleting Substances?

- ODS are human-made chemicals containing chlorine and bromine like Chlorofluorocarbons (CFCs), HCFC, tetrachloride, etc.
  - Examples** : Chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform.
- It can break down ozone molecules in the stratosphere, leading to a thinning of the ozone layer.

#### Some efforts by India to address ozone depletion:

- Phasing out of Hydrochlorofluorocarbons(HFC)** in line with the Montreal Protocol.
- India Cooling Action Plan (ICAP)**, which aims to use fewer substances in cooling, help with climate change, and achieve certain development goals. It's a part of India's goal to have no emissions by 2070.
- Ozone Cell** under the Ministry of Environment, Forest and Climate change for dedicated efforts.

## 10. MARAPI VOLCANO

Recently, the Marapi volcano in West Sumatra, Indonesia, experienced a volcanic eruption.

#### About Mount Merapi

- Mount Merapi is a stratovolcano, exhibiting a towering, cone-shaped structure formed by a single layer of solidified lava, tephra (fragmented material resulting from a volcanic eruption), and volcanic ash.
  - A stratovolcano is a volcanic landform distinguished by a cone-shaped structure created through the accumulation of layers of volcanic material deposited during successive volcanic eruptions.
- Characteristics:** These volcanoes are recognized by a steep profile and discontinuously, explosive eruptions, often involving pyroclastic flows.
  - Pyroclastic flows** are fast-moving currents of extreme hot gas and rock that rapidly move away from the volcano at exceptionally high velocities.

- Location:** Geotectonically, Merapi is positioned at the subduction zone where the Indo-Australian Plate is subducting beneath the Eurasian Plate. It is a component of the Pacific Ring of Fire.

## 11. ENNORE OIL SPILL

**Background:** On December 4, 2023, a big oil leak happened in Ennore, Tamil Nadu, India. This happened at the Chennai Petroleum Corporation Limited (**CPCL**) refinery. About 10 tonnes of heavy oil went into the **Buckingham Canal** and **Ennore Creek**. This caused **pollution in the Bay of Bengal**, affecting nature and people's work.

#### Key Points:

- Reason:** We still don't know exactly why the leak happened. Maybe it was because of the **heavy rain from Cyclone Michaung**, problems at the refinery, or someone not being careful.
- Effects:**
  - On the environment:** The oil made the **water and ground polluted**, which is not good for sea life, birds, and mangroves.
  - On people and work:** Over 2,300 fishing families are suffering. Their fishing areas are polluted, and their boats are damaged.
  - On health:** People are worried about health problems for fishermen and others living nearby because of the oil.

#### What the Government Did:

- The Tamil Nadu government made a **special group to help clean up** and give money to those who were affected.
- The National Green Tribunal (**NGT**) told CPCL to pay ₹7.5 crore and the state government to give an additional ₹1.15 crore.
- Investigations are going on to find out why the spill happened and to hold the right people responsible.

#### Challenges:

- Cleaning up the oil:** It's hard to clean up heavy oil, especially in sensitive places like Ennore Creek and the Bay of Bengal.
- Helping the affected people:** We need to help the fishing families get back on their feet and find other ways for them to make money.
- Preventing future spills:** We need better safety at the refinery and to be more prepared for disasters.

**Global Actions to Handle Oil Spills****1. Working Together Internationally:**

- a. **Who's involved:** Groups like the International Maritime Organization (**IMO**) and the United Nations.
- b. **Agreements:** Such as the International Convention on Oil Pollution and the **MARPOL** Convention.

**2. Using Technology and New Ideas:**

- a. **Better cleaning methods:** Using chemicals, machines, barriers, and natural cleaners.
- b. **Research:** Looking for safer and better ways to respond to spills.

**India's Work in Managing Oil Spills****1. National Policy and Framework:**

- a. **National Oil Spill Disaster Plan:** India's plan for responding to oil spills.
- b. **Coast Guard's Role:** They are the main group for handling oil spills.

**2. Training and Capacity Building:**

- a. **Practice Drills:** Regular training by the Coast Guard and others.
- b. **Learning from Others:** Working with international groups and joining global training.

**3. Public and Community Engagement:**

- a. **Teaching the Public:** Informing people about the dangers of oil spills and how to respond.
- b. **Working Together:** Getting local people, NGOs, and businesses involved in preparing for and responding to spills.

**Conclusion:**

The oil spill in Ennore shows how fragile our coasts are. It points out the need for stronger rules to protect the environment and for industries to act responsibly. This incident also highlights the importance of a good government response and the support of the community when disasters happen.

**12. INDIAN FOREST AND WOOD CERTIFICATION SCHEME****Context**

1. The Ministry of Environment, Forests and Climate Change has launched the Indian Forest & Wood Certification Scheme (IFWCS) to promote Sustainable Management of forests and agroforestry.

2. This national forest certification scheme offers voluntary 3rd - party certification designed to promote sustainable forest management and agroforestry in the country.

**Background**

1. Rising concerns about deforestation and the need for sustainable forest management.
2. Pledge made at the Glasgow climate change conference in 2021 to halt and reverse deforestation by 2030.
3. Reliance on private foreign certification agencies for wood products, with concerns about transparency and credibility.

**Key Components of the Scheme****A. Nodal Agencies:**

1. Indian Forest and Wood Certification Council (IFWCC).
2. Indian Institute of Forest Management (IIFM).
3. National Accreditation Board for Certification Bodies (NABCB).

**Introducing IFWCS :****1. Objective**

- a. Promote sustainable forest management and agroforestry practices in India.
- b. Offer a credible and transparent alternative to foreign certification agencies.
- c. Enhance trust and traceability in the wood products market.

**2. Scope :** Covers three main areas :

- a. Sustainable management of forests under state control.
- b. Sustainable management of trees outside forests (farmlands, plantations, urban areas).
- c. Chain of custody certification for wood products throughout the supply chain.

**B. Certification Process:**

1. Voluntary participation by entities involved in forest management and wood-based industries.
2. Independent audits conducted by accredited certification bodies against relevant standards.
3. Upon meeting standards, entities receive certificates for sustainable forest management or chain of custody.

**C. Further Considerations:**

- Efficacy and Impact:** Monitoring and evaluation of the scheme’s effectiveness in promoting sustainable forest practices.
- Accessibility and Affordability:** Ensuring equitable access to certification for different stakeholders, particularly small-scale farmers and forest communities.
- Collaboration and Awareness:** Building partnerships with stakeholders and raising public awareness about the scheme’s benefits.

**Comparison with other Forest Certification Schemes:**

- IFWCS aims to provide a more contextually relevant and transparent alternative to existing international schemes.
- Focus on trees outside forests and chain of custody is unique and addresses the growing importance of non-traditional forestry practices.
- Successful implementation could offer valuable lessons for other countries and contribute to global efforts towards sustainable forest management.

Problem	Solution	Benefits
<b>1. Lack of transparency and credibility in forest certification:</b> Private foreign agencies operating in India raised concerns about their integrity.	<b>1. IFWCS offers an alternative:</b> A voluntary third-party scheme overseen by Indian agencies, ensuring greater trust and ethical sourcing.	<b>1. Enhanced market trust and access:</b> Increased buyer confidence in Indian wood products, potentially opening up new market avenues.
<b>2. Unsustainable forest management practices:</b> Deforestation and depletion of forest resources.	<b>2. Sustainable management focus:</b> IFWCS certifies sustainable forest management, promoting responsible logging and conservation.	<b>2. Preserved forests and biodiversity:</b> Reduced deforestation, protecting ecosystems and wildlife habitats.
<b>3. Limited market recognition for ethical wood products:</b> Consumers often unaware of sustainably sourced options.	<b>3. Chain of custody certification:</b> Tracks wood products throughout the supply chain, guaranteeing ethical sourcing and handling.	<b>3. Informed consumer choices:</b> Enables buyers to choose environmentally responsible wood products, driving market demand for sustainability.
<b>4. Fragmented management of trees outside forests:</b> Lack of uniform standards and practices for trees on farmlands and plantations.	<b>4. Trees Outside Forests Standard:</b> Introduces dedicated certification for non-forest trees, promoting sustainable agroforestry and tree management.	<b>4. Increased tree cover and carbon sequestration:</b> Encourages planting and responsible management of trees outside forests, contributing to climate mitigation.

The IFWCS presents a promising opportunity to promote sustainable forest practices and build trust in the Indian wood products market. By addressing concerns about transparency and providing market incentives, the scheme has the potential to contribute significantly to achieving India’s forest conservation and climate change goals.

**13. Ministry of Jal Shakti released Dynamic Ground Water Resource Assessment Report for the year 2023**

**Context:** - The Minister of Jal Shakti has released the Dynamic Ground Water Resource Assessment Report for the year 2023.

**What is Dynamic Ground Water Resource Assessment Report?**

- It aims to determine the prevailing status of groundwater resources and the impact of ongoing groundwater management practices.
- The assessment was carried out jointly by Central Ground Water Board (CGWB) and States/UTs
- Previously carried out in 1980, 1995, 2004, 2009, 2011, 2013, 2017, 2020 and 2022. From 2022 onwards it’s being carried out annually.

**Central Ground Water Board (CGWB)**

It is a national apex organization tasked to carry out exploration, scientific surveys, monitoring of development, management and regulation of

country's vast groundwater resources for irrigation, drinking, domestic and industrial needs.

- a. It is under Ministry of Jal Shakti
- b. Established in 1970 by renaming Exploratory Tube wells organization. And was merged with the Ground water wing of Geological Survey of India during 1972.
- c. Its mandate is to develop and disseminate technologies, and monitor and implement national policies for the Scientific and Sustainable development and management of India's Ground Water Resources.

**Highlights of Dynamic Ground Water Resource Assessment Report 2023**

1. **Increase in ground water recharge:** Total annual ground water recharge is 449.08 billion cubic

meters (BCM), marking an increase of 11.48 BCM compared to last assessment released in 2022. Major increase is noticed in West Bengal, Assam, Telangana, Chhattisgarh, Karnataka, Gujarat and Bihar.

- 2. **Increase in annual ground water extraction:** Total annual ground water extraction is 241.34 BCM for the entire country.
- 3. **Decrease in stage of groundwater extraction level:** Currently stands at 59.23%.

Stage of groundwater extraction is a measure of annual ground water extraction for all uses including irrigation, industrial and domestic purpose.

**Total assessment of 6553 Units**

<p><b>Over-exploited units</b> (Indicating GW extraction exceeding annually replenishable GW recharge)</p>	<p>736 units (11.23%) of total 6553 assessment units in various States/UTs are Over-exploited. These Units are mostly concentrated in:</p> <ul style="list-style-type: none"> <li>a) North west, including parts of Punjab, Haryana, Delhi and Western Uttar Pradesh where there has been indiscriminate withdrawals of GW leading to over-exploitation.</li> <li>b) Western part, in parts of Rajasthan and Gujarat, where due to arid climate, GW itself is limited.</li> <li>c) Southern part, including parts of Karnataka, Tamil Nadu, Telangana and Andhra Pradesh, where due to inherent characteristics of crystalline aquifers, GW availability is low.</li> </ul>
<p><b>'Critical' units</b> (GW extraction between 90- 100%)</p>	<p>199 (3.04 %) assessment units. Accounts for 3 % of total recharge worthy area of the country.</p>
<p><b>"Semi-critical" units</b> (GW extraction between 70 -90 %)</p>	<p>698 (10.65 %) assessment units. Accounts for 12 % of total recharge worthy area of the country.</p>
<p><b>'Safe' units</b> (GW extraction is less than 70 %)</p>	<p>4793 (73.14 %) assessment units. Accounts for 66 % of total recharge worthy area of the country.</p>

**Status of Ground water in India**

- 1. India is the world's largest user of groundwater in the world
- 2. 21 major cities, including Delhi, Bengaluru, and Chennai, are expected to run out of groundwater by 2020, As per NITI Aayog.
- 3. According to the Central Ground Water Board, groundwater levels in more than 60% of the wells monitored across India have shown a declining trend.
- 4. The Interconnected Disaster Risk Report 2023, issued by the United Nations University – Institute for Environment and Human Security, highlights

that certain regions within the Indo-Gangetic basin in India have surpassed the tipping point for groundwater depletion.

- 5. Additionally, projections indicate that the entire north-western region is expected to encounter severely diminished groundwater availability by the year 2025.
- 6. The over-extraction of groundwater for agriculture is evident in states like Punjab, where the groundwater level has been consistently declining, leading to concerns about long-term sustainability.

**Reasons for Overall decline in GW in India****1. Excessive Agricultural Extraction:**

- (a) Agriculture is the largest consumer of groundwater in India, accounting for approximately 89% of the total groundwater extracted.
- (b) The widespread use of unregulated and energy-intensive groundwater pumping for irrigation has led to over-extraction, particularly in states like Punjab, Haryana, and parts of Rajasthan.

**2. Urbanization and Industrial Growth:**

- (a) Rapid urbanization and industrialization contribute significantly to the decline in groundwater levels.
- (b) Increased demand for water in urban areas and the establishment of industries often rely on excessive groundwater extraction, further stressing the available resources.

**3. Lack of Regulatory Measures:**

- (a) Inadequate regulation and enforcement of groundwater extraction policies contribute to over-exploitation.
- (b) The absence of proper monitoring and control mechanisms allows unchecked extraction, exacerbating the depletion of groundwater resources.

**4. Climate Change Impact:**

- (a) Changing precipitation patterns and increasing temperatures associated with climate change affect the recharge of groundwater.
- (b) Irregular rainfall and prolonged droughts reduce natural replenishment, intensifying the stress on existing groundwater reservoirs.

**5. Inefficient Water Management Practices:**

- (a) Inefficient water use practices, such as the absence of water-saving technologies and traditional flood irrigation methods, lead to excessive water consumption.
- (b) The lack of awareness and adoption of sustainable water management practices contributes to the overall decline in groundwater levels.

**Impacts of declining Ground water in India**

1. Declining groundwater hampers crop yields, impacting the livelihoods of millions as 60% of

India's net sown area relies on groundwater for irrigation.

2. Industries like food processing and textiles face challenges as depleting groundwater affects production processes.
3. Depleting groundwater sources contribute to a shortage of safe drinking water, affecting communities across the country.
4. Land subsidence from groundwater depletion leads to infrastructure damage, particularly in urban areas like Delhi, Bengaluru, and Chennai.
5. Groundwater decline disrupts natural ecosystems, affecting wetlands, rivers, and biodiversity, leading to ecological imbalances.

**Ground Water Assessment and Management Initiatives by Government**

1. **Master Plan for Artificial Recharge to Groundwater** in India envisions the implementation of nearly 11 million rainwater harvesting and artificial recharge structures to enhance the country's groundwater resources.
2. **National Aquifer Mapping & Management Programme (NAQUIM)** is aimed at mapping major aquifers, characterizing them, and formulating aquifer management plans to ensure resource sustainability. It prioritizes over-exploited, critical, and semi-critical assessment units.
3. **Watershed Development Programmes:** Various State Governments implement watershed development programs, where groundwater conservation is integral. Water conservation measures are also part of the MGNREGA.
4. **JalKrantiAbhiyan**, launched by the Ministry of Jal Shakti, aims to consolidate water conservation and management initiatives in the country through a holistic, integrated approach involving all stakeholders.
5. **AtalBhujalYojana** aims to improve groundwater management in identified water-stressed areas in parts of a few states with emphasis on demand management and community participation.
6. **Pradhan MantriKrishiSinchaiYojana (PMKSY)** - **HarkhetKoPani** envisions creating irrigation potential from groundwater in assessment units with sufficient scope for further development.
7. **Jal Shakti Abhiyan** is characterized by the expeditious execution of five interventions:

water conservation and harnessing of rainwater, revitalization of traditional and contemporary aquatic ecosystems, recycling and replenishment of water, watershed development, and deliberate augmentation of afforestation efforts.

**Suggestions for improving Groundwater Management:**

1. **Shift to Water-Efficient Crops:** Encourage a shift away from water-intensive crops. For instance, in Gujarat, farmers are recognizing the importance of transitioning from crops like cotton and wheat to alternatives such as pomegranates and cumin. These crops not only require less water but also offer favorable market prices.
2. **Adopting One Water Approach:** Transitioning focus from linear water management to a multi-dimensional integrated water management strategy (One Water approach) to achieve a comprehensive, resilient, and sustainable management of water resources.
3. **Estimating Future Availability:** Utilize groundwater modeling to project future availability, considering changing climate patterns and extraction practices. This can provide insights into the sustainable use of groundwater resources.
4. **Promote Community Participation:** Recognize that groundwater conservation involves millions of individuals, and thus, communities should play a central role. This involves integrating scientific knowledge with traditional wisdom to enhance the effectiveness of conservation efforts.
5. **Policy-Level Interventions:** Implement policies to address the water-energy nexus, such as separating agricultural electrical connections from household connections. Introduce fixed timings for agricultural electricity availability to manage water usage effectively. Recommendations from the **Mihir Shah Committee**, such as specifying drilling depth and distance between wells, can guide corrective measures.
6. **Governance Restructuring:** Consider restructuring institutions responsible for water management. The Mihir Shah Committee suggests the formation of a new National Water Commission by reorganizing the Central Water Commission and the Central Ground Water Board. This unified body is envisioned to facilitate collective management of both ground and surface water.

7. **Demand-Side Interventions :** Implement interventions on the demand side, including surface water harvesting through the creation of farm ponds and check-dams. Additionally, encourage the adoption of water-efficient irrigation systems, such as more effective drip and sprinkler systems, to optimize water utilization in agriculture.

**Conclusion**

The Groundwater Resource Assessment Report for 2023 emphasizes positive trends and challenges, emphasizing the necessity for a comprehensive and sustainable approach to groundwater management in India. This approach should incorporate technological innovation, policy restructuring, and community participation to ensure long-term water security.

**14. MULLAPERIYAR DAM SAFETY CONCERN RAISED**

**Context**

The Supreme Court has asked Survey of India to check a big parking project in Kerala near the Mullaperiyar Dam. They want to know if the project spreads into the area which was agreed for the Periyar Lake Lease in 1886.

**Mullaperiyar dam & its Significance:**

1. It is situated in the Idukki district of Kerala, over Periyar river.
2. Constructed in the late 19th century, the dam was completed in 1895 during British colonial rule.
3. The dam is a vital source of water storage, contributing to irrigation and drinking water supply.
4. The Periyar River, regulated by the dam, is a crucial water source for both agricultural and domestic purposes in the region.

**What is the dispute?**

1. The dam was constructed under the Periyar Lake Lease Agreement (1886) for a 999-year lease.
2. Kerala and Tamil Nadu argue about who owns and runs the dam. Even though the dam is in Kerala, it gives water to Tamil Nadu.
3. Kerala says the dam is not safe and wants a new one. But Tamil Nadu, after making the dam stronger, says it's safe.

**Importance of Dams**

1. Water Storage for agricultural and domestic Use
2. Irrigation for crop cultivation
3. Hydropower generation for electricity

4. Flood control to prevent flooding
5. Drinking water supply
6. Industrial water supply for manufacturing
7. Tourism opportunities
8. Aquaculture and fisheries
9. Navigation for water transport

### Importance of Dam Safety

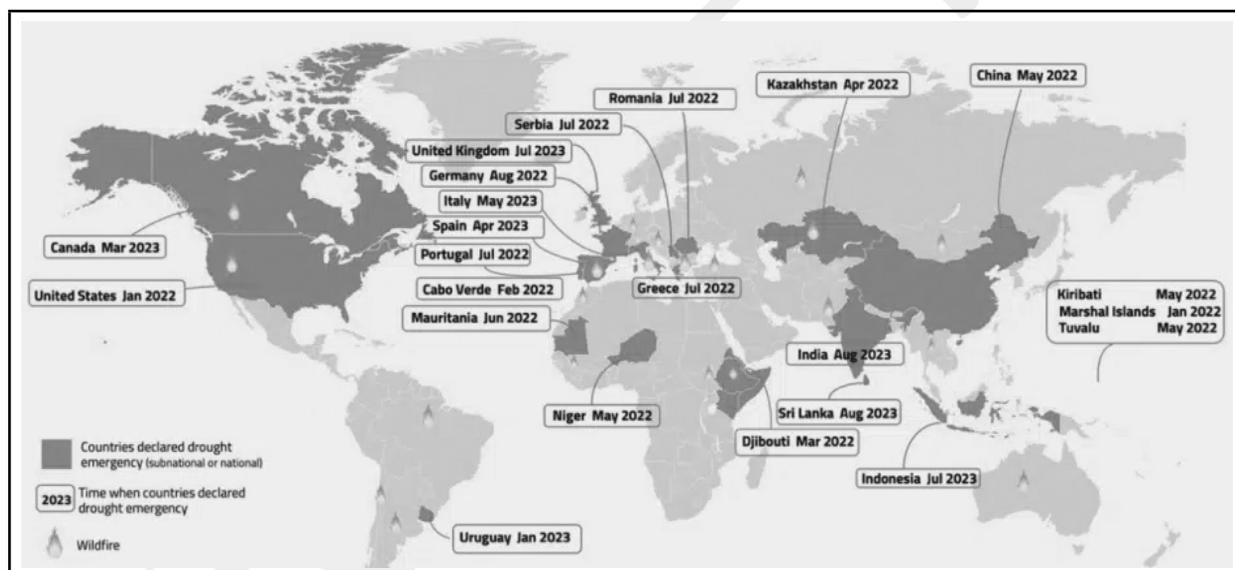
1. Protecting lives and property by preventing floods
2. Preventing environmental damage
3. Ensuring water supply for drinking water, agriculture, and industry.
4. Ensures the continuous and safe operation of hydropower plants.
5. Regular inspections and monitoring help to identify future issues with dam structures.
6. Emergency preparedness for the public helps to minimize the impact of unforeseen events such as weather conditions or earthquakes.

## 15. DROUGHT EMERGENCY DECLARED BY 23 COUNTRIES

According to the **Global Drought Snapshot 2023** report by the **United Nations Convention to Combat Desertification (UNCCD)**, a total of **23 countries, including India, officially declared drought emergencies either at the national or sub-national level in the 2022-23 period.**

### Defining Drought:

1. Drought is an extended period of low precipitation within the natural climate cycle and can manifest globally. Key Characteristics: It represents a gradual-onset calamity marked by insufficient rainfall, leading to a scarcity of water resources.



2. The India Meteorological Department (IMD) characterizes a meteorological drought in a specific region when the rainfall deficit is equal to or exceeds 25% of its long-term normal.
3. This classification is then subdivided into moderate and severe droughts based on the extent of the deficit.
4. The impacts of droughts extend across various domains, encompassing diminishing reservoir capacities, reduced agricultural yields, biodiversity loss, and potential famines. Additionally, regions heavily reliant on agriculture may experience significant economic repercussions due to the severity of droughts.
5. According to the Climate Hazards and Vulnerability Atlas of India by IMD, 87% of districts and 93% of the population are categorized as moderately to highly vulnerable.

### About UNCCD

1. In 1992, a resolution was adopted by the UN General Assembly, leading to the establishment of UNCCD in 1994 with its Headquarter in Bonn, Germany.
2. It stands as the sole legally binding framework established to tackle desertification and the impacts of drought.

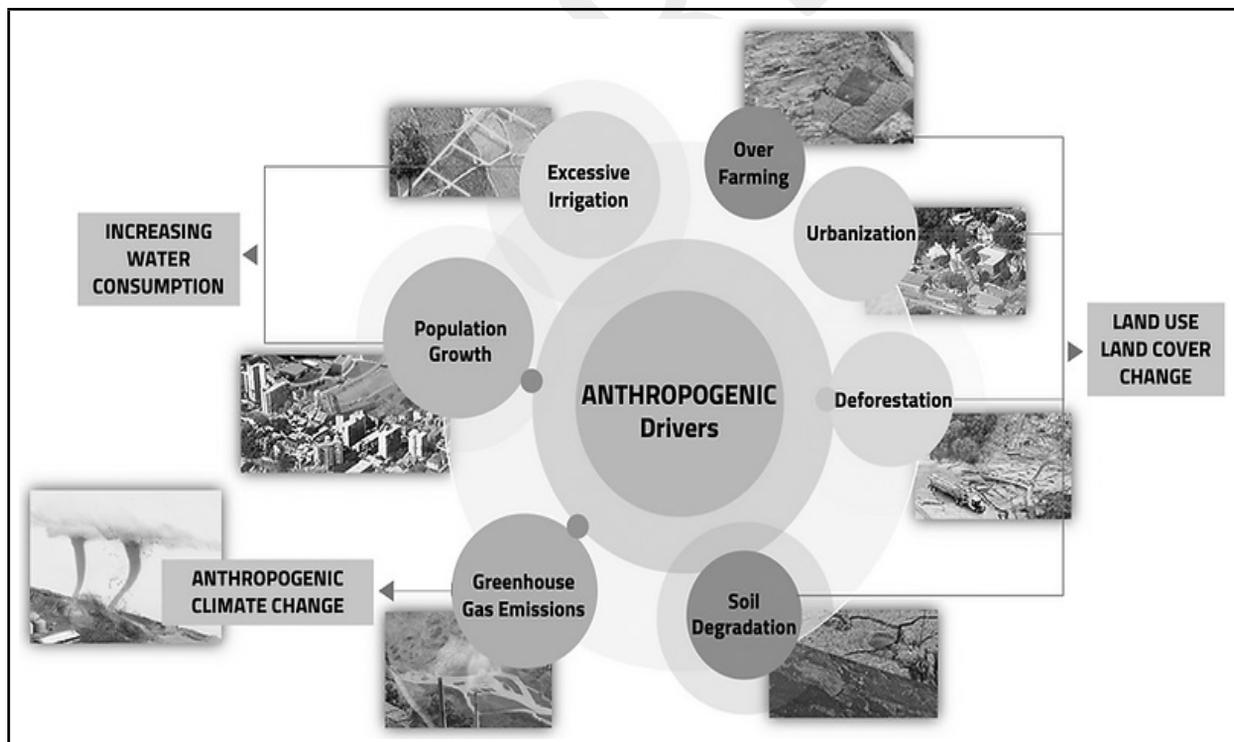
3. Its mission is to safeguard and restore our land, ensuring a future that is safer, equitable, and more sustainable.
4. It has 197 members including India.
5. The supreme governing body of this organization is the Conference of the Parties (COP), which convened its inaugural session in 1997 in Rome, Italy.

**Current Drought Impacts as Stated in the Report:**

1. **Global Ramifications:** The report, drawing data from 101 country Parties to the UNCCD, reveals that 1.84 billion individuals are affected by drought, with 4.7% facing severe or extreme conditions.
2. **Effects on Women and Children:** Compared to men, women and children face a risk over 14 times higher of succumbing to climate-fueled disasters, exposing them to additional vulnerabilities. Beyond direct threats to their lives, disasters pose various protection risks to women.
3. **Impact on Food Security:** By the end of December 2022, the ongoing drought had left approximately

23 million people severely food insecure in the Horn of Africa.

4. **Triggering Forced Migration:** Weather-related hazards, including storms, floods, and droughts, accounted for 98% of the 32.6 million new disaster-induced displacements in 2022.
5. **Effects on Primary Energy Production:** Notably, hydropower installations may be adversely affected as water scarcity hampers their proper operation.
6. **Consequences for Forests:** Droughts contributed to a 7.6% increase in deforestation compared to normal weather years.
7. **Agricultural Impact:** Over the past three decades, land degradation has resulted in a 0.4% annual reduction in global productivity for both irrigated and rainfed crops.
8. **Himalayan Glacier Impact:** Glaciers in the Himalayas have experienced substantial mass loss over the last 40 years, with the rate accelerating. In 2022, exceptionally warm and dry conditions exacerbated the mass loss for most glaciers.



**Recommendations from the Report:**

1. **Embrace Sustainable Development:** Opting for sustainable development can result in a 70% reduction in population exposure to drought compared to fossil-fuelled development.

2. **Expand Insurance Coverage for Drought-Related Losses:** With approximately 45% of global disaster-related losses insured in 2020, up from 40% between 1980 and 2018, there is room for further scaling up insurance coverage.

- Promote Rainwater Harvesting:** In urban areas, only about 15% of rainwater infiltrates the ground, while in rural areas, this figure rises to 50%. Encouraging rainwater harvesting offers an efficient method to store and reuse rainwater during drought periods.
- Harness the International Financial System:** Addressing poverty and mitigating gross inequality through the international financial system can prevent regional societal collapse driven by food insecurity and environmental degradation.
- Adopt Nature-Based Solutions:** Leveraging nature-based solutions has the potential to reduce carbon dioxide emissions by up to 25%.

**Implemented Initiatives:**

**On Global level:**

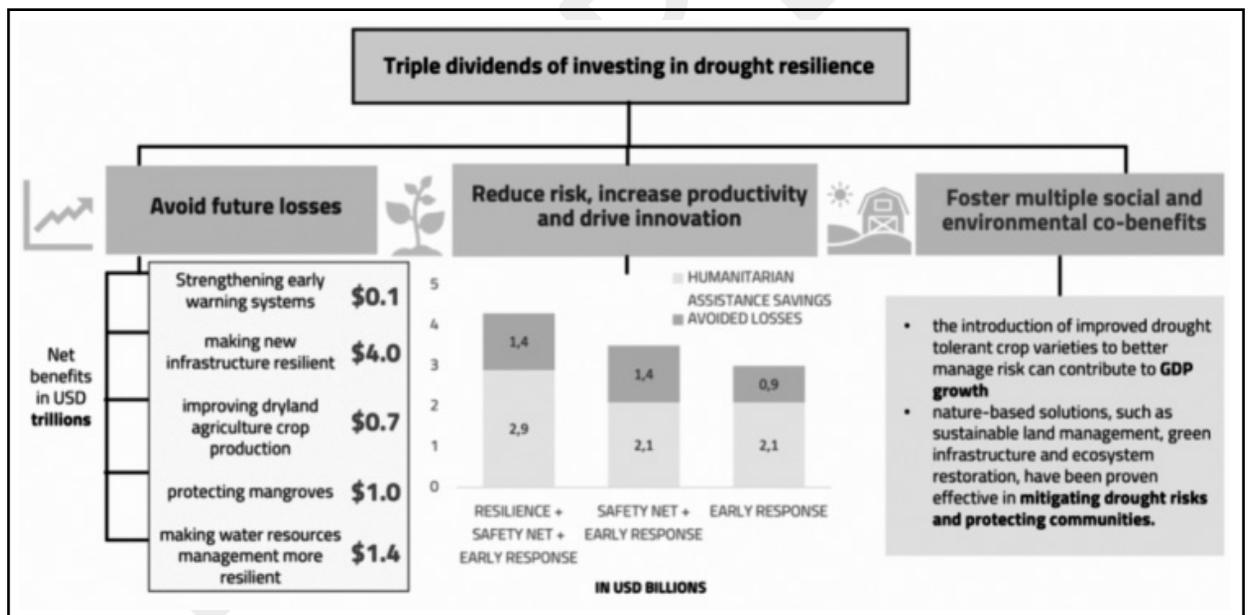
- “30x30” Target:** A collective agreement by 195 nations to protect and restore a minimum of 30% of Earth’s land and water by 2030, as per the Convention on Biological Diversity.
- Early Warning for All:** The United Nations Secretary-General has set a goal to establish

global coverage with early warning systems by 2027.

- International Drought Resilience Alliance (IDRA):** Launched during the UNFCCC COP27 Leaders’ Summit in 2022, this collaborative platform focuses on enhancing resilience to drought.
- UN Decade on Ecosystem Restoration:** Aiming to fulfill commitments to restore 1 billion hectares of land by 2030.

**On National level:**

- National Disaster Management Guidelines – Management of Drought:** Recommends a range of measures, including the implementation of an early warning system and capacity building.
- Manual for Drought Management 2016 (updated in 2020):** Released by the Union government, it incorporates the use of modern technology for monitoring and determining drought conditions.
- Centrally Sponsored Schemes (CSS) / Central Sector (CS) Schemes:** Includes initiatives like the Pradhan Mantri Krishi Sinchai Yojana and Rainfed Area Development Programme.



**16. HEROES OF THE DESERT: UN DECLARES 2024 AS INTERNATIONAL YEAR OF CAMELIDS**

United Nations (UN) has designated 2024 as the International Year of Camelids in order to emphasize the significant importance of camelids in the lives of people worldwide.

**About Camelids**

- Types:** dromedary camels, Bactrian camels, llamas, alpacas, vicuñas, and guanacos.
- Humps:** Dromedary camels have one hump, while Bactrian camels have two.
- Native Habitat:** dry areas in the Middle East and North Africa.
- Domestication:** Llamas and alpacas were tamed by Andean people for wool and as pack animals.

- 5. Camel Adaptations:** a thick coat and the ability to drink a lot of water, helping them survive in deserts.
- 6. Altitude Adaptations:** Llamas and alpacas adapted to high Andean altitudes with efficient breathing for lower oxygen levels.

#### Why are Camelids important?

- 1. Food Security and Nutrition:** providing milk, meat, and fiber to local communities.
- 2. Economic Growth:** They serve as transportation, producing organic fertilizer etc
- 3. Cultural importance:** in the Andean highlands and arid regions in Africa and Asia.
- 4. Sustainable Development Goals (SDGs):** SDGs related to fighting hunger, removing poverty, empowering women, and ensuring sustainable use of ecosystems.
- 5. Strength:** Camelids thrive in harsh environments and produce fiber and nutritious food even in extreme climates.

## 17. REDISCOVERY OF NAMDAPHA FLYING SQUIRREL IN ARUNACHAL PRADESH AFTER 42 YEARS

Recently, The Namdapha flying squirrel, missing for 42 years, has been sighted again in Arunachal Pradesh. It was last documented in 1981 in the Namdapha Tiger Reserve in Arunachal Pradesh's Changlang district.

#### About Namdapha flying Squirrel (Biswamoyopterusbiswasi)

- The Namdapha flying squirrel is a nocturnal (Active at night), arboreal (Living in trees) flying squirrel which is endemic to Arunachal Pradesh in northeast India.
- Protection Status:
  - IUCN Red List: Critically Endangered**
  - Wildlife (Protection) Amendment Act, 2022: **Schedule I**
- The major challenge in finding the Namdapha Flying Squirrel is that it looks very similar to the Red giant flying squirrel which is also distributed in the same habitat.

- 4. Habitat:** Occurs in dry deciduous Montane forests occupying moist forest tracts along streams.
- 5. The Namdapha flying squirrel** is presently threatened by habitat loss, Poaching and degradation, caused by clear-felling for human settlements, shifting agriculture, and the extraction of non-timber forest products.

#### Namdapha Tiger Reserve

- Namdapha Tiger Reserve was declared as the 15th Tiger Reserve of the country in 1983. It was declared a wildlife reserve in 1972, later declared a national park in 1983 and became a Tiger Reserve under the Project Tiger scheme in the same year.
- It is located in Arunachal Pradesh. The park lies between the Dapha bum range of the Mishmi Hills and the Patkai range.
- It has evergreen Forests, Moist deciduous forests, sub-tropical forests, Temperate Forests and Alpine biomes.
- It is named on a river which originates from Daphabum (Dapha is the name of hill, Bum means peak of hill) and meets Noa-Dehing river. The river flows in a north-south direction through the national park, hence the name Namdapha.

## 18. SNOW LEOPARD: KYRGYZSTAN'S NATIONAL SYMBOL

Recently, **Kyrgyzstan** has officially chosen the **Snow Leopard** as its **national symbol**. This decision shows that the country is dedicated to protecting nature and keeping a balance in the environment.

#### About the decision

- In Kyrgyzstan, the Snow Leopard is sometimes seen as a **spiritual being**, with folk beliefs attributing special qualities to this **majestic cat**. It is respected for its ability to navigate challenging mountainous terrain, reflecting qualities admired by the locals.
- Often referred to as the '**ghost of the mountains**,' it holds a special place in Kyrgyzstan's cultural heritage.

**About Snow Leopard**

<b>Range Countries</b>	<ol style="list-style-type: none"> <li>The Snow Leopard (<b>Panthera uncia</b>) is found in the mountainous regions of Central and South Asia.</li> <li><b>12</b> Range countries include <b>Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Pakistan, Russia, Tajikistan, and Uzbekistan.</b></li> </ol>
<b>Significance</b>	<ol style="list-style-type: none"> <li>The Snow Leopard is culturally significant, often revered in the traditions of countries like Kyrgyzstan, symbolizing strength and resilience.</li> <li>Ecologically, it plays a crucial role in maintaining the balance of its high-altitude habitat.</li> </ol>
<b>Threats</b>	<ol style="list-style-type: none"> <li>Depletion of its natural prey, hunting and poaching, conflicts with humans leading to killing, and the illegal trade of its fur and bones.</li> </ol>
<b>Conservation Status</b>	<ol style="list-style-type: none"> <li>The Snow Leopard is listed as “<b>Vulnerable</b>” on the International Union for Conservation of Nature (IUCN) Red List, indicating a high risk of extinction in the wild.</li> <li>Included in <b>Schedule I of Wildlife Protection Act (WPA), 1972</b> and <b>Appendix I of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</b></li> </ol>
<b>Global and Indian Population:</b>	<ol style="list-style-type: none"> <li>Global estimates suggest there are between <b>4k</b> and <b>6.5k</b> Snow Leopards in the wild.</li> <li><b>China</b> has the <b>highest</b> snow leopard population.</li> <li>In India, the population is estimated to be around <b>700-800</b> individuals.</li> <li><b>Hemis national park, Ladakh:</b> Snow leopard Capital of world</li> <li><b>State Animal:</b> Ladakh &amp; Himachal Pradesh</li> </ol>

**Conservation Efforts**

<b>Worldwide</b>	<ol style="list-style-type: none"> <li><b>Snow Leopard Trust:</b> An organization working to protect Snow Leopards and their habitat through community-based conservation programs.</li> <li><b>Global Snow Leopard and Ecosystem Protection Program (GSLEP):</b> Aimed to secure <b>20 landscapes</b> across the Snow Leopard range <b>by 2020.</b></li> </ol>
<b>India</b>	<ol style="list-style-type: none"> <li><b>Project Snow Leopard:</b> Launched by the Government of India in <b>2009</b>, it focuses on conserving the Snow Leopard and its high-altitude ecosystems.</li> <li><b>Community Involvement:</b> Many conservation initiatives involve local communities, recognizing their role in protecting Snow Leopards and reducing human-wildlife conflict. <b>Eg; Himal Sanrakshak</b></li> <li><b>Snow Leopard Population Count:</b> An important <b>step in 2019</b> was the introduction of the <b>First National Protocol</b> for enhancing population monitoring.</li> <li><b>Ministry’s Recovery Programme:</b> The Snow Leopard holds a critical position on the <b>Ministry of Environment, Forest &amp; Climate Change’s list of 21</b> critically endangered species targeted for recovery. This underscores the government’s commitment to addressing the conservation challenges faced by this majestic species.</li> <li><b>Snow Leopard Conservation Breeding Programme:</b> Padmaja Naidu Himalayan Zoological Park, West Bengal</li> </ol>

**19. INDIA’S FIRST ARCTIC WINTER EXPEDITION**

- Union Minister of Earth Sciences launches **India’s first winter scientific expedition to Himadri, the Arctic Research Station in Ny-Ålesund, Svalbard.**

**Significance of Winter Expedition**

- Allows unique observations during **polar nights** with **no sunlight for nearly 24 hours** and **sub-zero temperatures.**
- Enhances India’s scientific capabilities in Earth’s poles, focusing on Arctic insights related to **climate change, space weather, sea-ice and ocean**

**circulation dynamics, ecosystem adaptations,** etc.

3. Impacts weather and climate in the tropics, including monsoons.
4. India's Arctic research base, **Himadri, operational since 2008**, will host scientists throughout the winter. India joins a select group of countries operating Arctic research bases throughout the winter.
5. Research areas include **atmospheric, biological, marine, and space sciences, environmental chemistry, cryosphere studies, terrestrial ecosystems,** and **astrophysics**.
6. Recent years witness increased scientific interest in the Arctic region due to **climate change** and **global warming research**.

#### Impact of Warming on the Arctic

1. Arctic temperatures surged by around **4 degrees Celsius** on average in the last century, marking 2023 as the warmest year on record.
2. Arctic sea-ice has shrunk at a concerning rate of **13% per decade**, a finding by the **Intergovernmental Panel on Climate Change**.
3. Melting sea ice triggers **global repercussions beyond the Arctic**, influencing atmospheric circulation and sea levels.
4. Elevated tropical sea surface temperatures may **intensify tropical precipitation**, alter the **Inter Tropical Convergence Zone**, and raise the risk of **extreme rainfall events**.
5. Global warming-induced milder weather could make the Arctic more habitable, prompting a rush to exploit its resources, including minerals.
6. Nations may vie for control over Arctic trade, navigation, and strategic sectors as a result of these transformations.

#### India's Antarctic Presence

- **Dakshin Gangotri**, established in **1983** in **Antarctica**, is **now submerged**, while India's active stations, **Maitri** and **Bharti**, continue to contribute to polar research.
- Indian polar expeditions, encompassing both the Arctic and Antarctic, operate under the **MoES's PACER (Polar and Cryosphere) scheme**, led by the **National Centre for Polar and Ocean Research (NCPOR)** in Goa.

#### Key Facts

- Dakshin Gangotri is India's first scientific research base station in Antarctica.
- It was established in 1983 and is part of the Indian Antarctic Programme. The base is named after the Dakshin Gangotri Glacier and is located 2,500 kilometers from the South Pole. It is **now submerged**.
- India's active stations, **Maitri** and **Bharti**, continue to contribute to polar research.
- Indian polar expeditions, encompassing both the Arctic and Antarctic, operate under the **MoES's PACER (Polar and Cryosphere) scheme**, led by the **National Centre for Polar and Ocean Research (NCPOR)** in Goa.

## 20. WILDLIFE SANCTUARY IN NEWS

### 1. Shettihalli Wildlife Sanctuary

- Eco-Sensitive Zone Concerns:** The National Green Tribunal instructed the Karnataka Government to address delays in declaring Shettihalli Wildlife Sanctuary as an Eco-Sensitive Zone (ESZ).
- Impact of Delay:** Increased land use changes and encroachments, affecting the sanctuary's ecosystem.
- Location:** Located in Shimoga District, Karnataka.
- Ecological Significance:** Home to diverse wildlife including tigers, leopards, and elephants.

### 2. Binsar Wildlife Sanctuary

- First Tiger Sighting:** Remarkable discovery of a tiger at an altitude of 2250 meters.
- Location:** Almora district, Uttarakhand.
- Biodiversity:** Known for its rich wildlife and over 200 species of birds.
- Conservation Significance:** Indicates a healthy ecosystem and expanding tiger population.

### 3. Pong Dam Lake Wildlife Sanctuary

- Designation as Eco-Sensitive Zone:** Announced by the Union Ministry of Environment and Forests.
- Local Concerns:** Potential displacement of 58 villages, raising issues of sustainable development and community impact.
- Location:** Kangra District, Himachal Pradesh.
- Environmental Importance:** A key habitat for migratory birds and various endemic species.

## TIGER RESERVES IN NEWS

Feature	Satpura Tiger Reserve (Madhya Pradesh)	Kawal Tiger Reserve (Telangana)	Valmiki Tiger Reserve (Bihar)
Relevance in the News	Ancient rock painting discovered (10,000 years old) in		
Narmadapuram, MP	turns a haven for smooth-coated otters	Tiger population increase due to reduced human activity	
Geography/Location	Surrounded by Pachmarhi Hill Station, Bori Wildlife Sanctuary; Central India	Northeastern Telangana; Deccan peninsula-central highlands	West Champaran district; Bordering Nepal's Chitwan National Park and Gandak River
Rivers flowing through the reserves	Tawa, Denwa, Machak	Godavari, Kadam	Gandak
Flora	Tropical Dry Deciduous Forests (teak, mahua, aonla Trees) and Tropical Moist Deciduous Forests (sal, ebony, bamboo)	Southern Tropical Dry Deciduous Forest (teak, bamboo)	Moist mixed deciduous, Open-land vegetation, Sub mountainous semi-evergreen formation, Freshwater swamps, Riparian fringes, Alluvial grasslands, high hill savannah and Wetlands
Fauna	Tigers (over 100), leopards, gaur, spotted deer, sambar, sloth bears, wild boars	Tigers, leopards, nilgai, chousingha, chinkara, black buck, sambar, spotted deer, wild dog, wolf, jackal, fox, jungle cat	Tigers, leopards, gharials, elephants, crocodiles, spotted deer, hog deer, barking deer, sambar, sloth bear, common langur, wild boar, jungle cat, python, peafowl
Cultural Significance	Evidence of human settlements dating back 1500-10,000 years; rock shelters and caves	-	Rich heritage with settlements dating back to 6th century BCE; home to the Tharu tribe



## G. SOCIAL & CULTURE

### 1. CASTE BASED DISCRIMINATION IN INDIAN PRISONS

#### Context

The Supreme Court of India has asked the government and 11 states to respond to a petition claiming that prisoners are being unfairly treated based on their caste in jails.

#### What is Caste based discrimination?

Caste-based discrimination refers to the unjust treatment of individuals based on their caste or social class.

It happens when individuals are treated unfairly or denied opportunities, rights, or privileges based on their caste. This can impact various aspects of life, including education, employment.

#### Instances of Caste Based Discrimination Highlighted by the petition

The PIL (Public Interest Litigation) exposes instances from Madhya Pradesh, Delhi, and Tamil Nadu jails where cooking is allocated to upper castes, while “specific lower castes” are assigned small jobs such as sweeping and cleaning toilets.

State Prison Manual Sanctions	Issues Highlighted	Solutions
1. Rajasthan Prison Rules 1951	Giving tasks based on caste.	Revise rules to eliminate caste-based tasks. Promote equality in task allocation.
2. Palayamkottai Central Jail in Tamil Nadu	Caste-based division of inmates.	Implement policies to discourage caste-based separation of inmates.
3. West Bengal Jail Code	Giving ‘low-status’ tasks based on caste.	Change guidelines to ensure fair distribution of tasks to promote dignity for all prisoners.

#### Petition for Equality: Challenging Discrimination in Prison Systems

- The petition talks about a rulebook from **2003** called the **Model Prison Manual**. This rulebook guides how prisoners are treated based on safety, order, and programs in jail. The petition disagrees with sorting prisoners by their money, caste, or group.
- The petition argues that even if someone is in jail, they still have **basic rights** and should be treated fairly. It mentions a **decision by the Supreme Court in 1978** that supports the rights of people in jail.
- The petition strongly says we should **get rid of unfair rules** in the rulebooks of different states.

#### Supreme Court’s Observations

- Judges found that in states like Uttar Pradesh, Odisha, Jharkhand, Kerala, West Bengal, Madhya Pradesh, Andhra Pradesh, Maharashtra, Telangana, Punjab, and Tamil Nadu, the rules support treating people differently based on their caste and making them do tough jobs they don’t want to do.

- The SC has sent a notice to these states and the Union Territories, asking for a response within four weeks about the issues raised in the petition.

#### How is caste discrimination allowed in Indian jails according to the laws?

- Colonial laws like the **‘Prisons Act of 1894,’** are of outdated nature.
  - The Ministry of Home Affairs (MHA) reviewed ‘The Prisons Act, 1894,’ ‘The Prisoners Act, 1900,’ and ‘The Transfer of Prisoners Act, 1950.
  - This led to the development of **‘The Model Prisons Act, 2023.’** This new law is expected to improve the prison conditions and administration and protect the human rights and dignity of the prisoners.
- State-level prison manuals** were unchanged for a long time. They are **discriminatory** and divide duties like cleaning and sweeping to specific castes. Despite constitutional and legal provisions against untouchability, caste-based rules still exist in prisons.

3. The **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 (MS Act, 2013) bans manual scavenging** which involves manually cleaning and disposing of human waste from various sources. But it doesn't specifically address prison rules. Because of this, the rules in prison manuals that allow caste discrimination and manual scavenging in jails are not considered violations of the Act.

#### What is the Way Forward?

1. States should adopt the **2016 Model Prison Manual** that stresses on dignity and non-discrimination for prisoners.
2. **Courts should intervene** to eliminate discriminatory provisions, safeguarding fundamental rights and promoting equality in prisons.
3. Establish strong monitoring mechanisms to **track reform progress** and ensure accountability.
4. **Spread awareness** about the issue of caste-based discrimination in prisons through public campaigns and advocacy.
5. Conduct **sensitivity training for prison staff** to promote a culture of equality and eliminate biased behavior.

## 2. SCHEME FOR PROVIDING DRONES TO WOMEN

The government has approved a **Central Sector Scheme** for providing Drones to Women **Self Help Groups (SHGs)** from 2023-24 to 2025-2026.

#### What is a Central Sector Scheme?

1. A Central Sector Scheme is a type of government program in India where the central government provides all the funds and manages the implementation.
2. This is different from Centrally Sponsored Schemes, where both the central and state governments share the funding and responsibilities.

#### What is a drone?

1. A drone is like a small flying robot that you can control from the ground.
2. It can have a camera or sensors on it, helping it take pictures or do different tasks.
3. It is also known as the Unmanned Aerial Vehicle (UAV) which means an aircraft without a human pilot onboard.

#### What are Self Help Groups (SHGs)?

1. Self-help groups (SHGs) are small groups of people who come together to help each other out.
2. These groups usually consist of 10 to 20 members who share common interests or face similar challenges.

3. Members meet regularly to discuss and address issues, contributing money to create a common fund.
4. This fund can be used to provide financial help, especially for activities that generate income.

#### What is the scheme of providing drones to women SHGs all about?

1. This plan brings together different groups and departments to help farmers. It combines the efforts of
  - a. Agriculture & Farmers Welfare
  - b. Rural Development,
  - c. Fertilizer departments
  - d. Fertilizer Companies
  - e. Women Self-Help Groups (SHGs)
2. The scheme provides for:
  - a. **Training of SHG Members:** A person from the Women SHGs, who knows about farming and is at least 18 years old, will get special training for 15 days. This training is chosen by the State Rural Livelihood Mission and Fertilizer Companies.
  - b. **Helping Fertilizer Companies:** Fertilizer Companies will connect drone suppliers (companies that provide drones) with SHGs. They will also encourage the use of special fertilizers (such as Nano Urea and Nano DAP) with the help of drones.

#### How will this scheme be financed?

1. **Government Help:** The government will give most of the money (80%) needed to buy the drones, but it won't be more than Rs. 8 Lakh.
2. **Additional Funding through AIF:** If there's still some money left to pay, farmers can borrow it through the National Agriculture Infra Financing Facility (AIF). Also, there's a special provision to reduce the interest rate on the AIF loan by 3%.

#### Why this scheme is important?

1. **Helping Women Earn More:** It allows Women Self-Help Groups (SHGs) to make at least Rs. 1 lakh extra income every year. This is a big deal as it supports financial independence for women in rural areas.
2. **Bringing in New Farming Technology:** The scheme introduces advanced technology, like drones and special fertilizers, to farming. This makes farming more efficient and helps farmers grow more crops.
3. **Growing More Crops:** This is good for everyone because it means more food and more income for farmers.
4. **Cost Reduction for Farmers:** By using technology smartly, the scheme aims to help farmers spend less money on farming. This not only benefits the environment but also helps farmers save money on input costs.

### 3. UNDERSTANDING THE TRANSITION OF SLUM

#### Context

Analysis of transition of slums in India and its impact on government policies.

**Source:** Nipesh Narayanan's study on debates in Rajya Sabha from 1953-2014, looking at how the transition of slums have taken place.

#### Understanding Slums: Meaning and Features:

1. **Meaning:** Slums are areas in cities with a lot of people living close together with poor houses and living situations.
2. **Features:** They generally lack proper sanitation, clean water, reliable electricity, and other basic services. Slums often emerge in response to rapid urbanization, housing shortages, and socio-economic inequality or imbalance.

#### History of How People Saw Slums (Transition of slums):

1. **Early Thoughts (1950s-1960s):** First seen as a result of people moving because of the partition, leading to many people in one place.
2. **Laws and Government Response: Slum Areas Act, 1956:** Landmark legislation act enabling government intervention in slum areas.
3. **Change in Government Focus:** From getting rid of slums to making them better, From slum clearance to improvement and development, Focusing on basic amenities over demolition.

#### Change in Government and Laws

1. **1970s to Mid-1980s:** The story about slums changed from getting rid of them to seeing them as important parts of cities that need development and basic needs.
2. **City Planning:** City planning became important in dealing with slums, pushing them to the edges of the city.

#### Economic Perspective and Urbanisation Post 1985

1. **National Commission on Urbanisation:** Highlighted cities, including slums, as crucial for economic growth.
2. **Policy Shift:** Introduction of policies focusing on housing, land, finance, and infrastructure, reflecting a more holistic approach to slum redevelopment.

#### Data Driven Approaches and Modern Policies

1. **After 2001 Census:** Wider and more detailed understanding of slums, leading to special programs.
2. **Focus on Economic Growth:** Seeing slums as places that can grow economically, stressing on doing things efficiently.

#### Social and Economic Aspects of Slums

1. **Social and Economic Problems:** People living there often deal with poverty, no jobs, health problems etc.
2. **Government Programs:** Plans like Pradhan Mantri Awas Yojana aim to give affordable homes to people in slums.

#### What the Government Should Do

1. **Balancing Growth and Rights:** Need rules and regulations that balance city growth with the rights and needs of people in slums.
2. **Including Everyone in City Planning:** Focus on planning that includes slums in the bigger city plan.

#### Conclusion

The Transition in how we see slums in India shows a move from seeing them as problems to understanding their role in the city's life. This needs complete policies that look at the social and economic dimensions of people living in slums while including them in the bigger story of city development.

### 4. GENDER-RELATED KILLINGS OF WOMEN AND GIRLS

The United Nations Office on Drugs and Crime (UNODC) and the UN Women recently released a report named **Gender-Related Killings of Women and Girls (Femicide/Feminicide)**.

#### What is Femicide or feminicide?

1. Femicide or feminicide refers to the intentional killing of women or girls because they are female.
2. It's a severe form of gender-based violence happening globally.
3. This can include domestic violence, honour killings, and other acts of violence specifically targeting females. ("Honor killings" occur when families harm or kill someone, usually a woman because they think she did something shameful, like going against their traditions)
4. Some people believe men have special rights over women, and they want to enforce specific roles for each gender. This can include expecting men to be in control and discouraging certain behaviours from women.

#### What are the Key Findings from the Report?

1. **Increase in Female Homicide:**
  - a. "Homicide" is a term used to describe the killing of one person by another. Worldwide, approximately 89,000 women and girls lost their lives deliberately in 2022, representing the highest annual number in the last two decades.

- b. Despite a general decrease in worldwide murder figures in 2022 following a sudden increase in 2021, the occurrence of female homicides indicates no indications of reduction.
- 2. **Perpetrator of Violence:**
  - a. Women and girls who were killed by current or previous intimate partners make up an average of 63% of all female-related killings.
  - b. In 2022, around 48,800 women and girls worldwide lost their lives due to actions by their intimate partners or other family members.
- 3. **Regional Disparities:**
  - a. In **Africa**, women and girls face the **highest threat** of intentional killings by intimate partners or family members.
  - b. In 2022, the rate of female intimate partner/family-related homicides was:

Region	Africa	Americas	Oceania	Asia	Europe
Killing of women per 100,000 female population	2.8	1.5	1.1	0.8	0.6

- 4. **Situation in India:**
  - a. In the last ten years, gender-based killings in India have slightly decreased.
  - b. But problems like dowry-related deaths, honour killings, and witchcraft accusations are still happening. (Witchcraft accusations refer to the blaming or accusing of someone of practising witchcraft or magic.)
  - c. Maximum number of deaths are caused by issues related to dowry.

**What are the measures taken by India against Gender-Related Killings?**

- 1. **Commission of Sati (Prevention) Act, 1987:** Stops the tradition of forcing widows to burn themselves on their husband’s funeral pyre.
- 2. **Dowry Prohibition Act, 1961:** Says no to the practice of giving or taking dowry, preventing issues related to dowry, including deaths.
- 3. **Immoral Traffic (Prevention) Act, 1956:** Fights against human trafficking and forced prostitution, especially protecting women from exploitation. (Human trafficking is the trade of humans for the purpose of forced labour, sexual slavery, or commercial sexual exploitation.)
- 4. **Protection of Women from Domestic Violence Act, 2005:** Helps women facing abuse at home by providing legal protection and ways to get help.
- 5. **Provisions under the Indian Penal Code (IPC):** Sections like 376 address rape, and Section 304-B deals with dowry-related deaths.

**What is the United Nations Office on Drugs and Crime (UNODC):**

- 1. It is a specialized agency of the United Nations established to address issues related to drugs, crime, and terrorism.
- 2. It was established in 1997 and was named as a UNODC in 2002.
- 3. Its main job is to help countries work together to tackle issues such as drug trafficking, corruption, human trafficking, and organized crime.

**What is the UN Women?**

- 1. It is the United Nations entity dedicated to gender equality and the empowerment of women.
- 2. Established in 2010, UN Women works globally to advance women’s rights and gender equality in various aspects of life, including politics, economics, education, and healthcare.

**5. 10 Years of Sexual Harassment of Women at Workplace or POSH Act 2013**

**Introduction**

- This act was enacted based on the **Vishakha Guidelines (1997)** of the Supreme Court to ensure a safe and secure work environment specifically for women.

**What are Vishakha Guidelines?**

- 1. The Supreme Court had provided these guidelines in its **Vishakha and others v State of Rajasthan 1997** case.
- 2. The concern of these guidelines was to protect women from sexual harassment at workplaces in the country.
- 3. The guidelines were introduced because there was **no existing law** to prevent such instances.
- 4. The court referred to constitutional provisions such as **Article 15** which ends discrimination and international agreements like the **Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)** to provide these guidelines.

**What is the UN Convention on the Elimination of all Forms of Discrimination against Women (CEDAW)?**

- 1. It is an international agreement adopted by the United Nations in 1979.
- 2. It works to stop discrimination against women in various areas like politics, economics, and culture.
- 3. Countries that agree to CEDAW commit to taking legal measures to eliminate gender-based discrimination and report their progress regularly.
- 4. The convention is widely accepted globally and is a key tool for promoting women’s rights and equality.
- 5. In 1993, India ratified this convention. Ratification is the formal approval or acceptance of a decision, agreement, or treaty.

**Key Provisions of the POSH Act, 2013:**

- 1. Clear Definition of Sexual Harassment:** The Act clearly defines sexual harassment, including any unwelcome acts or behaviour of a sexual nature that makes the work environment uncomfortable.
- 2. Applicability:** It applies to all workplaces, including government, private, and non-governmental organizations, ensuring that protections are universal.
- 3. Internal Complaints Committee (ICC):** The act makes it compulsory for workplaces with more than 10 employees to establish an Internal Complaints Committee (ICC) to receive and address complaints of sexual harassment.
  - o ICC has the **powers of civil courts** for gathering evidence.
  - o It will be **headed by a woman** and must consist of a minimum of **4 members**.
- 4. Local Complaints Committee (LCC):** For workplaces with less than 10 employees, Local Complaints Committee (LCC) has to be created by each State in each district. It will act similar to the ICC.
- 5. The Time-frame provided for ICC/LCC:**

Initiate inquiry	within 7 days
Completion of Inquiry	within 3 Months
Maximum possible extension for enquiry	Upto 6 Months

**Challenges in Implementation:**

- 1. Non-Formation of ICC:** Some organizations don't set up the required ICC. And even if they do, they do not provide representation to the women members.
- 2. Lack of Centralized Data:** We don't have centralized data on women facing workplace harassment cases.
- 3. Accessibility Issues:** The Act is not easily available for female workers in the informal sector, making it less effective for them. (The informal sector is where businesses and jobs operate without much government oversight. It includes small businesses and street vendors, and people working in this sector usually don't have the same job security and benefits as those in formal jobs.)

**Other Initiatives for Women's Safety:**

<b>Sexual Harassment Electronic Box (SHe-Box)</b>	A platform for registering complaints related to sexual harassment.
<b>One-Stop Centres &amp; Women Helplines</b>	These centres and helplines provide quick help and support for women in difficult situations. They are set up and funded through the Nirbhaya Fund.

<b>Ujjawala Scheme</b>	It works to stop and deal with the trafficking of women and children for sexual exploitation in India.
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**6. PUNAURA DHAM PROJECT: GODDESS SITA'S BIRTHPLACE**

The government of Bihar has plans to make Punaura Dham in **Sitamarhi** district a big place for tourists. This place is believed to be where Goddess Sita was born.

**Key Cultural Aspects of Mithila:**

1. Mithila is a very old region with history from the **Vedic period (1500-500 BCE)**, and it was one of India's 16 great kingdoms called Mahajanapadas.
2. It covers parts of Bihar and Nepal, including places like Darbhanga and Madhubani.
3. Important rivers and mountains border Mithila, and it was ruled by the Videha Janak dynasty long ago.

**Language and Literature:**

1. People in Mithila mainly speak Maithili, a language from the Indo-Aryan family.
2. Vidyapati, a famous poet, wrote many poems in Maithili about love and devotion.
3. Maithili literature includes big stories, plays, local tales, and stories about saints and heroes.

**Cultural Heritage:**

1. Mithila is famous for **Madhubani** or Mithila **painting**, which uses bright colors and patterns.
2. These paintings often show stories from Hindu mythology, especially the Ramayana, and scenes from nature and community life.
3. Mithila Makhana, a special type of fox nut grown in Bihar and Nepal, has a GI tag, showing it's a unique product from that area.

**About Ramayana Circuit:**

1. Part of the Swadesh Darshan Scheme, it's one of 15 themed travel routes.
2. It includes places like Ayodhya in Uttar Pradesh, Sitamarhi in Bihar, and Rameshwaram in Tamil Nadu, all important in the story of Ramayana.

**About Swadesh Darshan Scheme:**

1. Started in 2014-15 by the Ministry of Tourism and Culture.
2. There are fifteen different tourist routes like the Buddhist circuit, Desert circuit, and Ramayana circuit.
3. Swadesh Darshan 2.0 focuses on managing tourist places. It's part of India's travel policy inside the country.
4. 30 cities in 15 states are part of this, including Dwarka in Gujarat and Gaya in Bihar.

## 7. LARGEST TABLA ENSEMBLE: TANSEN SAMAROH 2023

1. In December 2023, 1,282 tabla players who performed at the 99th International Tansen Samaroh in Gwalior in Madhya Pradesh entered the **Guinness World Records** for achieving the “largest tabla ensemble”.
2. In recognition of this achievement, the Madhya Pradesh government declared **December 25** as ‘**Tabla Day**’.

### About Tansen Samaroh/Tansen Music Festival

1. It’s a unique 4–5-day music festival, dedicated to the pillar of Indian music, the great Tansen.
2. The Department of Culture and the Government of Madhya Pradesh started to pay tribute to the Indian classical music **maestro, Mian Tansen**.
3. Rashtriya Tansen Samman is the highest honor in Indian classical music, recognizing significant contributions to the genre.

### About Mian Tansen

1. Tansen, a Navratna in Akbar’s court, founded Hindustani classical music, prevailing as a vocalist and composer.
2. He was titled Tansen by **Raja Vikramjit of Gwalior** and **Emperor Akbar gave him the title of Mian**.
3. **Teacher:** Swami Haridas and Muhammad Ghaus.
4. **Style:** Tansen’s compositions were based on Hindu Puranas and praise of Hindu deities like Shiva, Vishnu and Ganesha. In his composition he also employed Dhrupad style.
5. **Important contributions:** He composed Ragas such as **Bhairav, Darbari Todri, Darbari Kanada, Malhar, Deepak, Sarang** and **Rageshwari** which is considered as the foundation of classical music. He is also credited with popularising the central Asian ‘**Plucked Rabab**’.

## 8. AWARDS

### Indira Gandhi Peace Prize, 2023

- a. Indira Gandhi Prize for Peace, Disarmament, and Development for 2023 has been jointly awarded to **Daniel Barenboim and Ali Abu Awwad**.
- b. Both were honoured for their work in uniting the youth and people of Israel and the Arab World.

### About Indira Gandhi Prize for Peace, Disarmament, and Development:

- a. It has been conferred every year since 1986 by Indira Gandhi Memorial Trust.
- b. It consists of a monetary award of 25 lakh along with a citation.

### Sahitya Akademi Awards 2023

- a. The Sahitya Akademi announced the Sahitya Akademi Award 2023 in 24 languages.
- b. **This year’s Sahitya Akademi Awards recognized:** 9 poetry books, 6 novels, 5 short stories, 3 essays, and 1 literary study.

- c. The prize, presented as a casket with a written **copper plaque, a shawl**, and **INR1,00,000**, will be awarded to the recipients.
- d. Sahitya Akademi is an autonomous body under Ministry of Culture.
- e. The Award was founded in 1954.
  - This Sahitya Akademi Award is an annual literary recognition provided by India’s National Academy of Letters.
- f. The Sahitya Akademi award is the second-highest literary honour by the Government of India, after the Jnanpith award.
  - Other awards given by Akademi are Bal Sahitya Puraskar, Yuva Puraskar.

### The Booker Prize 2023

- a. Irish writer Paul Lynch has won the Booker Prize for his novel “Prophet Song”.
- b. The Booker Prize is the premier literary honour in the English-speaking world.

### About the Booker prize:

- a. The Booker Prize is a renowned literary honour presented yearly to the best novel in English published in the UK and Ireland.
- b. Established in 1969 by Booker McConnell, initially known as the Booker Prize for Fiction.
- c. In 2002, it became the Man Booker Prize through sponsorship by the Man Group.
- d. In 2019, the sponsorship ended, and it returned to its original name, the Booker Prize.

**Eligibility :** For the Booker Prize, a novel must be in English and published in the UK or Ireland for the first time in the award year.

A panel of five esteemed literary figures serves as judges, reading all eligible novels and shortlisting six.

## 9. KHELO INDIA PARA GAMES

The Prime Minister inaugurated the 3rd edition of Khelo India University Games (KIUG) virtually in Lucknow, Uttar Pradesh.

### About KIUG 2023

1. The symbol for the 3rd Khelo India University Games is Jitu, representing the Swamp Deer (Barasingha), the state animal of Uttar Pradesh.
  - The 1<sup>st</sup> edition of KIUG took place in **Odisha (2020)**, while the 2<sup>nd</sup> edition occurred in **Bangalore, Karnataka (2022)** (postponed from 2021 due to the Covid-19 pandemic).
2. Over 4750 athletes from 200+ universities will compete in 21 sports across **Varanasi, Lucknow, Gautam Buddha Nagar, and Gorakhpur**.
3. The Prime Minister highlighted how this event enhances unity promote the ‘**Ek Bharat Shreshtha Bharat**’ spirit.

### About the Khelo India Programme

1. Khelo India, meaning ‘**Let’s play India**,’ was introduced by the Indian government in **2017** to revive the sports culture.
2. The initiative aims to enhance sporting infrastructure and academies nationwide and is overseen by the **Ministry of Youth Affairs and Sports**.

3. Competitions include **Khelo India Youth Games (KIYG), Khelo India University Games (KIUG), and Khelo India Winter Games**, providing platforms for young talents.

**Significance:**

**1. Reviving Traditional Sports:**

- (a) Khelo India has been vital in restoring the glory of India's traditional sports.
- (b) The government grants scholarships to promote indigenous sports like **Gatka, Mallakhamb, Thang-ta, Kalaripayattu, and Yogasan**, preserving and popularizing them among the youth.

**2. Sports in Education:**

- (a) Khelo India supports the National Educational Policy 2020 by integrating sports into the curriculum.

**3. Women in Sports:**

- (a) Khelo India promotes women's sports, including the Khelo India Women's League.
- (b) With events in various cities, around 23,000 women athletes actively participate in the league.

**10. Government mandated ABPS for MGNREGA payments**

- 1. The Indian government **mandated** the use of the **Aadhaar-Based Payment System (ABPS)** for the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) payments **from January 1st, 2023**.
- 2. This decision was taken **to improve the efficiency and transparency** of the payment process.

**What is the Aadhaar-Based Payment System (ABPS)?**

- 1. **Introduction:** Initially voluntary in MGNREGA since 2017, ABPS became mandatory from January 1st, 2024.
- 2. **Mechanism:** ABPS uses the unique **12-digit Aadhaar number** of workers to **link their job cards and bank accounts**, creating a seamless payment channel.
- 3. **Integration:** It requires integration of Aadhaar details with the National Payment Corporation of India database.

**MGNREGA Overview:**

- 1. **Launched in 2005**, MGNREGA is one of the largest work guarantee initiatives in the world.
- 2. It aims to provide **100 days** of wage employment per year to adult members of rural households willing to do **unskilled work**.
- 3. As of now, there are about 14.32 crore registered job cards, with a significant percentage being active.

**Why the Government Mandated ABPS:**

- 1. **Direct Benefit Transfer:** ABPS facilitates direct transfer of wages to the workers' bank accounts, reducing delays.

2. **Eliminating Fake beneficiaries :** It helps in identifying and eliminating fake beneficiaries, ensuring that funds reach the rightful recipients (MGNREGA worker)

3. **Administrative Efficiency:** Make more efficient the process of wage distribution, making it faster and more reliable.

4. **Transparency:** Enhances transparency in transactions, allowing for better tracking and auditing of funds.

5. **Financial Inclusion:** Encourages workers to open bank accounts, promoting financial inclusion.

**Additional Benefits of ABPS:**

1. **Empowerment Through Banking:** By linking payments to bank accounts, workers get more control over their finances.

2. **Reduced Corruption:** Limits the possibility of corruption at various levels of fund distribution.

3. **Time-Efficiency:** Speeds up the process of wage payments, reducing the waiting period for workers.

4. **Record Keeping:** Simplifies the record-keeping process, making it easier to manage and audit.

**Technological Innovations in MGNREGA:**

1. **National Mobile Monitoring System (NMMS):** Improves transparency with real-time attendance and geotagged photos.

2. **National Electronic Fund Management System (NEFMS):** Facilitates direct wage transfers to beneficiary accounts.

3. **Geo Tagging of Assets:** Adds geographical data to media for public scrutiny.

4. **Job Card Updation:** Regular updates to remove invalid job cards.

5. **Drone Monitoring:** Employs drones for enhanced monitoring and data collection.

**Addressing Technological Challenges:**

1. **IT Infrastructure Improvement:** Upgrade digital facilities at gram panchayat levels.

2. **Digital Literacy Enhancement:** Educate workers about digital payment processes.

3. **Banking Facilities Expansion:** Introduce Banking facilities in unbanked rural areas.

4. **Official Training and Development:** Provide ongoing training on Aadhaar processes to local officials.

**Conclusion**

The implementation of the ABPS in the MGNREGS represents a significant move towards improving efficiency, reducing fraud, and ensuring transparency in wage distribution. This technological integration not only enhances the payment process but also promotes financial inclusion among rural workers, marking a progressive step in the administration of one of India's key social welfare programs.



## H. ETHICS

### 1. LABOUR ETHICS AND LONG WORK HOURS

#### Context:

- The **International Labour Organization (ILO)** in its report highlighted that among various work-related risks, **long working hours** is the leading cause of death among employees. This has started a debate on **Labour Ethics** around the world.

#### What is Labour Ethics?

- Labour ethics is about treating workers fairly and respectfully, making sure they are paid well, work in safe conditions, and are treated with dignity.
- It's about doing what's right for the people who work in a company or industry.
- The **Universal Declaration of Human Rights** says that everyone has the right to take breaks, have free time, and not work too much. It includes having time off and getting paid for holidays.

#### What are the Various Stakeholders involved in Labour Ethics?

Stakeholders	Interests of these Stakeholders
1. Employees	Work-life balance, Good work culture, Better senior-subordinate relationships and good working conditions.
2. Employers	Better organizational efficiency, Enhanced profits and sustainable human resource management
3. Management	Professional efficiency and satisfaction among the employees and employers.
4. Investors	Maximize returns on their investments, Investments in ethically and socially responsible businesses.
5. Labour Unions	Safer working conditions and reasonable work hours
6. Labour regulatory bodies	Enforcement of labour laws, promotion of the welfare of workers
7. Government	Promote Economic Growth and Human Development

#### What was the recent controversy of 70 hours of work?

- Recently, the founder of an IT firm suggested that young Indians should work for 70 hours a week.
- This sparked a discussion on how much time people should spend working.

#### What is the History of Work Hours in the world?

- Back in 1817, a guy named Robert Owen suggested that people should work for 8 hours, rest for 8 hours, and sleep for 8 hours – a balanced routine.
- Then in 1926, Henry Ford made the 40-hour workweek popular.

#### Why 70 Hours of Work is suggested for India?

- Demographic Dividend:** Some say that working longer hours could help India benefit from its young population.
- Nation Building:** Like after World War II, when Japan and Germany worked a lot to rebuild their countries.

- Learning and Skills:** Working more hours, especially when starting a career, can help people learn new things.
- Values Hard Work:** It's also seen as a way to show the importance of working hard, especially for young professionals.

#### What are the Ethical Concerns involved in long work hours?

- Violating the "Do No Harm" Principle:** When people work too much, it can make them feel anxious and depressed. This goes against the rule of not causing harm to others. Think of big accidents like Chernobyl or the Space Shuttle Challenger - they happened when people worked too much.
- Wealth over Health:** Some companies care more about making money than keeping their workers healthy. This can make young people sick. For

example, many young workers are getting sick more often because they have to work too much.

- 3. **Profit over principles:** Long work hours are against a sustainable work culture.
- 4. **Erosion of family and societal values:** When people work too much, it can make it hard for them to spend time with their families. It will make people excluded from society.
- 5. **Not Treating Everyone Fairly:** Some companies make it so that only a few people get good jobs, and this can leave out women. This is not fair and goes against the idea that everyone should have the same opportunities to work.

**What are the Ethical Arguments in favour of long working hours?**

**1. Situational Ethics:**

- a. Sometimes, during emergencies like pandemics or wars, there might not be enough people to do essential jobs. In these situations, working long hours could be seen as a way to keep things going and help everyone.
- b. While it's about helping others in tough times, we need to make sure that people working extra hours are not being taken advantage of and that their well-being is considered.

**2. Utilitarian Ethics:**

- a. The idea here is that if everyone works longer, it could make things better for everyone. It might make companies and even whole countries more competitive and efficient.
- b. But, we need to be careful not to overlook the well-being of individuals. It's about finding a balance where the overall good is achieved without causing harm to individuals.

**Way forward:**

**1. Governments:**

- a. **Enforce Labor Laws:** Make sure that the laws about how many hours people can work are followed. This includes laws like the Factories Act and the Motor Transport Workers Act.

- b. **Expand Legal Framework:** Make rules for industries that don't have laws about work hours yet.
- 2. **Businesses:**
  - a. **Take Care of Employees:** Companies should invest in things that put wellbeing of employees at priority. This can include things like healthcare insurance, paid time off, and leaves for new parents.
- 3. **Employees:**
  - a. **Manage Time Better:** People should improve their time management skills to balance their work and personal life.
- 4. **Upskilling:**
  - a. **Learn New Skills:** People should learn new things to become better at their jobs. This also helps when there aren't enough skilled workers.
- 5. **Collaboration:**
  - a. **Work Together:** Everyone - the government, companies, and workers - should work together. They can create rules and a culture that makes work good for everyone, not just about working a lot.

**2. INDIVIDUAL SOCIAL RESPONSIBILITY**

According to the **EdelGive Hurun India Philanthropy List 2023**, about 119 Indian business tycoons donated Rs 5 crore or more in the Financial Year 2023 which accounts for **Rs 8,445 crore** for philanthropic activities. This highlights the role Social Responsibility can play in society for its upliftment.

**What is Social Responsibility?**

- 1. Social responsibility is a **moral guide** for both individuals and groups where they try to do things that help everyone and not do things that could hurt society or the environment.
- 2. It includes the **principle of the Triple bottom line** which focuses on "**people, planet, and profit**". It says that achieving profit does not require harm to the planet or the exploitation of people.
- 3. Generally, Social responsibility is seen in **2 aspects:**
  - a. Individual Social Responsibility (ISR)
  - b. Corporate Social Responsibility (CSR)

**What is the difference between ISR and CSR?**

Individual Social Responsibility (ISR)	Corporate Social Responsibility (CSR)
Personal commitment and actions taken by individuals to contribute to societal well-being.	Organizational initiatives and actions taken by corporations to contribute to societal well-being.
It consists of Individual decisions and voluntary contributions only.	It consists of Corporate entities, Businesses and Large firms. For example, campaigns like "Bottles for Change" by Bisleri, address a broader audience.

Its impact is on a smaller scale, primarily affecting the individual and immediate surroundings.	It has the potential for a broader and more significant impact, influencing entire communities, industries, and ecosystems.
It is driven by personal values, ethics, and a sense of duty.	It is driven by ethical considerations and public relations.
It is not always be publicly communicated and are often a private and personal commitment.	Companies often communicate their CSR initiative through various media and annual reports.

### Why is there a need of more ISR in India?

- 1. Public Sector Dominance:** 95% of the social spending in India is done by the government. ISR is needed for individuals to also contribute and share the responsibility.
- 2. Sustainable Development Funding Gap:** India doesn't have enough money to achieve sustainable development goals. ISR is necessary for individuals to contribute and fill this funding gap.
- 3. Resource Redistribution:** Even with economic growth, there are still big gaps between rich and poor in India. ISR can help by investing and distributing resources where they are needed the most.
- 4. Environmental Sustainability:** ISR practices, like reducing waste and living sustainably, can help protect the environment and fight climate change.
- 5. Technology Development:** ISR can play a role in developing technology, making sure everyone has access to it, and helping more people be a part of the financial system.

### What are the Ethical Considerations regarding ISR?

- 1. Voluntariness and Autonomy:** When doing ISR activities, it's important to let people choose freely. They should decide if they want to be a part of it or not.
- 2. Alignment with Personal Values:** Actions taken should align with an individual's personal values and beliefs.
- 3. Cultural Sensitivity:** ISR activities should understand and respect the local culture. Working together with the community is essential for a good relationship.
- 4. Empowerment:** Ethical ISR is about helping communities become strong and self-sufficient. It's not just about giving things; it's about finding long-lasting solutions that don't create dependency.
- 5. Outcome-oriented:** Individuals should check if their ISR contributions are making a positive

impact. If not, they should try different ways to make sure it helps as much as possible.

### Conclusion:

- Individual Social Responsibility (ISR) is a powerful way to bring positive changes to communities and society. Doing it ethically means being careful and committed to making choices that help everyone and make the world a better place for now and the future.

## 3. ETHICS OF NUDGE

- Recently, **Pran Vayu Devta Pension Scheme** is launched by the **Haryana government** to offer **pensions to trees** aged 75 years or older located on the property of people living in Haryana.
- The objective of the scheme is to bring behavioural change among the people by nudging them towards conserving and protecting ageing trees and the environment.

### What is Nudging?

1. Nudging is like giving a gentle push to make changes in the behaviour of people without telling them what to do directly.
2. People's choices are often swayed by how their minds naturally work (cognitive biases) and how they feel (emotions). Nudging tries to make use of this.
3. Nudges are gentle pushes that use tricks our brains play on us to guide us toward better choices.
4. These nudges involve small changes in how information is shown or choices are presented to help us make decisions that are good for our health, finances, or the environment.
5. For Example, in the Swachh Bharat Mission, a nudge might be putting up signs or messages in public places that say things like "Keep it Clean" or "Dispose of Waste Properly." These signs gently encourage people to take care of their surroundings without telling them what to do directly.

**What are the Different Types of Nudging?**

Types of Nudging	Explanation and Examples
1. <b>Constructive comparison</b>	This involves presenting information in a way that encourages individuals to compare options and choose the one that aligns with their goals. For example, showing energy consumption comparisons between different appliances can nudge people to choose more energy-efficient options.
2. <b>Reminder</b>	This can be as simple as sending reminders for regular health check-ups or reminders to complete certain tasks.
3. <b>Default options</b>	Setting default options can influence decision-making. For instance, in organ donation, if the default option is to be a donor (with the option to opt-out), more people may choose to donate organs compared to a system where individuals have to actively opt-in.
4. <b>Warning</b>	This is common in health contexts, such as cigarette packages displaying warnings about the risks of smoking.
5. <b>Visual Cues</b>	Using visual elements, like symbols or images, can be a powerful nudge. Placing a trash bin in a location with a clear "Keep Clean" sign is a visual cue that encourages people to dispose of their trash properly.

**What is the Significance of Nudging?**

- Promote law and order:** Experience has shown that signs reminding people to follow rules, used by government "Nudge Units," help reduce law violations.
- More Effective:** Nudging works better because it understands how people think. Placing healthy food at eye level in a cafeteria is more effective than telling people to eat well.
- Freedom of Choice:** Unlike strict rules, nudges, such as changing default options, respect your freedom to choose while encouraging better actions.
- Cost-effective:** Nudges, like using signs, are simple and affordable, making them cost-effective compared to expensive traditional methods.
- Evidence-based:** Nudging is based on what studies show works. Using smiley faces on recycling bins is evidence-based, as it encourages people to dispose of their waste properly.
- Diversity:** Nudging can be adjusted for different situations. For instance, using symbols and colors that reflect local traditions and values is a diverse way to nudge people to care for their surroundings.

**What are the ethical concerns with Nudging?**

- Goals of the Nudger:** We are worried if the person nudging us has selfish intentions, like trying to sell more things without caring if it's good for us.
- Autonomy of the nudged:** It's a concern when nudges try to control us instead of helping. Imagine if someone made choices for you without asking what you really want. It exploits the irrationality of people.

- Effects of nudges:** A nudge usually doesn't make people think deeply, so it's not very likely to change what they believe or how they act in the long run. Sometimes, nudges might even make people unhappy because they feel like their choices are being limited.

**What should be the nature of Ethical Nudging?**

**How to make Nudging ethical?**

- Transparency:** Nudges should be clear and not hidden. They should always look out for what's best for the people being nudged and match their values.
- Autonomy:** Nudging should think about what each person prefers when deciding what to nudge them about. For Example, economically underprivileged groups may benefit from nudges that help them avoid unnecessary bank fees or high-interest loans more than those designed to increase savings.
- Beneficence:** Nudging should try to make things better for people and society. It should never take advantage of people's weaknesses, like not understanding things well, feeling emotional, or having less money.
- Sensitivity:** Nudges need to be sensitive to different cultures and consider the diversity of values, norms, and beliefs within a population.
- Option to opt out:** People should be able to say "no" to nudges if they want. This way, everyone's values are respected.

**Conclusion:**

- The ethics of nudging requires finding a balance between helping people and society while respecting everyone's rights. Good and fair nudging should always be clear, aim to do good and treat everyone fairly.



## I. ESSAY

### POETS ARE THE UNACKNOWLEDGED LEGISLATORS OF THE WORLD

It was the year 1905 and the Swadeshi Movement had just been launched. It was a step to fight the mighty British and show them the true power of the Indian populace. However, the initial participation by Indians was lukewarm. Even enthusiastic participants were slowly losing courage and morale. In such grim times, Rabindranath Tagore wrote his poem 'Ekla Chalo Re'. He inspired the people to keep on fighting and not give up, through the powerful lines, 'Jodi tor daak sune kue naa aase, tobe ekla chalo re' (If no one comes on your call, you must walk alone.)

This not only inspired people to rise against the British, but also gave birth to a new generation of poets - Rajnikanta Sen, Dwijendralal Ray and Subramania Bharti. They wrote moving poetry, which filled their readers with patriotism and the strength to fight and take on the mighty British empire. Ultimately, they succeeded and India won freedom on the stroke of midnight hour, on August 15, 1947.

Thus, we see that poetry is not just a means for our entertainment. Rather poets have a remarkable ability to bring about changes in the all spheres of our society. It is for this reason that one can find renowned poets inspiring generations and motivating the people throughout space and time. From the bhakti movement in Medieval India to the French Revolution three centuries ago, the contribution of poets cannot be overstated. It is also for this reason that we have the age-old adage - "The pen is mightier than the sword."

#### Poets as legislators

Elections take place in a democracy periodically. The people elect their representatives, who become part of the legislature and thus, become the legislators. What exactly do these legislators do? They frame laws, lay down the formal rules of conduct that would guide the society and also respond to the grievances of the population by enacting laws.

In a way poets do the exact same thing, albeit not through formal enactments. If observed from a philosophical point of view, their words act as a guide to life. For instance Kabirdas wrote-

**"Kaal kare so aaj kar, aaj kare so ab,  
Pal me parley hoyegi, bahuri karega kab."**

**(There is no time like the present to complete tasks.)**

This couplet acts as a guide against procrastination and instructs us to finish all our tasks on time. Similarly in the English language we have the proverb, "A stitch in time saves nine" conveying the same meaning. Recently this lesson, on punctuality and time, saved Odisha from Cyclone Amphan, as it planted mangroves on its coastline early on. Conversely West Bengal having not adhered to this dicta saw great devastation.

From a political perspective, poets inform the reader about the state of things in the society and what changes need to be brought about. They broaden our horizons and enable us to see an issue from multiple perspectives. Poets like Eknath, Tukaram and Ramdas are a case in point. They wrote 'abhangas' in Marathi to highlight the caste inequalities and promoted the message of unity of all. Even the Sufi saints like Salim Chishti and Bhakti saints like the Ravidas and Dadu Dayal propounded universal brotherhood. This message got deeply integrated into the Indian society and in time even became a part of our constitution, in the form of Articles 14-18.

From a social point of view, poets make us aware of the social ills that are affecting our society. The 'Nightingale of India' Sarojini Naidu highlighted through her works the plight of women. Kahlil Gibran, John Keats and William Wordsworth taught us the importance of not being materialistic and enjoying the little things in life. Even in the movie

'Gully Boy', the story of a slum dweller is highlighted, who by writing raps about his poverty and class discrimination, becomes a superstar.

From a historical point of view, poets and their creation also shape our opinion about historical personalities and events of their period. For instance the Allahabad Prashasti of Samudragupta by Ravikirti, eulogises the reign of the emperor as one of great progress. As historian Ram Guha notes 'history is the best guide for the future', these poetic descriptions allow us to note lessons from history. These lessons can then serve as guidelines for future law making. But the question that now remains is-why are they unacknowledged?

### **The Sad Lack of Acknowledgement**

Poets remains unacknowledged because their contributions to bring about changes in the society are never explicitly appreciated. Their works are always thought of as reflecting the creativity of the individual and not as a deep analysis of the state of the society. Their works are seldom considered to be didactic. They are thought of as something to be read in leisure.

In doing so what we miss is that these 'works of leisure' do have a deep impact on our minds. Consequently, we often give a thought to the issues brought to light by them and our behaviours alter when we read poetry. It is due to this great influence that throughout history we find instances of poets being sent to jail, being deported or being censored. Dictators and colonialists realised this might of the pen. Consequently, in all the colonies, we see censorship laws like the Vernacular Press Act of India being enacted.

### **Poetry in Contemporary times**

Poems communicate a lot in few words. They use metaphors and imagery making their compositions both an interesting read and an inspiring piece. They use simple and even vernacular language to deeply connect with their readers. Ramanand and Tulsidas being stellar examples of the same. The reason behind their wide acclaim was the use of the Awadhi and Braj Bhasha, making their message crystal clear to the common man.

So, it is true that poets are the unacknowledged legislators of the world. These legislators have a very important role to play today. The world is witnessing a host of crisis in almost all the dimensions. Politically, authoritarian countries like China are rising. A state of war has begun in the Middle East. Economically, nations have begun their march towards deglobalisation. Environmentally, climate change is on the anvil and even our societal ethics are degrading.

Poets, our 'unacknowledged legislators' need to step up. They need to guide our society by telling us what is right and what is wrong. They need to highlight what needs to be done and inspire us to action. Their power is in the nature of change that poets bring about. Such change is internalised by people and followed without anger or resentment. This makes such change more permanent than any formal laws. Poets need to discharge this 'dharma' of theirs because of the responsibility that society has put on them. While discharging such great responsibility, our poets must remember that

**“What laws can't do, emotions can,  
What legislators can't do, poets can.”**



## J. SCHEME

### 1. PALNA SCHEME

In December 2023, the Union Women and Child Development Ministry aims to establish 17,000 creches in Anganwadi centres across the country under the 'Palna' scheme (means 'to nourish').

#### About the Palna Scheme:

1. The Palna Scheme, previously known as the **National Creche Scheme**, is a **centrally sponsored** initiative by the Ministry of Women and Child Development.

The Scheme is part of **Samarthya** which is a sub-component under **Mission Shakti**.

#### Objectives:

1. To provide day-care facilities for children (6 months to 6 years) of working mothers in the community.
2. To improve nutrition and health status of children.
3. To promote physical, cognitive, social and emotional development (Holistic Development) of children.
4. To educate and empower parents /caregivers for better childcare.

#### Creche

A creche is a facility which enables parents to leave their children while they are at work and where children are provided stimulating environment for their holistic development. Crèches are designed to provide group care to children, usually up to 6 years of age, who need care, guidance and supervision away from their home during the day.

#### Focus of the scheme:

The scheme focuses on 2 types of creches:

1. **Anganwadi-cum-Creches:** These centres combine existing Anganwadi services with dedicated creche facilities. This approach aims to holistically address the needs of both mothers and children in one convenient location.
2. **Stand-alone Creches:** The creches which were running under the erstwhile National Creche Scheme have been included as Stand Alone Creches.

#### Target group:

The scheme focuses on children of 6 months to 6 years, of working women in rural and urban areas who are employed for a minimum period of 15 days in a month, or six months in a year.

#### Implementing Agencies:

Implementation shall be affected through the respective State Governments. These State Governments in turn could implement the Scheme through other suitable voluntary/ non-governmental organizations, if required. The State Government will run the crèches as per the Standard Operating Procedure (SOP).

#### Benefits:

Institutionalization of day-care centres, formalization of India's Care Economy, and ensuring safety, health, and nutrition benefits for children.

#### About Mission Shakti:

1. Focused on women's safety and empowerment.
2. It comprises of two sub-schemes:
  - (a) **Sambal** : Addressing safety and security with initiatives like One Stop Centre and Women Helpline.
  - (b) **Samarthya**: focusing on women's empowerment through programs like **Ujjwala** and **Swadhar Greh**.

### 2. Raising and Accelerating MSME Performance (RAMP) scheme

In December 2023, the Union Minister for Micro, Small & Medium Enterprises (MSME) launched **3 sub-schemes** under the RAMP programme.

#### About RAMP Programme:

1. Launched in 2022.
2. RAMP is a **World Bank-assisted Central Sector Scheme**.
  - Central Sector Schemes are those that are **implemented** by a **central agency** and **100%** funded by the center on subjects within the union list.
3. It aims to improve the performance of MSMEs in India.

**Objectives:**

1. Improving access to the market and credit for MSMEs.
2. Strengthening institutions and governance at the central and state levels.
3. Improving centre-state linkages and partnerships.
4. Addressing issues of delayed payments.
5. Making MSMEs environment-friendly.

**Nodal Ministry:** Ministry of Micro, Small and Medium Enterprises (MSME)

**Components:**

1. An important component of RAMP is the preparation of Strategic Investment Plans (SIPs), in which all states/UTs will be invited.
2. The overall monitoring and policy overview of RAMP would be done by an apex **National MSME Council**.

**Implementation Strategy:**

The disbursement of funds from the World Bank towards RAMP would be made on fulfilling the following Disbursement Linked Indicators:

1. Accelerating MSME Sector Centre-State collaboration.
2. Enhancing effectiveness of the Technology Upgradation Scheme (**CLCS-TUS**).
3. Strengthening the Receivable Financing Market for MSMEs.
4. Enhancing Effectiveness of Credit Guarantee Trust for Micro and Small Enterprises (CGTMSE) and “Greening and Gender” delivery.

**3 Sub schemes under RAMP:**

1. **MSME Green Investment and Financing for Transformation Scheme (MSE GIFT Scheme):** It aims to help MSMEs adopt green technology with interest subvention and credit guarantee support.
2. **MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme):** The initiative aims to provide credit subsidies for circular economy projects, aiming to achieve zero emissions in the MSME sector **by 2070**.
3. **MSE Scheme on Online Dispute Resolution for Delayed Payments:** The initiative aims to integrate legal support with advanced IT tools and Artificial Intelligence to mitigate delayed payments for Micro and Small Enterprises.

**Implementing agencies of the sub-schemes:**

Small Industries Development Bank of India (**SIDBI**) for MSME GIFT and MSME SPICE schemes and National Informatics Centre Services Inc. (for NICSI) for MSE ODR scheme.

**Benefits:**

1. To address the generic and COVID-related challenges in the MSME sector.
2. The program aims to improve capacity building, skill development, quality enrichment, technological upgradation, digitization, outreach, and marketing promotion in areas that have been under-addressed.
3. RAMP will complement the **Atma Nirbhar Bharat** (self-reliant) **mission** by promoting innovation and enhancement in industry standards, practices and provide the necessary technological inputs to the MSMEs to make them competitive and self-reliant, increase exports, substitute imports, and promote domestic manufacturing.

**3. Sukanya Samriddhi Account Scheme (SSAS)**

In December 2023, the Union government decided to raise the returns on the Sukanya Samriddhi Account Scheme (SSAS) from 8% to 8.2%.

**About SSAS:**

1. **Definition:** SSA Scheme is a small deposit scheme of the Government of India meant exclusively for a girl child.
2. **Launched:** 22nd January 2015 as a part of the **Beti Bachao Beti Padhao** campaign.
3. **Aim:** To meet the education and marriage expenses of a girl child.
4. **Operated:** It is operated through all Post Offices, branches of Public Sector Banks and three Private Sector Banks viz. HDFC Bank, Axis Bank and ICICI Bank.

**Eligibility of SSAS:**

1. The guardian can open the account immediately after the birth of the girl child till she attains the age of 10 years.
2. Only one account is allowed per child.

3. An account under this Scheme may be opened for a **maximum of two girl children in one family**. However, exceptions allow opening more than two accounts for twins or triplets born in the first or second order, supported by an affidavit and birth certificates.
4. Documents required for opening an account:
  - (a) Sukanya Samridhi Account Opening Form.
  - (b) Birth certificate of a girl child.
  - (c) Identity proof (as per RBI KYC guidelines).
  - (d) Residence proof (as per RBI KYC guidelines).

#### Salient Features of SSAS:

1. An account can be opened in the name of a girl child till she attains the age of 10 years.
2. Only one account can be opened in the name of a girl child.
3. Account can be opened in Post Offices and notified branches of Commercial Banks.
4. Birth certificate of a girl child in whose name the account is opened shall be submitted.
5. The account may be opened with a minimum initial deposit of two hundred and fifty rupees and in multiples of fifty rupees thereafter and subsequent deposits shall be in multiples of fifty rupees subject to the condition that a minimum of two hundred and fifty rupees shall be made as deposit in a financial year in one account.
6. The total amount deposited in an account shall not exceed Rs 1,50,000 in a financial year.
7. The account can be transferred anywhere in India from one post office/Bank to another.
8. The account shall mature after 21 years from the date of opening or on marriage of the girl child under whose name the account is opened, whichever is earlier.

#### Benefits of SSAS:

1. Higher Interest Rate.
2. Tax Benefit under Section 80C.
3. Payment on maturity to a girl child.
4. Interest payment even after maturity if an account is not closed.
5. Transferable anywhere in India.
6. Even a girl child can operate the account after she attains the age of 10 years.
7. Deposits may be made in the account till the completion of a period of fifteen years from the date of opening of the account.

## 4. Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)

The Government of India has decided to give free food grains to more than 81 crore people **for next 5 years**, beginning on **January 1, 2024**. This is part of the PMGKAY scheme.

#### Cost of the Scheme:

The cost of this huge plan is estimated to be around Rs. 11.80 lakh crore in five years. It's **one of the biggest programs in the world** to make sure people get enough food and stay healthy.

#### Why is it Important?

Prime Minister wants to ensure that every person in India has sufficient food. This is very important for the upcoming five years, known as **'Amrit Kaal,'** which aims at building a stronger and more advanced India.

#### Benefits for the People:

Individuals will receive free rice, wheat, and other grains. This will help the poorer and less fortunate by making sure they have food and by easing their financial burden.

#### Distribution Method:

These food grains will be given away at no cost at over **500,000 Fair Price Shops** all over India. Under the **'One Nation One Ration Card'** scheme, people can pick up their food from any shop, which is very helpful for those who travel within India for work.

#### Saving Money:

The government will bear the cost of these food grains. For instance, a family in the **Antyodaya scheme** would save a lot because **35 kg of rice or wheat**, which used to cost them money, is now free.

#### Overall Impact:

The Government of India is committed to ensuring that all citizens have access to enough food. This decision marks a significant step towards achieving this goal, showing the government's strong commitment to food and nutrition security in the country.

This decision is crucial as it will make sure that people in India, especially those in need, have enough food. It is a significant move towards making India a healthier and stronger nation.