# NEXT IAS
# THE CRUX

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Compilation of UPSC relevant news from 1st November to 30th November 2024

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# Test Yourself

# 75th ANNIVERSARY OF INDIAN CONSTITUTION

On 26th November 2024, India celebrated the 75th anniversary of the adoption of its Constitution.

## About:

- In 2015, the Government of India declared November 26 as Constitution Day (Samvidhan Divas) to honor this historic event. Constitution Day promotes awareness of **constitutional values, rights, and duties.**
- The day underscores the importance of **justice, liberty, equality, and fraternity, fostering national unity**.
- It is a day to reflect on the transformative journey of the nation and reaffirm commitment to the principles that bind the diverse fabric of India.
  - It serves as a reminder of India's commitment to building a progressive, inclusive, and equitable society for all citizens.

## Defination of Constitution:

- It is the supreme legal authority which binds the legislative, executive, and judicial organs of government.
- The Constitution grants all citizens Fundamental Rights and empowers the independent judiciary to invalidate legislations or government actions which violate the Constitution.

### FEW FACTS ABOUT INDIAN CONSTITUTION

- **M.N. Roy** was the first to propose the idea of a Constituent Assembly for India in 1934.
- **Sir Benegal Narsing Rau** is renowned for his pivotal role as the Constitutional Advisor to the Constituent Assembly in drafting the Constitution of India.
- Both Hindi and English versions of Constitution are calligraphed by **Prem Behari Narain Raizada**.
- **Dr. Bhimrao Ramji Ambedkar** regarded as the father of the Indian Constitution.
- **Jawaharlal Nehru** introduced the **Objective Resolution**, which later evolved into the Preamble of the Constitution.

## Evolution of the Indian Constitution:

- **1935:** The Government of India Act, 1935, served as the foundation for the modern constitution but lacked provisions for a sovereign democratic republic.
- **1946:** The Constituent Assembly was formed through indirect elections under the Cabinet Mission Plan.
  - **9 December 1946:** The Assembly held its first meeting.
  - **Membership:** Initially 389 members, reduced to 299 after Partition.
  - **Leadership:** Sachchidananda Sinha served as interim President of the Assembly before **Rajendra Prasad** was formally appointed as President of the constituent assembly.

- **1947–1949:** The Drafting Committee, chaired by Dr. B.R. Ambedkar was established in August 1947, to prepare the draft Constitution. The Draft Constitution was deliberated over 11 sessions, spanning **2 years, 11 months, and 18 days.**
  - **26 November 1949:** Indian Constitution was adopted by the Constituent Assembly on 26 November 1949, meaning it was officially accepted and agreed upon by the Assembly members.
  - Here, adoption of Constitution means the formal approval or acceptance of a document or law by the relevant authority.
- **1950:** The Constitution was enforced on **26 January 1950.**
  - Here, enforced means when the adopted law or constitution comes into force or becomes operational.



**MAKING OF THE INDIAN CONSTITUTION**

- **9 Dec 1946** First Meeting of the Constituent Assembly
- **29 Aug 1947** Drafting Committee Appointed
- **26 Nov 1949** Drafting Complete
- **24 Jan 1950** Constitution of India was signed
- **26 Jan 1950** Constitution was Legally enforced

**11** Sessions | **165** Days of Discussions | **299** Members | **2000** Amendments Made Before Finalisation

**2 years 11 months and 18 days**
Time Taken To Prepare The Final Draft

## Key Features of the Indian Constitution:

- **Lengthiest Written Constitution:** The Indian Constitution is the world's lengthiest, originally comprising a Preamble, 395 Articles (22 Parts), and 8 Schedules. Over time, it expanded to more than 470 Articles (25 Parts) and 12 Schedules.
- **Blend of Rigidity and Flexibility:** The Constitution is a unique mix of rigidity and flexibility. Amendments can be made by simple majority, special majority, or with state ratification, balancing adaptability with the protection of fundamental principles.

## Important Constituent Assembly Debates:

- **Objectives Resolution:** Introduced by Jawaharlal Nehru on December 13, 1946, the Objectives Resolution laid the foundation for preamble. It emphasized the principles of sovereignty, democracy, and a republic, which later shaped the Preamble and guided the drafting process.
- **Debate on Fundamental Rights:** The Assembly discussed fundamental rights to protect individual liberties and ensure equality. The outcome was the inclusion of Articles 12-35, securing rights like freedom of speech, equality before the law, and protection against discrimination.
- **Language Provisions Debate:** This debate addressed India's official language issue. The Assembly decided on Hindi in Devanagari script as the official language, with English continuing for 15 years to accommodate administrative needs and linguistic diversity.
- **Debate on the Structure of Government:** Members deliberated on adopting a federal or unitary system. A federal structure with a strong center was chosen to ensure national integration and administrative efficiency while granting autonomy to states.
- **Reservation Policies Debate:** The Assembly debated reservations for Scheduled Castes, Scheduled Tribes, and Other Backward Classes. The inclusion of provisions for reservation in legislatures, education, and employment aimed to address historical injustices and promote social justice.
- **Uniform Civil Code Debate:** The Assembly discussed the need for a Uniform Civil Code (UCC) to unify personal laws across religions. Article 44 was added under the Directive Principles, advocating for a common code while respecting cultural diversity.
- **Directive Principles of State Policy Debate:** The Assembly deliberated on socio-economic guidelines inspired by the Irish Constitution. These non-justiciable principles outlined goals for public health, education, and welfare, forming a vision for governance.
- **Emergency Provisions Debate:** The Assembly debated the extent of central powers during emergencies.
  - Articles 352-360 were included to empower the Union government while ensuring safeguards to protect democratic principles.
- **Adult Suffrage Debate:** Members debated granting universal adult suffrage despite concerns about low literacy levels. Voting rights were granted to all citizens aged 21 and above (later reduced to 18), marking a progressive step toward inclusive democracy.
- **Presidency vs. Parliamentary System Debate:** The Assembly discussed adopting either a presidential or parliamentary system. The parliamentary system was chosen for its familiarity and ability to ensure accountability and stability in a diverse nation.

## Contribution of Women in the Constituent Assembly:

- **Durgabai Deshmukh:**
  - Known as the "Mother of Social Work," Durgabai Deshmukh was deeply involved in nation-building and social reform.
  - A lawyer and founder of the Andhra Mahila Sabha, she advocated lowering the eligibility age for holding a ministerial position to 30 years.
  - After Independence, she served on the Planning Commission and chaired the Central Social Welfare Board (CSWB).
- **Hansa Jivraj Mehta:**
  - A freedom fighter, women's rights activist, and Constituent Assembly member, she symbolized women's empowerment.
  - On August 15, 1947, she presented India's first national flag on behalf of the country's women. Mehta opposed reserved seats for women, emphasizing the need for social, economic, and political justice without quotas.
- **Dakshayani Velayudhan:**
  - The only Scheduled Caste woman in the Constituent Assembly, Dakshayani Velayudhan was a staunch opponent of untouchability and caste discrimination.
  - she supported Article 17, which abolished untouchability, and envisioned a Constitution that provided a new framework for life. Though she did not pursue electoral politics, she remained active in social work.
- **Rajkumari Amrit Kaur:**
  - In the Constituent Assembly, she championed universal adult franchise and equality without reservations for women.
  - A proponent of the Uniform Civil Code, Kaur also suggested replacing "free practice of religion" with "freedom of religious worship" in the Constitution.
  - She later served as India's first Health Minister and founded the All India Institute of Medical Sciences (AIIMS).
- **Annie Mascarene:** She emphasized the importance of centralized power for a functioning democracy while warning against excessive centralization.
- **Begum Aizaz Rasul:** The only Muslim woman in the Constituent Assembly, Begum Aizaz Rasul opposed reservations and separate electorates, which she believed would alienate minorities from the majority.
- **Vijaya Lakshmi Pandit:** The first woman cabinet minister in British India, Vijaya Lakshmi Pandit was a prominent voice in the Constituent Assembly.
- **Ammu Swaminathan:** A social worker and anti-caste activist, Ammu Swaminathan fought for women's rights and caste equality. She advocated for adult franchise, the removal of untouchability, and reforms in Hindu religious laws.

- For instance, The **1st Amendment (1951),** which introduced restrictions on freedom of speech and expression, was passed with a simple majority in Parliament and;
- The **101st Amendment (2016)** required a special majority in Parliament, meaning a majority of the total membership and two-thirds of members present and voting in both Houses.
  - As it altered the federal structure by introducing GST, it also needed ratification by at least half of the state legislatures under Article 368.

## CONSTITUTION AS A LIVING DOCUMENT

- A living document evolves over time, adapting to societal changes and contemporary challenges while maintaining its core principles.
- The Indian Constitution embodies this concept by balancing rigidity with flexibility through amendments to the Contitution.

**1951 (1ST AMENDMENT)** Introduced 9th Schedule to keep certain laws beyond the scope of judicial review.

**1956 (7TH AMENDMENT)** States reorganised by language; Union Territories introduced

**1976 (42ND AMENDMENT)** 'Socialist', 'Secular' and 'Integrity' added in the Preamble: fundamental duties prescribed.

**1978 (44TH AMENDMENT)** Right to Property knocked off from the list of fundamental rights

**MAJOR CONSTITUTIONAL AMENDMENTS THAT CHANGED THE COURSE OF INDIA**

**1985 (52ND AMENDMENT)** Defection becomes illegal

**1989 (61ST AMENDMENT)** Voting age reduced to 18 from 21 years

**1992 (73RD AND 74TH AMENDMENT)** Direct election for Panchayats and urban local bodies

**2023 (106TH AMENDMENT- Nari Shakti Vandan Adhiniyam, 2023)** which seeks to reserve 1/3rd of the total number of seats for women in Lok Sabha, SLAs and Delhi Assembly.

**2019 (103RD AMENDMENT)** 10% reservation for economically weaker sections of upper castes

**2016 (101ST AMENDMENT)** Introduction of the Goods and Services Tax (GST)

- **Federal System with Unitary Features:** India's Constitution establishes a federal structure with two levels of government—Union and State. However, unitary features like a strong center, single citizenship, and emergency provisions make it a "quasi-federal" system.

- A **"quasi-federal"** system refers to a structure where power is shared between Union and State governments, but the Union government holds more authority.
- **Parliamentary System of Government:** The Constitution follows the British parliamentary model, featuring a nominal head of state and De-jure authority (President) and a real executive and De-facto authority (Prime Minister) accountable to the legislature. This system is implemented at both central and state levels.
  - **De facto authority:** This refers to authority that is exercised in practice, even if not officially recognized by law.
  - **De jure authority:** This refers to authority that is legally recognized and established by law or the constitution.
- **Fundamental Rights and Duties:** Part-III enshrines six fundamental rights, including the right to equality, freedom, and constitutional remedies etc. Part-IV-A, added in 1976, outlines 11 fundamental duties, reminding citizens of their responsibilities to the nation.
- **Directive Principles of State Policy:** Inspired by the Irish Constitution, these non-justiciable principles (means they cannot be enforced by courts) in Part-IV guide the state to promote social justice, economic welfare, and equitable development.
- **Secularism:** India is a secular state, ensuring equal respect for all religions without endorsing any as the state religion, fostering harmony in a diverse society.
- **Integrated and Independent Judiciary:**
  - **Integrated judiciary:** It means the judiciary is a unified system with the Supreme Court at the top, followed by High Courts and subordinate courts. This structure ensures a single, cohesive legal framework for the entire country.
  - **Independent Judiciary:** The Indian judiciary operates independently of the executive and legislature, ensuring impartiality in its decisions. The independence is safeguarded by provisions like security of tenure for judges and financial autonomy for the judiciary.
- **Borrowed Features from Global Source:** India's Constitution draws inspiration from other nations:

| BORROWED FEATURES OF INDIAN CONSTITUTION | | |
|---|---|---|
| 1. | British Constitution | Parliamentary form of Government, Rule of Law, Law making procedure, Single Citizenship: Institution of Speaker, doctrine of pleasure tenure of civil servants. |
| 2. | American Constitution | Judicial System, Fundamental Rights |
| 3. | Canadian Constitution | Federal System with a strong central authority; Residual powers. Centre State Relation. |

| 4. | Irish Constitution | Directive Principles, Election of the President of India |
| --- | --- | --- |
| 5. | Australian Constitution | Concurrent list; Freedom of Trade & Service within country |
| 6. | Germany Constitution | Emergency Provision |
| 7. | Soviet Constitution | Five Year Plans; Fundamental duties |
| 8. | South African | Amendment of Constitution. |

## Issues:

- **Centralization of Power:** While the Constitution envisions a federal structure, the central government often wields overriding authority. The frequent invocation of **Article 356** (President's Rule) to dismiss state governments, sometimes for political motives, underscores this centralization.
- **Length and Complexity:** The Indian Constitution, with 470 Articles and 12 Schedules, is the longest globally, making it highly detailed but also complex.
  - This exhaustive nature can be challenging for citizens to understand and for governance to implement effectively, particularly at local levels.
- **Judicial Overreach and Independence:** The judiciary safeguards constitutional values, but instances of judicial overreach and executive influence raise concerns. Experts considered the **striking down of the NJAC (2015)** as an act of judicial overreach.
  - **Judicial overreach** refers to situations where the judiciary goes beyond its constitutional role, interfering with or encroaching upon the powers and functions of the executive or legislature.
- **Secularism Under Stress:** India's secular ethos faces challenges due to political and religious influences. The **Shah Bano case (1985)** revealed tensions between secular laws and religious identity, as political decisions overturned a progressive verdict.
  - The ongoing debate around the **Uniform Civil Code (UCC)** further highlights struggles to balance personal laws with secular principles.
- **Fundamental Rights and National Security:** Balancing civil liberties with national security remains a sensitive issue.
  - Laws like **UAPA (Unlawful Activities Prevention Act)**, while aimed at safeguarding the nation, have faced criticism for potential misuse and infringement on Fundamental Rights.
- **Challenges in Implementing Directive Principles:** The Directive Principles of State Policy aim to promote social welfare, but their non-justiciable nature often leads to neglect.
  - *For instance,* universal healthcare as envisioned in the Constitution, remain unmet goals.

- **Basic Structure Doctrine and Constitutional Amendments:** While the **Kesavananda Bharati case (1973)** introduced the Basic Structure Doctrine to safeguard constitutional principles, it also created ambiguity about which features qualify as "basic structure." This ambiguity often leads to conflicts between the judiciary and legislature.

## Constitution as a Guiding Light for India:

- **Framework for Governance:** The Constitution establishes the structure of governance, clearly defining the roles of the legislature, executive, and judiciary. The principle of **separation of powers** ensures a system of checks and balances, enabling accountable and efficient administration.
- **Protector of Individual Rights:** By guaranteeing **Fundamental Rights** (Part III), the Constitution protects individual freedoms such as equality, speech, and protection against exploitation. These rights empower citizens to live with dignity and act as safeguards against the misuse of power by the state.
- **Champion of Social Justice:** Through **DPSPs** (Part IV), the Constitution envisions a welfare state committed to reducing inequalities.
  - Initiatives like free and compulsory education for all children until they complete the age of fourteen years. (Article 45) and preventing the concentration of wealth and means of production to the detriment of the common good (Article 39(c)) promote inclusive development and uplift marginalized communities.
- **Unity Amidst Diversity:** Recognizing India's vast diversity, the Constitution promotes inclusivity through provisions like linguistic and cultural rights (Articles 29 and 30). This ensures the protection of minority identities while fostering national unity, making India a vibrant and cohesive democracy.
- **Foundation of Democracy:** The Constitution ensures **universal adult suffrage** (Article 326), granting every citizen the right to vote regardless of caste, gender, religion, or wealth. It establishes democratic institutions that enable citizens to actively participate in shaping the nation.
- **Guardian of Sovereignty and Rule of Law:** The Constitution serves as the supreme law of the land, ensuring that every law and action aligns with democratic principles. **Judicial review** empowers the courts to strike down unconstitutional laws, preserving the sovereignty and upholding the rule of law.

## Conclusion:

- "The Constitution is a powerful tool to curb such disparity. It creates institutions and structures that are meant to guard against inequality, apparent or invisible.
- In that sense, our Constitution performs a horizontal function in that it regulates inter-institutional relationships and a vertical function insofar as it regulates the relationship between the state and its people," *(Former CJI D Y Chandrachud)*.

# U.S. PRESIDENTIAL ELECTION 2024

Donald Trump has secured victory in the 2024 U.S. Presidential Election and is set to take office as the 47th President of the United States in January, 2025.

## About:

- The U.S. presidential election occurs every four years to elect the President and Vice President of the United States. It follows an indirect voting system where citizens vote for electors, who then formally choose the President and Vice President.
- **Qualification for Presidential Candidates:** To qualify as a presidential candidate, the U.S. Constitution requires that the individual:
  - Be a natural-born U.S. citizen,
  - Be at least 35 years old, and
  - Have lived in the United States for at least 14 years.
- **The Election Process:**
  - **Step 1 (Primaries and Caucuses):** There are many people who want to be President, each with their own ideas about how the government should work. People with similar ideas belong to the same political party.
    - This is where primaries and caucuses come into play. Candidates from each political party campaign throughout the country to win the favor of their party members.
  - Beginning in February the main voting events Primaries and Caucuses will lead to a selection of delegates who will represent the people at the upcoming conventions.
  - *In a Caucus:* Party members select the best candidate through a series of discussions and votes.
  - *In a Primary:* Party members vote for the best candidate that will represent them in the general election.
  - **Step 2 (National Convention):** Each party holds a national convention to select a final presidential nominee. State delegates from the primaries and caucuses selected to represent the people will "endorse" their favorite candidates and the final presidential nominee from each party will be officially announced at the end of the conventions.
    - The presidential candidate also chooses a running mate (Vice Presidential candidate). The presidential candidates campaign throughout the country to win the support of the general population.
  - **Step 3 (General Election):** People in every state across the country vote for one President and Vice President. When Americans go to the polls in November they select their favorite presidential candidate and their running mate.



**U.S. CONSTITUTION'S** REQUIREMENTS FOR A PRESIDENTIAL CANDIDATE

NATURAL BORN CITIZEN — MINIMUM AGE 35 YEARS — U.S. RESIDENT 14 YEARS

START

**STEP 1 PRIMARIES AND CAUCUSES**

THERE ARE MANY PEOPLE WHO WANT TO BE PRESIDENT, EACH WITH THEIR OWN IDEAS ABOUT HOW GOVERNMENT SHOULD WORK — PEOPLE WITH SIMILAR IDEAS BELONG TO THE SAME POLITICAL PARTY, THIS IS WHERE PRIMARIES AND CAUCUSES COME IN — CANDIDATES FROM EACH POLITICAL PARTY CAMPAIGN THROUGHOUT THE COUNTRY TO WIN THE FAVOR OF THEIR PARTY MEMBERS

THE PRESIDENTIAL CANDIDATES CAMPAIGN THROUGHOUT THE COUNTRY TO WIN THE SUPPORT OF THE GENERAL POPULATION

**NATIONAL CONVENTIONS STEP 2**

AT EACH CONVENTION, THE PRESIDENTIAL CANDIDATE CHOOSES A RUNNING MATE <VICE PRESIDENTIAL CANDIDATE>

EACH PARTY HOLDS A NATIONAL CONVENTION TO SELECT A FINAL PRESIDENTIAL NOMINEE

**IN A PRIMARY** PARTY MEMBERS VOTE FOR THE BEST CANDIDATE THAT WILL REPRESENT THEM IN THE GENERAL ELECTION

**IN A CAUCUS** PARTY MEMBERS SELECT THE BEST CANDIDATE THROUGH A SERIES OF DISCUSSIONS AND VOTES

...AND I APPROVE THIS MESSAGE.

**STEP 3 GENERAL ELECTION**

PEOPLE IN EVERY STATE ACROSS THE COUNTRY VOTE FOR ONE PRESIDENT AND VICE PRESIDENT

WHEN PEOPLE CAST THEIR VOTE, THEY ARE ACTUALLY VOTING FOR A GROUP OF PEOPLE KNOWN AS **ELECTORS**

**STEP 4 ELECTORAL COLLEGE**

IN THE ELECTORAL COLLEGE SYSTEM, EACH STATE GETS A CERTAIN NUMBER OF ELECTORS BASED ON IT'S REPRESENTATION IN CONGRESS

EACH ELECTOR CASTS ONE VOTE FOLLOWING THE GENERAL ELECTION, AND THE CANDIDATE WHO GETS MORE THAN HALF (270) WINS

THE NEWLY ELECTED PRESIDENT AND VICE PRESIDENT ARE INAUGURATED IN JANUARY

Based on 2010 Census

**538 ELECTORAL VOTES** — **270 VOTES**

**DEFINITIONS**
**Caucus:** A meeting of the local members of a political party to select delegates to the national party convention. A caucus is a substitute for a primary election.
**Delegate:** A person authorized to represent others as an elected representative to a political party conference.
**Elector:** A member of the electoral college.
**Electoral College:** The voters of each state, and the District of Columbia, vote for electors to be the authorized constitutional members in a presidential elections.
**Natural Born Citizen:** Someone born with U.S. citizenship includes any child born "in" the United States, the children of United States citizens born abroad, and those born abroad of one citizen parent.
**Primary:** An election where voters select candidates for an upcoming general election. Winning candidates will have delegates sent to the national party convention as their party's U.S. presidential nominee.

- When people cast their vote, they are actually voting for a group of people called electors. Except in the states of Maine and Nebraska, if a candidate receives the majority of the votes from the people of a state then the candidate will receive all electoral votes of that state.
- The presidential nominee with the most electoral votes becomes the President of the United States.
- **Step 4: (Electoral College):** The Electoral college is a process in which electors or representatives from each state in number proportional to the state's population cast their vote and determine who will be president.
  - Each state gets a certain number of electors based on its representation in Congress. There are a total of 538 electors selected according to each state's policy. Each elector casts one vote following the general election and the candidate who gets more than half (270) wins.
  - The newly elected President and Vice President are inaugurated in January.

### SWING STATES

- Some states, referred to as **"swing states"** or **"battleground states,"** are known for their historically close races, with the potential to swing either Democratic or Republican.
  - These states hold significant influence in the election, as their outcomes can be decisive in securing the 270 electoral votes needed to win, due to the winner-takes-all system.
- In this year's election, **seven key swing states**—Pennsylvania, Georgia, North Carolina, Michigan, Arizona, Wisconsin, and Nevada—are expected to play a crucial role in determining the final result.

### ELECTION PROCESS OF INDIAN PRESIDENT

- The President of India is elected through an Electoral College system, with votes cast by lawmakers at both the national and state levels. The Election Commission (EC) of India oversees the entire election process.
- **The Electoral College consists of:**
  - Elected members of the Rajya Sabha (Upper House) and Lok Sabha (Lower House).
  - Elected members of the Legislative Assemblies of States and Union Territories of Delhi and Puducherry (MLAs).

*Election Procedure:*
- **Nomination Stage:**
  - Candidates must file their nomination, accompanied by a list of **50 proposers** and **50 seconders** from the Electoral College.
  - This rule was introduced in 1974 to prevent frivolous candidacies, as earlier elections saw many candidates with little chance of winning.

- Each elector (proposer or seconder) can support only one candidate.
- **Value of Votes:**
  - A vote cast by an MP or MLA is not counted as a single vote but is assigned a specific value.
  - **Value of MP's Vote:** Fixed at **700** for both Rajya Sabha and Lok Sabha members.
  - **Value of MLA's Vote:** Varies by state, calculated based on the state's population (from the 1971 Census) and the number of MLAs in the Assembly.
    - *Formula:* (Population of State ÷ No. of MLAs) ÷ 1000.
    - *Example:* In Uttar Pradesh, each MLA's vote value is **208**; in Maharashtra, it is **175**; in Arunachal Pradesh, it is **8**.
- **Quota for Victory:** A candidate does not win by a simple majority but must secure a specific quota: **50% of the total valid votes + 1**.
  - The Election Commission tallies all valid votes cast by the Electoral College using paper ballots.
- **Voting Method:**
  - The election follows the system of **proportional representation by a single transferable vote,** ensuring fair representation of preferences.
  - This system ensures that votes are weighted based on the value assigned to each elector (MLA or MP) rather than being counted as one vote per person.
  - Voters rank candidates in order of preference on a **secret ballot.**
- **Voting Process:**
  - **Casting the Votes:** Electors (MLAs and MPs) mark their preferences on the ballot paper. They must rank the candidates in their order of preference. Writing "1" against a candidate's name means the elector's first preference, "2" indicates the second preference, and so on.
  - **Counting the Votes:** Votes are first sorted based on the first preference of the electors.
    - The total value of all first-preference votes is calculated for each candidate.
    - A candidate must secure a majority of the total valid votes to win, which is defined as **50% of total valid votes + 1.**
  - **Transfer of Votes (if needed):** If no candidate meets the quota in the first round, the candidate with the lowest number of votes is eliminated.
  - The eliminated candidate's votes are then transferred to the remaining candidates based on the next preferences marked on the ballot paper.
  - This process continues until one candidate secures the required winning quota.

# COMPARISON BETWEEN PRESIDENT OF INDIA AND U.S

## Similarities:

- **Head of State:** Both the Indian and U.S. Presidents serve as the ceremonial heads of state, symbolizing the unity and sovereignty of their nations. They represent their countries at official events, diplomatic engagements, and other state ceremonies.
  - According to Article 52 of the Indian Constitution, the President is the head of state, similar to the U.S. President, whose role is defined in Article II, Section 1 of the U.S. Constitution.
- **Veto Power:** Both Presidents hold the authority to veto legislation passed by their respective legislatures. The Indian President, under Article 111, can withhold assent or return a bill to Parliament for reconsideration.
  - Similarly, the U.S. President, as per Article I, Section 7, can veto bills passed by Congress. This veto power serves as a critical tool for maintaining checks and balances in governance.
- **Emergency Powers:** Both Presidents can declare a state of emergency to address crises that threaten national security or sovereignty. In India, Article 352 empowers the President to proclaim a national emergency in situations of war, external aggression, or armed rebellion.
  - In the U.S., the President's emergency powers, though not explicitly defined in the Constitution, are derived from laws such as the National Emergencies Act and are supported by Article II's executive powers.
- **Diplomatic Role:** Both Presidents play key roles in foreign relations, including negotiating treaties, appointing ambassadors, and hosting foreign dignitaries.
- **Ceremonial Duties:** Both Presidents perform ceremonial responsibilities, such as inaugurating legislative sessions, granting national awards, and participating in significant cultural and national events. While these duties are primarily symbolic, they reinforce the President's role as the unifying figure of the nation.

- **Role in Lawmaking:** Both Presidents influence the legislative process through their powers to approve or return bills for reconsideration. The Indian President, under Article 111, can send bills back to Parliament unless they are money bills.
  - Similarly, the U.S. President, as per Article I, Section 7, can veto bills, requiring Congress to reconsider or override the veto with a two-thirds majority.
- **Pardoning Power:** Both Presidents have the authority to grant pardons, reprieves, and commutations to individuals convicted of crimes.
  - Article 72 of the Indian Constitution empowers the President to exercise this power in cases involving Union laws, while Article II, Section 2 of the U.S. Constitution provides the U.S. President the ability to grant clemency for federal offenses. This power reflects their roles as guardians of justice and symbols of mercy.
- **Power to defend the Constitution:** Both Presidents are custodians of their respective constitutions, ensuring that government actions align with constitutional principles. In India, Article 60 requires the President to take an oath to "preserve, protect, and defend the Constitution and the law."
  - Similarly, the U.S. President, under Article II, Section 1, takes an oath to "preserve, protect, and defend the Constitution of the United States."
- **Military Leadership:** Both Presidents serve as ceremonial commanders of their armed forces, symbolizing civilian control over the military. Article 53 of the Indian Constitution designates the President as the supreme commander of the armed forces.
  - In the U.S., Article II, Section 2 establishes the President as the Commander-in-Chief, giving them operational authority over the military during conflicts.
- **Role in Appointments:** Both Presidents appoint key officials, such as ministers, judges, ambassadors, and other high-ranking officers. In India, Article 75 empowers the President to appoint the Prime Minister and other Union ministers.
  - Similarly, Article II, Section 2 of the U.S. Constitution gives the President the authority to appoint federal officials with the advice and consent of the Senate.

| DIFFERENCES BETWEEN INDIAN AND U.S. PRESIDENTS | | |
|---|---|---|
| **Aspect** | **Indian President** | **U.S. President** |
| **Position of Power** | Primarily a ceremonial figure with limited executive authority. The real power lies with the Prime Minister and the council of ministers. | Holds substantial executive power as both the head of state and the head of government. The U.S. Constitution vests executive authority directly in the President. |
| **Functioning** | The Indian President functions largely on the advice of the Prime Minister and the Council of Ministers, as required by Article 74 of the Indian Constitution. Decisions are collective and guided by the parliamentary system. | The U.S. President has significant autonomy, making executive decisions independently. Article II, Section 1 gives the President full authority to execute the laws and run the government without external approval. |

| Election Process | Indirectly elected by an Electoral College comprising members of Parliament and State Legislative Assemblies, as per Article 54. This process reflects the parliamentary structure of governance. | Indirectly elected through the Electoral College, where citizens vote for electors who, in turn, vote for the President, as described in Article II, Section 1 of the U.S. Constitution. |
|---|---|---|
| Term Duration | Serves a five-year term with no limit on the number of terms they can serve, as stated in Article 56 of the Indian Constitution. | Serves a four-year term, with a maximum of two terms (eight years total), as per the 22nd Amendment to the U.S. Constitution. |
| Impeachment | The Indian President can be impeached for violating the Constitution, as outlined in Article 61, which requires a two-thirds majority in both Houses of Parliament to pass an impeachment resolution. | The U.S. President can be impeached for "treason, bribery, or other high crimes and misdemeanors," as per Article II, Section 4. The impeachment process begins in the House of Representatives and concludes with a trial in the Senate, where a two-thirds majority is needed for conviction. |

## LIKELY IMPLICATIONS OF TRUMP'S VICTORY ON INDIA

*Opportunities for Strengthening India-U.S. Ties*

- **Addressing China as a shared strategic challenge:** Trump's policies positioned China as a common adversary, strengthening Indo-U.S. collaboration on strategic objectives.
  - His administration reinvigorated the Quad alliance and championed the Indo-Pacific strategy to curb China's expanding influence. India-USA might come on a common front to counter the rising hegemony and assertiveness of China specially in the Indo-Pacific region.
- **Free Trade Agreement (FTA) Negotiations:**
  - Trump has expressed interest in revisiting stalled FTA talks with India to boost bilateral trade, which currently stands at **$191 billion (2022-23).**
  - A renewed FTA could address long-standing issues such as market access for U.S. agricultural goods and services, and India's concerns over visa restrictions for IT professionals.
  - *Example:* During Trump's first term, the U.S. removed India from its Generalized System of Preferences (GSP), citing market access issues. A second term might reopen discussions on GSP reinstatement, benefiting Indian exporters.
- **Defense Collaborations:**
  - India was designated a **Major Defense Partner** by the U.S. under Trump's first term, facilitating access to advanced military technologies.
  - Expanded arms sales could include deals for fighter jets like the **F-21** and drone systems such as **MQ-9B SeaGuardian** to bolster India's capabilities.
  - **Data:** India has already procured U.S. defense equipment worth **$20 billion** since 2008.
- **Energy Independence Initiatives:** Trump's administration previously facilitated a Memorandum of Understanding (MoU) for India to import Liquefied Natural Gas (LNG) from the U.S.

Driftwood LNG project, worth **$2.5 billion** annually.Reviving such initiatives could diversify India's energy imports and reduce dependence on Middle Eastern oil.

- **Strategic Energy Investments:** Under Trump's earlier tenure, India ramped up crude oil imports from the U.S., reaching **10% of its total imports** by 2020.Renewed collaborations in renewable energy and shale gas production could align with India's energy security goals under initiatives like **Make in India.**
- **Reduced Emphasis on Domestic Policy Critiques:**
  - **Human Rights and Press Freedoms:** Trump's administration is less likely to pressure India on issues like freedom of the press, human rights, or the treatment of NGOs, easing diplomatic tensions.
    - Biden's administration raised concerns over India's democratic backsliding, while Trump avoided such critiques during his earlier term, focusing instead on shared strategic interests.
  - **Ease of Diplomacy:** This reduced scrutiny allows India to focus on bilateral cooperation in areas like counterterrorism and technology without being distracted by external pressures on domestic matters.
- **Regional Policy Alignments:**
  - **Cutting Aid to Pakistan:** Trump reduced **$1.3 billion** in military aid to Pakistan during his first term, citing Islamabad's failure to address terrorism. A similar approach could weaken Pakistan's regional leverage.India welcomed this move as it aligned with New Delhi's stance on Pakistan's role in fostering cross-border terrorism.
  - **Crackdown on Extremist Organizations:** Trump's administration may expand counterterrorism measures targeting Khalistani organizations operating in the U.S., addressing India's concerns over separatist movements. The U.S. previously sanctioned the Pakistan-based group **Sikhs for Justice,** which India flagged as a front for extremist activities.

**Potential Areas of Friction:**

- **Trade Tariff Policies:**
  - **Renewed Trade Disputes:** Trump's focus on reducing trade deficits could reignite disputes over India's high tariffs on U.S. goods such as **medical devices (custom duties of up to 42%)** and **agricultural products**.Trump labeled India the "tariff king" during his earlier tenure, citing barriers to American products like Harley-Davidson motorcycles.
  - **Impact on Technology Trade:** India's data localization laws and digital taxation could face pushback under Trump's protectionist policies, potentially affecting the U.S.-India tech partnerships.

- **H-1B visa restrictions:** Under a renewed Trump administration, H-1B visa restrictions could tighten, significantly affecting Indian IT professionals who constitute the largest group of recipients.
  - Policies such as increased wage thresholds, stricter scrutiny of applications, and reduced approvals for outsourcing firms may limit opportunities for Indian talent in the U.S. tech industry, disrupting the flow of skilled workers and impacting India's IT services sector.

- **Diplomatic Sensitivities:**
  - **Mediation Remarks:** Trump's offer to mediate in the Kashmir dispute and India-China border tensions during his first term drew sharp denials from New Delhi, which views these as internal matters. Trump's 2019 comments on Kashmir triggered diplomatic clarifications from India, stressing the bilateral nature of its conflict with Pakistan.
  - **Perceived Unilateralism:** India may remain cautious of Trump's unpredictable foreign policy, especially his tendency to bypass multilateral frameworks, as seen in his withdrawal from the **Paris Climate Agreement.**

- **Sanctions Affecting Energy Imports:**
  - **Iran and Venezuela Oil Imports:** During Trump's first term, India was pressured to reduce crude oil imports from Iran and Venezuela due to U.S. sanctions, impacting its energy security. By 2019, India's oil imports from Iran dropped to zero under Trump's sanctions regime.

- **Impact on Strategic Autonomy:** A renewed hardline stance on Iran could strain India's **Chabahar Port project,** a critical gateway for trade with Afghanistan and Central Asia, which bypasses Pakistan.

## LIKELY IMPLICATIONS OF TRUMP AS PRESIDENT FOR OTHER COUNTRIES

### For Europe:

- **Security and Defense:** Trump's skepticism toward NATO's collective defense (Article 5) could weaken US commitments, emboldening adversaries like Russia and creating uncertainty among European allies.

- European nations may respond by increasing defense spending and coordinating arms transfers, accelerating trends toward greater self-reliance in security.
- France's push for a European Defense Community might gain traction, though intergovernmental disagreements could lead to national-level defense initiatives instead of supranational solutions.

- **US-Russia Relations:** A softer stance toward Russia may lead to eased sanctions, undermining European efforts to contain Moscow's influence.
  - Reduced US military aid to Ukraine could pressure European nations to fill the gap, straining NATO unity and slowing Ukraine's defense efforts.

- **Global Disinformation and Digital Economy:** Trump's approach could amplify transnational disinformation networks, undermining trust in democratic processes and journalism. EU efforts to regulate Big Tech and AI might face challenges as US deregulation fosters economic and technological dependencies on authoritarian players like Russia and China.

### For China:

- **Intensified Trade Wars:** Trump is likely to escalate tariffs on Chinese goods, continuing his efforts to reduce the U.S.-China trade deficit. For example, **25% tariffs on $250 billion worth of Chinese imports** during his first term disrupted industries like electronics and machinery.
  - Heightened tariffs could lead to further decoupling of supply chains, pushing companies like Apple to shift manufacturing to countries like India and Vietnam.

- **Technological Restrictions:** The U.S. may tighten export controls on advanced technologies, particularly semiconductors, AI, and 5G infrastructure. During Trump's first term, **Huawei faced crippling sanctions,** losing access to U.S.-made chips and Google's Android ecosystem.
  - Such measures could delay China's technological advancements, especially in critical sectors like AI and quantum computing, while strengthening the U.S.-led alternatives.

- **Military and Geopolitical Counterbalance:** Trump could strengthen U.S. alliances in the Indo-Pacific through initiatives like the **Quad (U.S., India, Japan, Australia)** and **AUKUS,** countering China's growing regional influence.**For instance,**expanded U.S. naval presence in the South China Sea during Trump's first term challenged China's territorial claims, a trend likely to intensify.

- **Taiwan and Strategic Allies:** Trump's administration may bolster support for Taiwan through arms sales and increased diplomatic engagement. For instance, the **$8 billion F-16 fighter jet deal in 2019** underscored U.S. commitment to Taiwan's defense. Such moves could provoke Beijing, escalating tensions over Taiwan and further straining the U.S.-China relations.

- **Geo-economic Counterbalance:** Trump could push allies to counter China's Belt and Road Initiative (BRI) by promoting alternatives like the **Blue Dot Network,** which certifies high-quality infrastructure projects.

## For Russia

- **Diplomatic Engagements:** Trump's personal rapport with Russian President Vladimir Putin suggests a likelihood of increased bilateral dialogues. This could lead to discussions on arms control agreements and collaborative efforts on global security issues.
    - However, such engagements may raise concerns among European allies about the U.S.'s commitment to NATO and collective defense.
- **NATO Relations:** Trump's skepticism toward NATO could lead to a reevaluation of U.S. commitments within the alliance.
    - This stance might embolden Russia to assert more influence in Eastern Europe, potentially destabilizing the region and causing concern among NATO member states.
- **Ukraine Conflict:** Trump has expressed intentions to mediate the conflict between Russia and Ukraine, proposing swift resolutions.
    - While this could lead to peace talks, there is apprehension that such negotiations might favor Russian interests, potentially compromising Ukraine's sovereignty and territorial integrity.

## For Middle East

*Israel:*

- **Continued Endorsement of Israeli Defense Measures:** During Trump's first term, his administration unconditionally supported Israeli military campaigns, such as airstrikes in Gaza and operations targeting Hamas. In the current **Israel-Hamas conflict,** Trump has urged Israel to escalate its offensive to secure a decisive outcome.
    - **Example:** In 2018, the Trump administration recognized Jerusalem as Israel's capital and later acknowledged Israeli sovereignty over the Golan Heights, emboldening Israeli defense policies.
- **Expansion of the Abraham Accords:** Trump's Abraham Accords facilitated peace agreements between Israel and countries like the UAE, Bahrain, Sudan, and Morocco. His second term is expected to focus on expanding these accords to include **Saudi Arabia,** a move that would reshape the region's geopolitical dynamics.

*Iran:*

- **Renewed "Maximum Pressure" Campaign:** Trump's reimposition of economic sanctions after withdrawing from the **JCPOA (Joint Comprehensive Plan of Action -Iran Nuclear Deal)** in 2018 led to a 70% decline in Iranian oil exports and reduced Iran's GDP by 6% in 2019. His second term will likely intensify sanctions on sectors like oil, banking, and shipping to further cripple Iran's economy.
- **Military and Proxy Conflicts:** Trump's close alignment with Israel could lead to more aggressive actions against Iranian proxy groups, such as Hezbollah in Lebanon and militias in Syria and Iraq.
    - This alignment might also encourage Israel to strike Iranian nuclear facilities.
    - The U.S. conducted drone strikes in Iraq and Syria in 2020 targeting Iran-backed militias, disrupting their logistical networks.

*Saudi Arabia:*

- **Defense Cooperation:** Trump has consistently supported Saudi Arabia, evidenced by $110 billion in arms sales approved during his first term, including precision-guided munitions, fighter jets, and missile defense systems.These arms deals helped bolster Saudi Arabia's defense during its war in Yemen against the Iran-backed Houthi rebels.
- **Economic Collaboration:**
    - **Vision 2030 Partnership:** Trump's administration supported Saudi Arabia's Vision 2030 plan, aimed at diversifying its oil-dependent economy. Future cooperation may include technology transfers, renewable energy projects, and infrastructure development.
    - **Geopolitical Realignment:** Saudi Arabia's potential inclusion in the Abraham Accords would mark a historic shift in Middle Eastern alliances. Trump's support for such initiatives may encourage Riyadh to formally recognize Israel in exchange for U.S. security guarantees.
- **Israel-Hamas Conflict:**
    - **Hamas Appeals for U.S. Pressure:** Hamas has called on the U.S. to mediate a ceasefire, but Trump's unwavering support for Israel could delay peace efforts. The U.S. might veto any UN resolutions perceived as anti-Israel, continuing its prior stance.
        - During the 2021 Gaza conflict, the U.S. blocked several UN Security Council resolutions calling for ceasefires.
    - **Reconstruction and Humanitarian Impact:** Post-conflict reconstruction in Gaza could face delays if Trump prioritizes Israeli security concerns over humanitarian aid. Historically, the U.S. has provided financial aid to rebuild Gaza but conditioned it on the demilitarization of Hamas.

*For Mexico:*

- **Trade Relations:** Trump's proposed 20% tariff on imports and over 200% duty on cars could harm Mexico's export-driven economy and affect multinational companies, potentially triggering retaliatory measures.
- **Immigration Policies:** Stringent U.S. immigration policies, including mass deportations and stricter asylum rules, may continue, with Mexico taking measures to curb migrant movement toward the U.S. border.

# DELHI's AIR POLLUTION CRISIS

Recently, Delhi experienced its poorest air quality levels since 2019, with
the Air Quality Index (AQI) reaching a severe+ category at 494 on November 18.

## About:
- **Overview:**
  - Air pollution refers to the presence of harmful substances in the atmosphere, including gases, particulates, and biological molecules, that pose risks to human health, ecosystems, and the climate.
  - **These pollutants can:**
    - Cause **health problems** such as respiratory diseases, cardiovascular issues, and cancer.
    - Lead to **environmental damage**, including acid rain, reduced biodiversity, and climate change.
    - Result in **economic losses** due to reduced productivity, healthcare costs, and damage to crops and infrastructure.
- **Measurement of Air Pollution in India:**
  - **National Air Quality Index (NAQI):**
    - Established by the **Central Pollution Control Board (CPCB)** in **2014**, NAQI simplifies complex air quality data into a single number or category to inform the public about pollution levels.
    - The index categorizes air quality into six bands: **Good**, **Satisfactory**, **Moderate**, **Poor**, **Very Poor**, and **Severe**. Each band correlates with health advisories.
  - **Pollutants Measured:** NAQI monitors eight key pollutants:
    - **PM10:** Particles ≤10 microns that cause respiratory issues.
    - **PM2.5:** Finer particles ≤2.5 microns that penetrate deep into the lungs and bloodstream.
    - **Nitrogen Dioxide ($NO_2$):** Causes respiratory inflammation.
    - **Sulphur Dioxide ($SO_2$):** Contributes to acid rain and respiratory problems.
    - **Carbon Monoxide (CO):** Reduces oxygen delivery to organs.
    - **Ozone ($O_3$):** Affects lung function.
    - **Ammonia ($NH_3$):** Causes eye irritation and respiratory problems.
    - **Lead (Pb):** Causes neurological and developmental issues.
- **Impact of PM2.5:**
  - PM2.5 is a major pollutant due to its **tiny size** (less than 2.5 microns).
  - Health risks: Chronic exposure can lead to **lung cancer**, **stroke**, **heart disease**, and **respiratory conditions**.
  - Widespread exposure: All **1.4 billion Indians** face unhealthy PM2.5 levels, making it a nationwide crisis.
- **Human Costs:**
  - Air pollution caused **1.67 million deaths** in 2019, accounting for **17.8% of total deaths** in India.

- Vulnerable groups, such as children, the elderly, and individuals with pre-existing conditions, are disproportionately affected.
- **Economic Burden:**
  - Premature deaths resulted in lost productivity worth **$28.8 billion** in 2019.
  - Additional economic losses of **$8 billion** stemmed from morbidity-related costs.
  - Combined, these losses amounted to **$36.8 billion**, which is **1.36% of India's GDP**.

## Reasons behind increasing Air Pollution:
- **Stubble Burning:**
  - **Geographic Source:** Predominantly from Punjab, Haryana, and Rajasthan, stubble burning involves the large-scale combustion of crop residues, especially after the rice harvest in October-November.
  - **Pollutants Released:**
    - **Methane ($CH_4$):** A potent greenhouse gas that traps heat in the atmosphere.
    - **Carbon Monoxide (CO):** Reduces oxygen delivery in the human body and affects respiratory health.
    - **Volatile Organic Compounds (VOCs):** React with sunlight to form ground-level ozone, a harmful pollutant.
    - **Polycyclic Aromatic Hydrocarbons (PAHs):** Known carcinogens that impact long-term health.
  - **Impact on Delhi:** During the stubble-burning season, up to **35% of Delhi's PM2.5 levels** are attributed to this activity. The dense smog from burning spreads across state boundaries due to prevailing northwesterly winds.
- **Reduced Wind Speed:**
  - **Winter Weather Patterns:**
    - In winter, wind speeds tend to be low, limiting the dispersal of pollutants.
    - Delhi, being landlocked, lacks the advantage of **coastal winds** that could carry pollutants away, as seen in cities near oceans.
  - **Impact:** Pollutants remain suspended in the air for extended durations, increasing their concentration.
- **Effect of Northwesterly Winds:**
  - **Post-Monsoon Wind Patterns:**
    - Winds from the **northwest** bring dust from the **Gulf region**, **northern Pakistan**, and **Afghanistan**.
    - This imported dust contributes to the particulate matter load in Delhi's air.

◆ **Seasonal Link:** As monsoons withdraw, these winds intensify during the winter months, aligning with the peak stubble-burning period.

- **Dip in Temperatures and Inversion Height**
  ◆ **Temperature Inversion:**
    ◆ Normally, warmer air at the surface rises and disperses pollutants.
    ◆ In winter, the phenomenon reverses, with a warm layer of air trapping cooler air below, preventing pollutants from escaping to higher altitudes.
    ◆ The **inversion height** lowers significantly, trapping pollutants closer to the ground.
  ◆ **Consequence:** This leads to increased smog formation and higher pollutant concentrations in Delhi's lower atmosphere.

- **Vehicular Pollution:**
  ◆ **Scale of Emissions:**
    ◆ Delhi has one of the **highest numbers of registered private vehicles** in India, contributing to its air quality challenges.
    ◆ The transport sector is responsible for approximately **28% of PM2.5 emissions**, making it the largest contributor among sectors.
    ◆ Diesel vehicles, in particular, release **NOx** and fine particulates that worsen pollution.
  ◆ **Policy Challenges:**
    ◆ Despite policies encouraging public transport, the reliance on personal vehicles remains high.
    ◆ Inefficient enforcement of emission standards compounds the issue.

- **Construction Activities and Open Waste Burning:**
  ◆ **Construction Dust:**
    ◆ Construction sites produce significant **dust emissions**, contributing to **10% of particulate pollution** in Delhi NCR.
    ◆ Lack of effective dust suppression measures worsens the situation.
  ◆ **Waste Burning:**
    ◆ Burning of municipal solid waste and landfills releases a toxic mix of gases, including **dioxins** and **PM2.5**.
    ◆ Open burning continues despite bans due to inadequate waste management infrastructure.

- **Secondary Particle Formation from Construction:**
  ◆ **Chemical Process:**
    ◆ **Ammonia (NH$_3$)** from agriculture reacts with **Sulfur Dioxide (SO$_2$)** and **Nitrogen Oxides (NO )** to form secondary particulates in the upper atmosphere.
    ◆ These particulates travel long distances, affecting regions far from their source.
  ◆ **Magnitude:** Secondary particles account for over **50% of PM2.5** in Delhi NCR.

## Impact of Air Pollution:

- **Health Impacts:**
  ◆ **Premature Deaths:** A report by **The Lancet (2020)** revealed that **1.67 million deaths** in India in 2019 were attributed to air pollution, constituting nearly **18% of total fatalities** in the country.
  ◆ **Respiratory Illnesses:**
    ◆ Fine particulate matter (PM2.5) and toxic gases like Nitrogen Dioxide (NO$_2$) and Sulfur Dioxide (SO$_2$) exacerbate conditions such as asthma, bronchitis, and Chronic Obstructive Pulmonary Disease (COPD).
    ◆ WHO estimates that **91% of India's population** lives in areas exceeding air quality guidelines.
  ◆ **Child Health:**
    ◆ Children are especially vulnerable, with prolonged exposure to polluted air leading to reduced lung function and cognitive impairment.
    ◆ In 2020, air pollution was linked to **116,000 infant deaths** in India **(Global Burden of Disease Study)**.
  ◆ **Cardiovascular and Neurological Impacts:** Polluted air is a leading cause of stroke, heart attack, and neurological disorders like dementia, with studies linking these illnesses to long-term exposure to PM2.5.

- **Economic Impacts:**
  ◆ **Healthcare Costs:** The **Energy Policy Institute at the University of Chicago (EPIC)** estimated that air pollution reduces life expectancy in India by **5.9 years**, which translates to increased healthcare expenses and loss of human capital.
  ◆ **Productivity Loss:**
    ◆ Air pollution directly impacts worker productivity, particularly in outdoor labor-intensive sectors like construction and agriculture.
    ◆ Reduced productivity translates into **₹1.9 lakh crores of annual economic losses**, as reported by **The World Bank**.
  ◆ **Agricultural Losses:**
    ◆ Ozone pollution is responsible for crop yield reductions, particularly in staples like wheat and rice.
    ◆ It is estimated that pollution causes **20-30% crop yield losses annually**, affecting farmers' livelihoods.
    ◆ The economic impact of reduced agricultural output due to air pollution is pegged at **₹20,000 crores annually**.

- **Environmental Impacts**
  ◆ **Climate Change:**
    ◆ Pollutants such as black carbon and greenhouse gases like CO$_2$ accelerate global warming and glacier melting.
    ◆ Himalayan glaciers, which sustain millions through their water resources, are retreating at a rate of **0.5 to 1 meter annually**, threatening water availability.
  ◆ **Soil Degradation:** Pollutants like heavy metals and acid rain alter soil pH, reducing fertility and disrupting microbial activity essential for crop growth.

- **Biodiversity Loss:** Acid rain caused by air pollutants affects forests, aquatic ecosystems, and wildlife. Pollutants also alter habitats, threatening species survival.
- **Social Inequity:**
  - Air pollution disproportionately affects marginalized and vulnerable communities.
  - **Rural Populations**: In rural areas, reliance on traditional biomass for cooking leads to high levels of indoor air pollution, causing **480,000 deaths annually (WHO)**.
  - **Urban Poor:**
    - Those living in industrial zones or near highways are disproportionately exposed to outdoor air pollution.
    - Lack of access to clean air infrastructure, such as air purifiers, exacerbates the divide between socio-economic classes.

## Initiatives taken by the Government:

- **National Clean Air Programme (NCAP):**
  - **Launch and Goal:** Initiated by the Ministry of Environment, Forest and Climate Change (MoEFCC) in January 2019, NCAP aims to improve air quality in 131 cities across 24 states.
    - The initial target was a 20-30% reduction in PM10 levels by 2024 based on 2017 baseline, which has now been revised to a 40% reduction or achievement of national standards (60 µg/m$^3$) by 2025-26.
  - **City Action Plans (CAPs):** Developed and implemented by Urban Local Bodies, these plans focus on city-specific sources of air pollution like soil and road dust, vehicles, domestic fuel, MSW burning, construction activities, and industries.
  - **Financial Support and Resource Mobilization:** Cities receive performance-based financial assistance for implementing CAPs, with additional funding mobilized through schemes like Swachh Bharat Mission, AMRUT, Smart City Mission, SATAT, and FAME-II, in collaboration with state governments and local authorities.
  - **Public Engagement:** Each of the 131 cities has set up Public Grievance Redressal Portals (PGRP) and Emergency Response Systems (ERS) to address air quality complaints and respond to emergencies.
  - **Impact:** In FY 2022-23, 88 of the 131 cities showed improvements in air quality compared to the baseline of FY 2017-18.
- **Measures for Controlling Vehicular Emissions:**
  - **BS-VI Fuel Standards:** India transitioned from BS-IV to BS-VI fuel standards in Delhi in 2018 and nationwide by 2020 to reduce vehicular pollution.
  - **RFID and Toll Collection:** South Delhi Municipal Corporation implemented an RFID system for toll collection from commercial vehicles.

- **Promotion of Electric Vehicles:** The FAME-II scheme and SATAT initiative promote electric and bio-gas powered vehicles to reduce reliance on conventional fuel.
- **Expressways & Highways:** Operationalization of expressways diverts non-destined traffic to reduce congestion and emissions.
- **Measures for Controlling Industrial Emissions:**
  - **Emission Standards for Power Plants:** Specific $SO_2$ and NOx emission standards have been set for thermal power plants.
  - **Ban on Pet Coke and Furnace Oil:** The use of pet coke and furnace oil as fuels in NCR states has been banned since 2017 to curb air pollution.
  - **Industrial Fuel Shifts:** Industries in NCR have shifted to cleaner fuels like PNG and biomass.
- **Measures for Controlling Stubble Burning:**
  - **Crop Residue Management Scheme:** A subsidy program for machinery to manage crop residue and establish custom hiring centres has been implemented in Delhi, Punjab, Haryana, and Uttar Pradesh, with over Rs. 2440 crore allocated from 2018-2022.
  - **Pelletization and Torrefaction Plants:** Financial aid is provided for setting up plants to reduce stubble burning and create biofuel alternatives from crop residues.
  - **Field Monitoring and Enforcement:** Scientists from CPCB are deployed to monitor stubble burning incidents in Punjab and Haryana, coordinating with state governments and local agencies for prevention.
- **Air Quality Monitoring:**
  - **National Air Quality Index (AQI):** Launched in 2015, the AQI tracks and reports real-time air quality. The CPCB operates a central control room that disseminates data on air quality and provides air quality forecasts.
  - **Monitoring Network:** India has an extensive air quality monitoring network of 1447 stations across 516 cities in 28 states and 7 union territories.
  - **Data Dissemination:** Daily air quality reports, including AQI and PM concentration trends, are published and made available for public awareness and decision-making.
- **Public Engagement & Outreach:**
  - **Stakeholder Consultation:** Regular consultations with government bodies, local authorities, and the public help assess and review air quality management strategies.
  - **Regulatory Actions:** The Graded Response Action Plan (GRAP), implemented based on the AQI, prescribes measures to control pollution across sectors.
    - These include directives for cleaner industrial fuels, emission control devices for DG sets, and dust mitigation at construction sites.

# SC's JUDGEMENT ON MANDATORY ACCESSIBILITY STANDARDS

Recently, the Supreme Court of India delivered a landmark judgment upholding the rights of Persons with Disabilities (PwDs) and directing the government to take immediate measures to ensure accessibility in public spaces and services.

## Case Background:

- The case was initiated by **Rajive Raturi**, a visually impaired individual associated with a human rights organization, who filed a writ petition in 2005.
- The petition sought directions to ensure the safety and accessibility of public spaces, such as roads, public transport, and other essential facilities, for visually impaired individuals.
- In response, the Supreme Court tasked NALSAR's Center for Disability Studies (CDS) with preparing a report.
- Findings of the the report, titled **"Finding Sizes for All: A Report on the Status of the Right to Accessibility in India"**:
  - **Accessibility in Transport Systems:** The report highlighted transport as a crucial enabler for education, employment, and healthcare. Key findings included:
    - Delhi had 3,775 low-floor CNG buses for accessible travel.
    - Tamil Nadu had only 1,917 accessible buses out of a total fleet of 21,669, showcasing significant gaps in accessibility.
  - **Intersectionality of Disability with Other Disadvantages:** The report emphasized that accessibility challenges must be examined alongside other disadvantages, such as caste, gender, religion, and regional disparities, to fully understand the barriers faced by persons with disabilities.
  - **Specific Accessibility Challenges:** The report identified specific issues, including:
    - Inaccessible job portals for visually impaired individuals.
    - Lack of sign language recognition for those with hearing and speech impairments.

## Key Highlights of the Judgment:

- **Rule 15 of RPwD Rules, 2017:** The Court found Rule 15, which outlines accessibility standards, to be inadequate and beyond the scope of the **Rights of Persons with Disabilities Act (RPwD Act), 2016**. The Rule was deemed to lack mandatory compliance, functioning more as persuasive guidelines rather than enforceable standards.
  - **Court's Observation:** "Rule 15 does not provide for compulsory, non-negotiable standards and contradicts the intent of the RPwD Act, which clearly demands enforceability."
- **Mandatory Standards for Accessibility:** The Court directed the Union Government to establish **mandatory, non-negotiable accessibility standards** to ensure adherence to the RPwD Act. It stressed the importance of holding violators accountable and ensuring enforcement.
- **Reasonable Accommodation:** The Court highlighted the need for **reasonable accommodations**, which involve making specific adjustments to cater to the needs of individuals with disabilities.
- **Two Pronged Approach:** The court underscored the necessity of **"meaningful access"** for disabled persons to public spaces and mandated a **two-pronged approach:**
  - Adapting existing infrastructures to accessibility standards, and
  - Ensuring that all new infrastructure is designed to be inclusive from the outset.
  - The judgment reaffirmed accessibility to public spaces for persons with disabilities as a **fundamental right.**

## Implications of the Judgment:

- **Establishment of Enforceable Standards:** The judgment mandates the creation of mandatory, non-negotiable accessibility standards, ensuring robust adherence to the RPwD Act, 2016, and addressing the inadequacies of Rule 15.
- **Recognition of Accessibility as a Fundamental Right:** The ruling reaffirms the right of persons with disabilities to accessible public spaces and services, strengthening their constitutional entitlement to equality and dignity.
- **Promotion of Inclusive Infrastructure:** It emphasizes on adapting existing infrastructure to accessibility standards and ensuring all new projects are designed inclusively from the outset. It will lead to:
  - Enhanced participation of PwDs in all facets of society.
  - A shift toward inclusive design in public spaces, transport, and digital platforms.
- **Accountability for Non-Compliance:** By holding violators accountable, the judgment ensures enforcement and compliance, fostering systemic responsibility for implementing accessibility measures.
- **Focus on Reasonable Accommodation:** The judgment highlights the importance of making specific adjustments for persons with disabilities, ensuring their unique needs are met in public spaces and services.
- **Catalyst for Policy and Governance Reforms:** The ruling compels governments to prioritize accessibility, potentially leading to reforms in policies, regulations, and the monitoring of disability rights across sectors.

## Challenges faced by PwDs:

- **Social Stigma and Marginalization:** PwDs are frequently perceived through a lens of pity, helplessness, or ridicule, undermining their dignity and identity.
  - Such negative stereotypes contribute to exclusion and systemic discrimination, limiting their participation in society.
- **Barriers to Education:** India's education system remains largely inaccessible to PwDs.
  - Less than 1% of institutions are disabled-friendly, with only 40% of school buildings equipped with ramps and approximately 17% having accessible restrooms.
  - These limitations hinder educational opportunities for PwDs.
- **Inaccessible Public Infrastructure:**
  - Public spaces, transport, and buildings remain largely inaccessible, with limited adherence to universal design principles.
  - *For instance*, many railway stations, buses, and urban spaces lack ramps, elevators, and tactile pathways for visually impaired individuals.
- **Limited Access to Healthcare:**
  - PwDs often face challenges in accessing adequate healthcare services, including a lack of specialized equipment, trained professionals, and facilities tailored to their needs.
  - This limits their ability to maintain a healthy and independent life.
- **Financial Constraints:**
  - Many PwDs are excluded from employment opportunities, resulting in financial dependence on families or inadequate social security.
  - PwDs face significant hurdles in the workforce. In 2023, only 5 out of 50 Nifty 50 companies employed more than 1% PwDs, primarily in public sector roles.
  - Limited government aid and gaps in welfare schemes exacerbate economic vulnerabilities.
- **Political Underrepresentation:**
  - PwDs have minimal representation in policymaking and governance.
  - Their concerns are often overlooked in political debates, leading to a lack of targeted policies or accountability in addressing their needs.

## CONSTITUTIONAL AND LEGAL PROVISIONS RELATED TO PwDs

**Constitutional Provisions:**

- **Preamble:** The Preamble of the Indian Constitution assures **social, economic, and political justice**, along with **equality of status and opportunity** to all citizens, including Persons with Disabilities (PwDs).

- **Fundamental Rights:**
  - **Article 14 (Equality Before Law):** Ensures that PwDs have the right to be treated equally before the law, without any discrimination.
  - **Article 15 (Prohibition of Discrimination):** Prohibits discrimination based on religion, race, caste, sex, or place of birth, which extends to protecting PwDs from discriminatory practices.
  - **Article 17 (Abolition of Untouchability):** Prevents any form of social discrimination or untouchability, reinforcing dignity and equality for PwDs.
  - **Article 21 (Right to Life and Personal Liberty):** Guarantees every individual, including PwDs, the right to live with dignity, ensuring access to essential resources and opportunities for a meaningful life.
  - **Article 19(1)(c) and (d) (Freedom of Movement and Association):** Grants PwDs the right to move freely throughout the territory of India and form associations to promote their interests.
- **Directive Principles of State Policy:**
  - **Article 41:** Obligates the State to provide support for work, education, and public assistance in cases of unemployment, old age, sickness, and disability.
  - **Article 46:** Directs the State to promote educational and economic interests of weaker sections, including PwDs, and to protect them from exploitation and social injustice.
- **Schedules of the Constitution:**
  - **Seventh Schedule (Entry 9, List II):** Places "relief for the disabled" under the jurisdiction of State Governments.
  - **Eleventh and Twelfth Schedules:** Assign responsibility for the welfare of the disabled and mentally retarded to local governments under Panchayats and Municipalities.

**Legal Provisions:**

- **Mental Health Act, 2017:** It replaces the Mental Health Act, 1987, to provide mental healthcare services and protect the rights of persons with mental illness.
- **Rehabilitation Council of India Act, 1992:** It establishes the Rehabilitation Council of India (RCI) with the mandate to:
  - Regulate and monitor services for PwDs.
  - Standardize training curricula and maintain a Central Rehabilitation Register of qualified professionals in the field.
- **National Trust Act, 1999:** It provides for a national-level body to support persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disabilities. Its Objectives include:
  - Offering care and protection in the absence of parents.
  - Facilitating the appointment of guardians and trustees.
  - Promoting independent living through equal opportunities.

## RIGHTS OF PERSONS WITH DISABILITIES (RPWD) ACT, 2016

**Background:**

- The RPwD Act, 2016, seeks to ensure that persons with disabilities (PwDs) can live with dignity, free from discrimination, and have access to equal opportunities.
- It was enacted to align with India's commitments under the **United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)**, signed in 2007.

**Key Provisions of the Act:**

- **Definition of PwD**: A PwD is defined as an individual with a long-term physical, mental, intellectual, or sensory impairment that interacts with societal barriers to hinder full and equal participation in society.
- **Expanded Definition of Disabilities:** The number of recognized disabilities has increased from 7 to **21**, with provisions for the Central Government to include more in the future.
  - New categories include **Leprosy Cured Persons, Cerebral Palsy, Acid Attack Victims, Blindness, Deafness, Autism Spectrum Disorder, Parkinson's Disease, Haemophilia**, and more.
- **Persons with Benchmark Disabilities:** Individuals certified to have at least **40% of specified disabilities** are categorized as persons with benchmark disabilities.
- **Rights and Entitlements:** Appropriate governments are mandated to ensure that persons with disabilities (PwDs) enjoy their rights equally with others.
  - Free education for children with benchmark disabilities aged **6 to 18 years.**
  - **5% reservation** in seats at government and government-aided higher educational institutions.
  - **4% reservation** in government jobs for specific categories of benchmark disabilities.
- **Accessibility**: The Act mandates the creation of accessible public buildings (both government and private) within a prescribed timeline.
- **Guardianship:** Provides for **joint decision-making** between the guardian and the PwD.
  - Guardianship is granted by District Courts or designated authorities.
- **Advisory and Regulatory Mechanisms**: Establishment of **Central and State Advisory Boards on Disability** as policymaking bodies.
  - Strengthening of the Office of the **Chief Commissioner of Persons with Disabilities** and State Commissioners for monitoring and grievance redressal.
  - Advisory Committees with disability experts will assist these offices.
- **Financial Support:** The Act mandates the creation of **National and State Funds** to provide financial aid to PwDs.

- **Financial Support:** The Act mandates the creation of **National and State Funds** to provide financial aid to PwDs.
- **Penalties for Violations:**
  - **General Offences:** Violations of the Act or related rules attract penalties, including imprisonment up to six months and/or a fine of ₹10,000. Repeated violations can lead to imprisonment of up to two years and/or fines ranging from ₹50,000 to ₹5 lakh.
  - **Offences Against PwDs:** Intentionally insulting, intimidating, or sexually exploiting a PwD is punishable with imprisonment ranging from six months to five years and fines.
- **Special Courts:** Designated Special Courts in every district will handle cases related to violations of PwD rights.

## Other Steps Taken:

- **Accessible India Campaign (Sugamya Bharat Abhiyan):** It aims to create a barrier-free and inclusive environment for PwDs across three focus areas:
  - Built-up environment.
  - Transportation systems.
  - Information and Communication Technology (ICT).
- **Deendayal Disabled Rehabilitation Scheme:** Provides financial assistance to NGOs for rehabilitation projects, promoting equal opportunities, equity, and empowerment for PwDs.
- **Assistance to Disabled Persons for Purchase of Aids and Appliances (ADIP):** Supports PwDs in acquiring durable, scientifically designed aids and appliances to enhance rehabilitation and economic potential. Implemented through NGOs, National Institutes, and ALIMCO.
- **Awareness:** To address stigma and change societal perceptions, the term **"Divyangjan"**, coined by the PM Modi, aims to recognize the abilities and potential of individuals with disabilities.
- **National Institute of Mental Health Rehabilitation (NIMHR):** Focuses on capacity building in mental health rehabilitation and developing community-based protocols to integrate individuals with successfully treated mental illness into society.

## KEY JUDICIAL PRONOUNCEMENTS

- **State of Himachal Pradesh v. Umed Ram Sharma (1986):** The Supreme Court interpreted the right to accessibility as part of the fundamental **Right to Life (Article 21)**, emphasizing its significance for ensuring equal opportunities and dignity for PwDs.
- **Disabled Rights Group v. Union of India (2017):** The Court directed institutions to comply with reservation policies and ensure equal access to educational opportunities for PwDs, strengthening their rights to education and inclusion.

# SUPREME COURT VERDICT ON PREAMBLE

Recently, the Supreme Court in its verdict of Dr Balram Singh and ors v Union of India case,
upheld the inclusion of 'socialist and secular' in the Preamble of the Constitution.

## Background:

- The order was based on a batch of petitions filed in 2020 challenging the validity of the inclusion of 'socialist' and 'secular' in the Preamble through the **42nd Constitution Amendment in 1976.**
- The petition argued that the insertions were made with retrospective effect.

## SC's Observations:

- **Constitution as a Living Document:**
  - The Supreme Court observed that the Constitution evolves with time, and the addition of "socialist" and "secular" could not be invalidated simply because the Preamble retains its original adoption date of **November 26, 1949.**
  - **Article 368** grants Parliament the power to amend the Constitution, including the Preamble.
  - The SC stated that these additions do not restrict the legislative actions of elected governments as long as they respect Constitutional rights and the **basic structure of the Constitution**
- **Secularism:** The State does not support or penalize any religion and has no religion of its own. Secularism is upheld by Articles **14, 15, 16,** and **25-30,** which ensure equality and protect religious freedoms.
  - The Supreme Court referenced **Kesavananda Bharati v. State of Kerala** and **S. R. Bommai v. Union of India**, which affirmed that **secularism is a fundamental feature of the Constitution** and an integral part of its basic structure.
  - Additionally, the Court cited **R. C. Poudyal v. Union of India**, emphasizing that **secularism mandates equal treatment of all religions, ensuring non-discrimination and fairness towards all faiths.**
- **Socialism:** Socialism in the Constitution reflects the aim of economic and social upliftment.It does not limit private entrepreneurship or the fundamental right to business and trade under **Article 19(1)(g).**
  - **SC cited the Property Owners Association v. State of Maharashtra** case which held that the Constitution allows governments to adopt economic policies that align with their electoral mandate, as long as these policies respect the Constitution.

## About Secularism:

- **Meaning:** Secularism is an ideology that advocates for the separation of religion from the state and ensures that the government remains neutral in matters of religious beliefs.

- In Indian context, it encompasses two key principles:
  - **Dharm Nirpekshta:** Separation of religion from state affairs.
  - **Sarva Dharma Samabhava:** Equal respect for all religions by the state.
- The Indian Constitution envisions a secular state where all religions are treated with equal dignity and no faith is given preference over another.

### CONSTITUTIONAL PROVISIONS

- **Article 14:** Guarantees equality before the law and equal protection of the laws to all individuals.
- **Article 16(1):** Ensures equality of opportunity for all citizens in public employment, prohibiting discrimination based on religion, race, caste, sex, descent, place of birth, or residence.
- **Article 25:** Grants the freedom of conscience and the right to freely profess, practice, and propagate religion to all individuals.
- **Article 26:** Empowers religious groups and individuals to establish and maintain institutions for religious and charitable purposes and manage their own religious affairs.
- **Article 27:** Prohibits the state from compelling any citizen to pay taxes specifically for promoting or maintaining any religion or religious institution.
- **Article 28:** Allows educational institutions run by religious groups to provide religious instruction.
- **Articles 29 and 30:** Protect the cultural and educational rights of minorities, ensuring their ability to preserve and promote their unique identity.
- **Article 51A (Fundamental Duties):** Encourages citizens to promote harmony, foster a sense of common brotherhood, and preserve the nation's rich cultural heritage.

## About Socialism:

- **Meaning:** Socialism advocates for government or collective control over production means, striving for economic equality.
  - In the Indian context, **democratic socialism** focuses on promoting social justice, equitable distribution of resources, and supporting a mixed economy with both public and private sectors.
  - An example of this is the **nationalization of banks** in 1969, when the Indian government took control of major commercial banks to ensure better access to credit for the rural and agricultural sectors, thereby supporting economic equality and social welfare.

## CONSTITUTIONAL PROVISIONS

- **Article 38:** The State shall strive to promote the welfare of the people by securing and protecting a social order by ensuring social, economic, and political justice and by minimizing inequalities in income, status, facilities, and opportunities.
- **Articles 39:** The State shall, in particular, direct its policies towards securing:
  - Right to an adequate means of livelihood for all the citizens.
  - The ownership and control of material resources shall be organized in a manner to serve the common good.
  - The State shall avoid the concentration of wealth in a few hands.
  - Equal pay for equal work for both men and women.
  - The protection of the strength and health of the workers.
  - Childhood and youth shall not be exploited.
- **Article 41:** To secure the right to work, to education, and to public assistance in cases of unemployment, old age, sickness, and disability.
- **Article 42:** The State shall make provisions for securing just and humane conditions of work and for maternity relief.
- **Article 43:** The State shall endeavor to secure all workers a living wage and a decent standard of life.
- **Article 43A:** The State shall take steps to secure the participation of workers in the management of industries.
- **Article 47:** To raise the level of nutrition and the standard of living of people and to improve public health.

# PREAMBLE

- **Meaning:** A Preamble is an introductory statement in a document that outlines its philosophy and objectives.
- **Components of Preamble:**
  - **Source of the Constitution:** The Preamble establishes that the authority of the Constitution originates from the people of India.
  - **Nature of the Indian State:** It proclaims India as a sovereign, socialist, secular, and democratic republic.
  - **Objectives:** The objectives outlined in the Preamble include securing justice, liberty, and equality for all citizens, and promoting fraternity to uphold the unity and integrity of the nation.
  - **Date of Adoption:** The Preamble also specifies the date of adoption, November 26, 1949.
- **SC Judgements regarding Status of Preamble:**
  - **Berubari Case:** The case was referred to under Article 143(1) of the Constitution concerning the implementation of the Indo-Pakistan Agreement on the Berubari Union and the exchange of enclaves.The Supreme Court stated that the **Preamble is a key to understanding the framers' intentions**, but it is **not considered part of the Constitution** and is **not enforceable** in a court of law.
  - **Kesavananda Bharati Case:** For the first time, a 13-judge bench heard a writ petition and ruled that the **Preamble is part of the Constitution**. While the Preamble is not a source of power or restrictions, it plays a crucial role in interpreting the provisions and statutes of the Constitution.
  - **Union Government vs. LIC of India (1995):** The Supreme Court reaffirmed that the **Preamble is an integral part of the Constitution**, though it remains **non-enforceable** in a court of law.
- **Amendment of the Preamble:**
  - **42nd Amendment Act, 1976:** Following the Kesavananda Bharati judgment, it was acknowledged that the Preamble is amendable under **Article 368** of the Constitution, provided the basic structure remains intact.
  - The **42nd Amendment Act, 1976** introduced the only amendment to the Preamble to date.The terms **'Socialist'** and **'Secular'** were added between **'Sovereign'** and **'Democratic'.**
  - The phrase **'Unity of the Nation'** was modified to **'Unity and Integrity of the Nation'.**

# NOT EVERY PRIVATE PROPERTY CAN BE ACQUIRED BY STATE: SC

In Property Owners Association v. State of Maharashtra, the Supreme Court ruled that not all private properties can be considered "material resources of the community" under Article 39(b) of the Constitution.

## About:

- This decision overturned earlier rulings in *State of Karnataka v. Ranganatha Reddy* **(1978)** and *Sanjeev Coke Manufacturing Company v. Bharat Coking Coal Ltd.* **(1983),** which had suggested that private properties could be considered community resources.
- The Supreme Court addressed two important questions:
  - **The validity of Article 31C:** The Court examined whether Article 31C, which deals with property rights, continues to hold validity in light of amendments and judicial decisions that have influenced its scope.
  - **Interpretation of Article 39(b):** The Supreme Court considered whether the government can classify privately owned property as "material resources of the community" and acquire it for redistribution purposes.

### ARTICLE 31C AND ARTICLE 39(B)

- **Article 31C:** It was introduced to safeguard laws aimed at promoting the equitable distribution of resources **(Article 39(b))** and preventing the concentration of wealth for the common good **(Article 39(c)).**
- **Evolution of Article 31C:**
  - **25th Amendment Act (1971):** This amendment expanded Article 31C to protect state laws implementing the principles of Article 39(b) and (c), even if they conflicted with fundamental rights under Articles 14, 19, and 31. It was introduced in response to judicial challenges to policies like bank nationalization.
  - **Kesavananda Bharati Case (1973):** The Supreme Court upheld the validity of Article 31C but emphasized that such laws would remain subject to judicial review.
  - **42nd Amendment (1976):** This amendment extended the protection of Article 31C to cover all Directive Principles of State Policy (Part IV).
  - **Minerva Mills Case (1980):** The Supreme Court invalidated the extension made by the 42nd Amendment, reaffirming that Article 31C's protection is limited to laws implementing Article 39(b) and (c).
- **Article 39(b):** It comes under the **Directive Principle of State Policy.** It directs the state to ensure the equitable distribution of material resources within the community.
- **Historical Evolution of the Interpretation of Article 39(b):**
  - **State of Karnataka v. Shri Ranganatha Reddy (1977):** A seven-judge bench, by a 4:3 majority, held that privately owned resources are not automatically considered "material resources of the community" under Article 39(b).

- **Justice Krishna Iyer's Dissent:** Justice Krishna Iyer, in his dissenting opinion, argued that the term **"material resources of the community"** under Article 39(b) should encompass all national wealth, whether public or private, that could serve the material needs of the people.
- **Influence on Later Cases:** This broader interpretation influenced judgments in cases such as *Sanjeev Coke Manufacturing Company v. Bharat Coking Coal Limited (1982)* and *Mafatlal Industries Limited v. Union of India (1996)*, which supported wider government control over private resources for public welfare.

## Evolution of the Right to Property in India:

- **Initially a Fundamental Right:** The right to property was originally a Fundamental Right under Article 19(1)(f) and Article 31, guaranteeing citizens the right to own property and compensation for its acquisition.
- **Curtailment through the 25th Amendment (1971):** The 25th Constitutional Amendment introduced Article 31C, granting immunity to laws aimed at implementing Articles 39(b) and (c) from being challenged on the grounds of violating Fundamental Rights, including property rights.
  - In the *Kesavananda Bharati case (1973)*, the Supreme Court upheld Article 31C but maintained that such laws would remain subject to judicial review.
- **Making it a Constitutional Right:** In 1978, through the 44th Constitutional Amendment, the right to property was removed as a Fundamental Right and reclassified as a constitutional right under Article 300A. This allowed the government to acquire private property for public purposes, provided fair compensation was given.

## Recent Supreme Court Judgment:

- **On Article 31C:** The Supreme Court reaffirmed the position established in the **Kesavananda Bharati case**, maintaining that Article 31C provides protection only to laws implementing Article 39(b) and (c).
- **On Article 39(b):**
  - The Court clarified that the government's authority is limited, rejecting Justice Krishna Iyer's broad interpretation.
  - It ruled that **not all privately owned property qualifies as "material resources of the community"** and, therefore, cannot be automatically acquired.
  - **Factors for Considering Material Resources:** The Court emphasized that factors such as the public trust doctrine, the resource's intrinsic qualities, its impact on

the community, scarcity, and potential harm from private monopolization must be assessed to classify a resource as a "material resource of the community."

- **Clarification on the Term "Distribute":** The Supreme Court held that the term "distribute" in Article 39(b) includes both government acquisition and redistribution to private entities, provided it serves the common good.

## MATERIAL RESOURCES

- "Material resources of the community" may encompass both public and private resources used for generating goods, services, or wealth for the benefit of the community.
- There may exist private ownership of material resources like forests, ponds, fragile areas, wetlands and resource-bearing lands. Such resources fall within the **ambit of Article 39(b).**
  - Similarly, resources like spectrum, airwaves, natural gas, mines and minerals, which are scarce and finite, may sometimes be within private control.
- **Private resources** can be **turned into material resources** of the community by means such as *Nationalization; Acquisition; Operation of law; By purchase by state; and Owner's donation.*

## JUSTICE DHULIA'S DISSENTING REMARKS

- He argued that excluding privately-owned properties from the scope of Article 39(b) ignores the potential public benefit of fair distribution of certain private resources.
- He cautioned that such an exclusion could undermine the broader goals of the Directive Principles of State Policy, especially given the persistent and significant gap between the rich and the poor.

## Implications of the Supreme Court Ruling:

- **Limits on Government Authority in Acquiring Private Property:** The ruling restricts the government's ability to acquire private property under Article 39(b). By emphasizing individual property rights, the Court has set boundaries on governmental control over private resources, ensuring a balance between public welfare and personal ownership.
- **Advancing Economic Democracy:** The Court reiterated that its role is to uphold the principles of "economic democracy" as outlined in the Constitution, rather than dictate economic policies. This approach ensures that economic policies remain inclusive and aligned with constitutional values.
- **Acknowledgment of Evolving Market Dynamics:** Recognizing significant changes in the nature of private property—ranging from traditional land and assets to modern resources like data and space technologies—the judgment underscores the importance of respecting and adapting to contemporary market realities.
- **Directive Principles as Policy Guides:** The Court reaffirmed that DPSPs are intended as guiding frameworks for policy-making rather than enforceable rights, providing flexibility for governments to pursue developmental goals.
- **Empowering Public Participation:** The ruling highlighted the importance of public involvement in shaping the country's economic policies, emphasizing adaptability to global and domestic shifts. This ensures that the economic direction is inclusive and democratic.
- **Protection of Vulnerable Communities:** The judgment provides a safeguard for marginalized groups, particularly against the unjust acquisition of small landholdings or forest lands, while promoting the responsible and equitable management of vital public resources.

| DIFFERENCE BETWEEN FUNDAMENTAL RIGHTS AND COMMUNITY RIGHTS | | |
|---|---|---|
| **Aspect** | **Fundamental Rights** | **Community Rights** |
| **Definition** | Rights guaranteed to individuals, focusing on personal freedoms and equality. | Rights granted to groups or communities to protect their cultural, religious, or collective interests. |
| **Focus** | Individual-centric: ensures personal liberty and dignity. | Group-centric: safeguards the interests of specific communities. |
| **Legal Basis** | Typically enshrined in a country's constitution and universally applicable. | Recognized through specific laws, policies, or constitutional provisions in some cases. |
| **Enforcement** | Legally enforceable in courts by individuals for violation. | Enforcement depends on national laws and policies, often requiring collective action. |
| **Applicability** | Applies equally to all individuals regardless of background. | Specific to certain groups, such as indigenous peoples or minorities. |
| **Examples** | Right to Equality, Right to Freedom, Right to Education (e.g., Articles 14–32 in India's Constitution). | Rights of Indigenous communities, minority language rights, and cultural preservation rights. |
| **Purpose** | Protects individual liberty and creates a just and equitable society. | Preserves the heritage, identity, and autonomy of communities or groups. |

# SC VERDICT ON AMU's MINORITY STATUS

Recently, the Supreme Court laid down parameters to identify a minority educational institution and directed a smaller regular bench to determine the minority status of AMU on the basis of these parameters.

## Key Highlights of the recent Supreme Court Ruling:

- **Overruling of the Azeez Basha Judgment:** The Supreme Court overturned the 1967 ruling in *S. Azeez Basha v. Union of India.*
    - In the *Azeez Basha case*, the Court had ruled that **Aligarh Muslim University (AMU)** was not a minority institution, reasoning that to qualify as such, the institution must be both established and administered by the minority community.
- **Minority Status of AMU Referred to a Regular Bench:** The Court refrained from deciding whether AMU qualifies as a minority institution.
    - It directed a regular Bench to investigate the historical facts regarding AMU's establishment and determine its minority status.
- **Core Principles of Minority Character Under Article 30(1):** The Court laid down several principles regarding the minority status of institutions:
    - The purpose of establishing a minority institution should include conserving the language, culture, and heritage of the minority community, though it need not be the sole purpose.
    - Minority institutions do not lose their status by admitting students from non-minority communities.
    - Imparting secular education does not affect an institution's minority character.
    - Minority institutions receiving government aid cannot compel students to participate in religious instruction.
    - Institutions fully funded by the government cannot provide religious instruction but still retain their minority character.
- **Supreme Court's Test to Determine Minority Character of an Institution:** The Supreme Court laid down a structured **two-fold test** to assess whether an institution genuinely qualifies as a minority institution. This involves **"piercing the veil"** to examine the institution's origins and purpose. The **criteria, or "indicia,"** focus on **two key aspects**:
    - **Establishment (Tracing the Institution's Genesis):** This part of the test delves into the origins, purpose, and actual implementation of the institution's founding idea. The court emphasized several steps in this analysis:
    - **Tracing the Origin:** Courts must investigate the inception of the institution to identify the **"brain behind the establishment."** This involves determining who initially conceived the idea and whether it was rooted in the minority community.

- Evidence may include letters, correspondence with community members or government officials, and other relevant documentation.
    - **Purpose of 'Establishment':** The institution's purpose must predominantly serve the interests of the minority community, even if that is not its sole objective.
        - To substantiate this, courts may examine historical correspondence, speeches, or records highlighting the community's educational challenges and the necessity of the institution.
- **Implementation of the 'Idea':** Once the intent is established, courts must evaluate how the idea materialized. Key considerations include:
    - Who contributed funds for the institution?
    - How was land acquired or donated?
    - Who managed permissions, construction, and infrastructure development?
- **Administration of Minority Institutions:** The Supreme Court clarified that minority educational institutions are not obligated to appoint members of the minority community for administration, as it is a matter of choice. However, the court provided key criteria for assessing the role of administration in affirming the institution's minority character:
- **Assessment of Administrative Setup:** While minority members are not mandated to handle administration, the court emphasized that the administrative framework should "affirm" the institution's minority character.
    - Courts can evaluate whether the administration actively works to **protect and promote the interests of the minority community**. If it appears that the administration fails in this regard, it may suggest that the institution was not genuinely established for the benefit of the minority.
- **Institutions established before the Constitution:** For institutions founded before the Constitution came into effect (e.g., Aligarh Muslim University), the court highlighted the importance of examining the administrative functioning as of **January 26, 1950**, the date of the Constitution's commencement. Courts must investigate whether:
    - The administration at that time aligned with the institution's minority character.
    - Any "regulatory measures" were implemented that shifted control away from the minority founders.
- **Nature of Incorporation vs. Establishment:**
    - The judgment clarified that legislative incorporation of an institution does not negate its minority status.
    - Merely formalizing a university through legislation does not alter the fact that it was originally established by a minority community.

- The Court rejected the argument that AMU was established by Parliament simply because the statute refers to its establishment. Such a narrow interpretation would defeat the purpose of Article 30(1).
- **Applicability to Pre-Constitution Institutions:**
  - The Court emphasized that Article 30(1) applies to institutions established by minorities even before the Constitution's commencement.
  - It dismissed the argument that Muslims were not considered a minority in 1920 or did not perceive themselves as such.
  - Institutions founded before the Constitution's enactment are entitled to protection under Article 30(1), ensuring the provision is not limited to post-Constitution establishments.
- **Balancing Minority Rights and Constitutional Goals:**
  - The Court cautioned against using strict legislative language to determine minority status, as this could make the fundamental right under Article 30(1) subordinate to statutory enactments.
  - The term "established" in Article 30(1) was interpreted broadly to align with the article's objectives, ensuring the protection of minority rights while balancing societal interests.

## ADDITIONAL INFORMATION

- A **regular bench** in the Supreme Court consists of 2-3 judges and handles routine cases, including civil and criminal matters, that do not involve significant constitutional issues.
- A **constitutional bench** comprises 5 or more judges and is specifically formed to hear cases involving important constitutional questions, such as the interpretation of fundamental rights or the validity of laws. Its decisions are final and authoritative.

## CONSTITUTION PROVISIONS

- **Article 30 (1):** All minorities, whether based on religion or language, **shall have the right to establish and administer educational institutions** of their choice.
  - **Article 30(1A)** deals with the **fixation of the amount for acquisition of property** of any educational institution established by minority groups.
- **Article 30(2)** states that the government **should not discriminate** against any educational institution on the ground that it is under the management of a minority, whether based on religion or language, **while giving aid**.
- **Minority Status Exemptions:** Article 15(5) exempts minority educational institutions from implementing seat reservations for SCs and STs.

*Note:* Minority Educational Institutions (MEIs) are defined under the **National Commission for Minority Educational Institutions Act, 2004,** as colleges or other institutions that are established or maintained by a minority or minority groups.

## ALIGARH MUSLIM UNIVERSITY (AMU)

- **Location:**
  - A prestigious government-funded university located in Aligarh, Uttar Pradesh.
  - Renowned for fostering inclusive education and academic excellence.
- **Historical Evolution:**
  - Founded in 1875 by Sir Syed Ahmad Khan as the Mohammedan Anglo-Oriental College.
  - Established to promote education among Muslims post the 1857 Indian War of Independence.
  - Raja Jai Kishan played a crucial role in its formation.
  - Transitioned to Aligarh Muslim University in 1920 under the Aligarh Muslim University Act.
- **Accreditation and Recognition:** Accredited by the University Grants Commission (UGC).

## Significance of the Supreme Court Verdict

- **Strengthening Minority Rights Framework:**
  - The ruling reinforces the constitutional guarantee under Article 30(1), ensuring that minority communities retain their right to establish and administer educational institutions without undue interference.
  - By interpreting "establishment" in a broad and inclusive manner, the Court has safeguarded the intent of the Constitution to protect cultural, linguistic, and educational rights of minorities.
- **Balancing Minority Protection with Constitutional Goals:**
  - The judgment strikes a balance between protecting minority rights and upholding broader constitutional principles, such as inclusivity and equality.
  - By clarifying that admitting non-minority students or providing secular education does not dilute the minority character of an institution, the Court has ensured that minority institutions can contribute to national integration while preserving their unique identity.
- **Clearer Guidelines for Determining Minority Status:**
  - The introduction of a structured **three-part test**—focusing on establishment, implementation, and administration—provides a clear framework for courts and policymakers to assess the minority character of educational institutions.
  - This eliminates ambiguity and ensures consistency in interpreting and applying Article 30(1).
- **Recognition of Historical Context and Evolving Realities:**
  - The Court acknowledged the importance of historical context, ensuring that pre-Constitution institutions like AMU are not excluded from Article 30(1) protections.

# PERFORMANCE AUDIT REPORT ON IMPLEMENTATION OF THE 74th CAA BY CAG

A performance audit report on implementation of the 74th Constitutional Amendment Act (CAA) has been released by the Comptroller and Auditor General of India (CAG).

## About:

- The 74th Constitutional Amendment Act, came into effect in **1993**, which provided a clear mandate for **democratic decentralisation.**
  - It created democracy at the grass root level through self-governing local bodies in urban areas.
  - It empowered Urban Local Bodies (ULBs) to perform 18 functions as listed in the 12th Schedule of the Constitution.
- **Audit by CAG:** The **aim of this Audit** was to **ascertain empowerment of ULBs** through devolution of adequate resources for effective discharge of functions, as enshrined in 12th Schedule.
  - The performance audits were conducted **between 2014 and 2021 across 393 urban local bodies in 18 states.**
  - A Performance Audit Report is a specialized assessment conducted to evaluate the efficiency, effectiveness, and economy of government programs, policies, or operations.
    - It goes beyond financial compliance to analyze whether the intended objectives and outcomes of an initiative have been achieved, how resources were utilized, and whether processes were carried out in an optimal manner.

## Findings of the CAG Report:

- **Devolution of Functions:** 17 of the 18 functions were devolved in 18 states, **just 4 functions were effectively devolved with complete autonomy.**
  - 4 functions include burial grounds, public amenities, prevention of cruelty to animals and regulation of slaughter houses.
  - **Only 9 states** (Chhattisgarh, Haryana, Jharkhand, Madhya Pradesh, Maharashtra, Manipur, Odisha, Punjab and Tripura) have devolved all the 18 functions.



DEVOLUTION OF MUNICIPAL FUNCTIONS IN 18 STATES
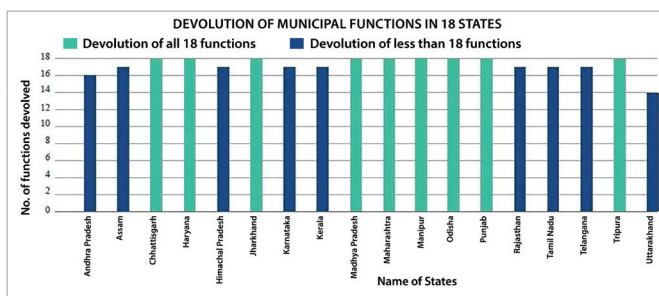
- **Dependence on State Government:** The State Government's overarching powers, such as mandatory approvals for ULB budgets and projects, stifled independent decision-making.

- Even ULB action plans, once approved by councils, required additional clearance from District Urban Development Cells (DUDCs) and Deputy Commissioners.
- This dependency contradicts the principle of decentralization, rendering ULBs as mere administrative arms rather than empowered local governments.
- **Financial Constraints:**
  - **Heavy Reliance on Fiscal Transfers:** ULBs depended on the State Government for 63% of their revenue, while only 37% came from their own sources.
  - **Own Revenue Bottlenecks:** Outdated property tax assessments, non-revision of rates, and absence of robust collection mechanisms limited revenue generation.
  - Delays in releasing ₹15,564 crore recommended by the 4th State Finance Commission (SFC) severely impacted ULB finances. Financial uncertainty hindered ULBs' ability to plan and execute developmental projects effectively.
- **Severe Human Resource Shortages:** ULBs had an average of just 1.94 to 5.38 employees per 1,000 population (2011), down from 2.24 to 5.80 in 2001. This was significantly below recommended standards, particularly in technical roles.
  - In many ULBs, technical posts like engineers, health inspectors, and urban planners were vacant, leading to poor service delivery. Some ULBs employed non-qualified staff to fill critical executive roles, violating statutory provisions.
  - These shortages crippled ULBs' ability to fulfill their obligations, leaving them reliant on state departments for essential services.
- **Non-Functioning Institutional Mechanisms:** The absence of functional institutional mechanisms for citizen participation and coordinated planning weakened local governance and reduced accountability.
  - **Ward Committees:** Except for BBMP, no city corporations in Karnataka had constituted Ward Committees, despite being mandatory under the Karnataka Municipal Corporation Act. This left citizens with little say in local governance.
  - **Metropolitan Planning Committees (MPCs):** For instance, Bengaluru's MPC met only three times between 2014 and 2018, far below the required quarterly meetings. No comprehensive development plan was prepared for the Bengaluru Metropolitan Area.
- **Elections and Governance Issues:** Of 280 ULBs, elections were overdue in 23 by 2019-20 due to court cases. In 187 ULBs, elections were held, but councils were not formed, leaving

# CONSTITUTIONAL PROVISIONS

## Provisions of 74th CAA:

- **Classification of Municipalities:** The Constitution provides for the creation of three types of municipalities in every state:
  - Nagar Panchayat (for transitioning areas from rural to urban), Municipal Council (for smaller urban areas), and Municipal Corporation (for larger urban areas).
- **Composition of Municipalities:** All members of a municipality are directly elected by the people, with each municipal area divided into territorial constituencies called wards. The state legislature determines the method of electing the chairperson and can also provide representation for:
  - Experts with special knowledge (non-voting members).
  - Members of Parliament, state legislatures, and legislative councils from the municipal area.
- Chairpersons of committees other than Ward Committees.
- **Ward Committees:** As per Article 243S, Ward Committees are mandatory in municipalities with populations exceeding 3 lakhs.
- **Reservation of Seats:** Article 243T mandates reservation of seats in municipalities for SCs and STs in proportion to their population in the municipal area.
  - At least one-third of these reserved seats are allocated to women.
  - One-third of the total seats, including reserved seats, are set aside for women, distributed by rotation across constituencies.
  - The chairperson's position is reserved for SCs, STs, and women, as per state legislature provisions.
- **Duration of Municipalities:** Under Article 243U, a municipality's term is five years from the date of its first meeting, unless dissolved earlier. Before dissolution, municipalities must be given an opportunity to be heard.
- **Disqualification of Members:** A person is disqualified from being elected or serving as a municipal member if:
  - They are disqualified under state laws for elections to the state legislature.
  - They do not meet the age requirement of 21 years (min).
  - State legislature-appointed authorities decide on disqualification cases.
- **State Election Commission:** The State Election Commission oversees the preparation of electoral rolls and conducts municipal elections, with full authority and control over the process (Article 243K).
- **Powers and Functions of Municipalities:** Article 243W empowers state legislatures to grant municipalities the powers and responsibilities necessary for self-governance, including:
  - Preparing plans for economic development and social justice.
  - Performing functions and implementing schemes related to matters listed in the Twelfth Schedule.
  - Delegating responsibilities to committees for implementing these functions.

- **Finances of Municipalities:** The state legislature may authorize municipalities to levy, collect, and appropriate taxes.
  - Assign certain state-collected taxes, tolls, and fees to municipalities.
  - Provide grants-in-aid to municipalities.
  - Create municipal funds for financial management.
- **Audit of Accounts:** The state legislature determines the method and scope of municipal account audits.
- **District Planning Committees:** Article 243ZD mandates the establishment of District Planning Committees to consolidate plans from panchayats and municipalities, creating a comprehensive development plan for the district.
- **Metropolitan Planning Committee:** As per Article 243ZE of the Constitution, a Metropolitan Planning Committee is to be established in every metropolitan area to prepare a draft development plan for the region as a whole. The state legislature is empowered to make provisions regarding:
  - The composition of the committee.
  - The process for electing its members.
  - The committee's functions, particularly in relation to district planning.
  - The method of electing the committee's chairperson.
  - The law specifies that 66% of the committee's members must be elected by and from among the elected representatives of municipalities and panchayats within the metropolitan area.

## 12th Schedule of the Constitution:

It contains the **powers, authority and responsibilities** of Municipalities. This schedule has **18 items.**

- Regulation of land use and construction of land buildings.
- Urban planning including the town planning.
- Planning for economic and social development.
- Urban poverty alleviation.
- Water supply for domestic, industrial and commercial purposes.
- Fire services.
- Public health sanitation, conservancy and solid waste management.
- Slum improvement and up-gradation.
- Safeguarding the interests of the weaker sections of society.
- Urban forestry, protection of environment and promotion of ecological aspects.
- Construction of roads and bridges.
- Provision of urban amenities and facilities.
- Promotion of cultural, educational and aesthetic aspects.
- Burials and burials grounds, cremation and cremation grounds and electric crematoriums.
- Cattle ponds, prevention of cruelty to animals.
- Regulation of slaughter houses and tanneries.
- Public amenities including street lighting, parking spaces, bus stops and public conveniences.
- Vital statistics including registration of births and deaths.

governance in the hands of administrators.Without elected councils, ULBs lacked democratic accountability, while frequent leadership changes created policy discontinuity.

- ◆ **Ward Delimitation:** Only 4 of the 15 states, namely Himachal Pradesh, Kerala, Maharashtra and Tamil Nadu have empowered state election commissions with ward delimitation while in the remaining 11, it is vested with the State Government.
- ◆ **Direct Elections for Mayor:** Only 5 states (Chhattisgarh, Haryana, Jharkhand, Tamil Nadu and Uttarakhand) have the provision for direct election of mayors.

- **Overlap with Parastatals:** Functions such as urban planning, water supply, and slum improvement were controlled by state agencies. ULBs often acted as mere implementing agencies.
  - ◆ The exclusion of ULBs from critical functions reduced their authority and financial capacity, undermining the decentralized governance model.
  - ◆ *For instance,* ULBs were responsible for maintaining water supply networks, but infrastructure development was entirely managed by Karnataka Urban Water Supply and Sewerage Board (KUWS&DB).

## PARASTATALS

- Parastatals are institutions/organizations, which are wholly or partially owned and managed by the government (either autonomous or quasi-governmental).
- Some of the important Parastatals are District Rural Development Agency (DRDA), District Health Society (DHS), District Water and Sanitation Committee (DWSC).

## Recommendations:

- **Autonomy for Urban Local Bodies (ULBs):** The State Government must transfer decision-making powers directly to ULBs, reducing dependence on state-level approvals for projects and budgets. This includes limiting state control over functions like urban planning, land use, and slum development.
- **Strengthening Institutional Mechanisms:** District Planning Committees (DPCs) and Metropolitan Planning Committees (MPCs) should meet regularly to prepare integrated development plans. Bengaluru's MPC, for instance, must prepare a comprehensive development plan, which it has failed to do.
- **Ward Committees:** Ward Committees must be constituted in all city corporations to enable citizen participation in governance. These committees should oversee local development schemes, fund utilization, and ensure transparency, as mandated under the KMC Act.
- **Timely Elections:** The delimitation of wards should be entrusted to the State Election Commission to avoid delays in ULB

elections. With 210 ULBs operating without elected councils, timely elections are critical for ensuring accountability and democratic functioning.

- **Implementation of State Finance Commission (SFC) Recommendations:** The government must expedite the implementation of SFC recommendations, ensuring timely fiscal transfers. ULBs faced a ₹15,564 crore shortfall (2014-19), severely affecting their financial health and service delivery capabilities.
- **Revenue Enhancement:** ULBs must be given autonomy to revise property tax rates, introduce advertisement taxes, and enforce full cost recovery for services like water supply. Activating the Karnataka Property Tax Board is essential for improving tax collection efficiency.
- **Improved Budgeting:** ULBs should adopt realistic and scientific budgeting methods to align revenues with actual collections and expenditure needs. For example, Belagavi City Corporation utilized only 62% of its ₹370 crore budget due to flawed projections.
- **Manpower and Capacity Building:** ULBs need authority to recruit and train staff to address severe technical and administrative vacancies. With an average of only 5.38 employees per 1,000 population, ULBs struggle to deliver essential services effectively.
- **Integration of Parastatals:** Parastatals like UDAs and KUWS&DB should align their functions with ULBs to avoid duplication and inefficiency. Revenue generated by parastatals, such as development charges, should be shared with ULBs to bolster their finances.
- **Delegation of Financial Powers:** ULBs must be allowed to manage their funds and approve expenditures independently without requiring state government sanction. This will expedite project execution and enhance local accountability.

## BEST PRACTICS

**India:**

- **Indore Municipal Corporation, Madhya Pradesh:** India's cleanest city, known for effective waste segregation, composting, GPS-based waste monitoring, and citizen engagement.
- **Pimpri-Chinchwad Municipal Corporation, Maharashtra:** Pioneers e-governance with online services for taxes and grievances, using GIS for transparent urban planning.

**International:**

- **Urban Redevelopment Authority (Singapore):** Ensures efficient land use and high living standards through strategic urban planning.
- **Seoul Metropolitan Government (South Korea):** Leads smart city projects, public transport integration, and ecological restoration like the Cheonggyecheon Stream.

# K SANJAY MURTHY APPOINTED AS THE CAG

Recently, the President of India appointed K Sanjay Murthy as the Comptroller and Auditor General (CAG) of India.

## Historical Background:

- The CAG's role traces back to British India, where Lord Canning initiated administrative reforms before the Mutiny of 1857.
- **Establishment of Separate Department (1858):** In May 1858, a dedicated department was established with an Accountant General overseeing accounting and auditing functions under the East India Company.
- **Imperial Audit under British Crown (Post-Mutiny):** Following the Mutiny, the British Crown assumed control and enacted the Government of India Act in 1858, laying the foundation for the Imperial Audit.

- ◆ **Sir Edward Drummond** became the first Auditor General in 1860, and the term 'Comptroller and Auditor General of India' was officially used in 1884.
- ◆ He took the position on 16th November, 1860 and to mark the significance 16th November is commemorated as Audit Diwas of our nation.
- **Independence through Montford Reforms (1919):** The Montford Reforms of 1919 granted independence to the Auditor General from the government, marking a significant milestone.
- **Strengthening Position under Government of India Act (1935):** The Government of India Act in 1935 further solidified the Auditor General's position by introducing Provincial Auditors General in a federal structure.

| CONSTITUTIONAL AND LEGAL PROVISIONS RELATED TO CAG | |
|---|---|
| **Articles** | **Description** |
| Art. 148 | • **Appointment:** The President shall appoint the CAG of India through a warrant under his hand and seal. <br> • **Salary and Other Conditions of Service:** Parliament, by law, determines the salary and other conditions of service for the CAG. <br> • **Further Office/Reappointment:** The CAG is not eligible for subsequent office appointments under both the central and state governments. <br> • **Expenditure Charged upon CFI:** The entire expenditure, encompassing salaries, allowances, and pensions of the CAG and individuals serving in that office, is charged to the Consolidated Fund of India (CFI). |
| Art. 149 | • **Duties and powers to be determined by Parliament:** The CAG shall perform such duties and exercise such powers as may be prescribed by or under any law made by Parliament. Some of the duties of CAG are as follows: <br> ◆ He audits the accounts related to all expenditures from the **Consolidated Fund of India, the consolidated fund of each state,** and the consolidated fund of each union territory having a Legislative Assembly. <br> • He audits all expenditures from the **Contingency Fund of India and the Public Account of India** as well as the contingency fund of each state and the public account of each state. <br> • He audits all trading, manufacturing, profit, and loss accounts, balance sheets, and other subsidiary **accounts kept by any department of the Central Government and state governments.** |
| Art. 150 | • **Form of accounts of union and states:** The accounts of the union and of the states shall be kept in such form as the President may, on the advice of the CAG, prescribe. |
| Art. 151 | • **Report to President:** The CAG's reports concerning the union's accounts are to be presented to the President, who will then ensure their presentation before both Houses of Parliament. |
| Art. 279 | • **Certification of Net Proceeds:** The CAG determines and certifies the net proceeds of any tax or duty. <br> • **Finality of Certification:** The certification provided by the CAG is conclusive and final. <br> • **Note:** 'Net proceeds' refers to the proceeds of a tax or duty subtracted from the cost of collection. |
| CAG (Duties, Powers, and Conditions of Service) Act, 1971 | • **Tenure:** The incumbent serves a term of six years or until reaching the age of 65, whichever comes earlier. <br> • **Resignation:** CAG can resign any time from his office by addressing the resignation letter to the president. <br> • **Removal:** The President holds the power to remove the CAG, following the same grounds and procedures applicable to the removal of a Supreme Court judge. <br> • **Condition of Service:** The Parliament determines the salary and service conditions, ensuring that they remain unchanged to the detriment of the CAG after their appointment. |

## Significance of the CAG:

- **Financial Accountability of Executive:** The CAG collaborates with the **Public Account Committee**(PAC) in reviewing audit reports.CAG acts as a **guide, friend, and philosopher** of the PAC. This partnership ensures executive accountability in financial administration and fiscal federalism.

### ABOUT PUBLIC ACCOUNT COMMITTEE

- The PAC is the **oldest parliamentary committee** in Indian legislative affairs and has been crucial in upholding the principle of accountability as it exercises oversight of public expenditure.
- First set up in 1921 in the wake of the **Montague-Chelmsford Reforms.**
- **Members:** The **Public Accounts Committee** consists of **22 members elected** according to the **principle of proportional representation** by means of **single transferable vote:**
  - Fifteen members elected by Lok Sabha every year from amongst its members.
  - Seven members of Rajya Sabha elected by that House in like manner are associated with the Committee.

- **Safeguarding Separation of Powers:** CAG contributes to maintaining the separation of powers between the legislature and executive, ensuring that government financial activities align with legislative intentions.
- **CAG's Influence on Local Government Auditing:** CAG has established foundational manuals and guidance for local government auditing. Through **Annual Technical Inspection Reports** (ATIR), state audit offices assess the efficiency of local governments in delivering devolved services at the grassroots level.
- **Facilitating Good Governance:** Through audit findings and recommendations, the CAG actively promotes good governance practices, assisting governments in optimizing operations, reducing inefficiencies, and upholding financial discipline.
- **Exposing Collusive Corruption:** CAG's impactful audit reports, such as the **2G spectrum and coal mine allocation scams,** exposed significant financial wrongdoings, restoring public trust. By estimating losses, like **Rs. 185,600 crores in the coal scam,** CAG acts as a vital check against financial **malpractices, ensuring accountability and safeguarding public funds.**
  - In the 1980s **Rajiv Gandhi**, the then Prime Minister of India, said that for every rupee targeted towards the welfare and poverty alleviation only a mere fraction of **15 paise,** reaches to the intended beneficiary. Well, the CAG can give the accounts as to where the rest of the **85 paise disappeared.** This is the importance of CAG.
- **Promoting Social Auditing:** Social audit is an interesting tool for facilitating citizen oversight.
  - *For instance*, the Ministry of Rural Development in consultation with the CAG office notified the **Mahatma Gandhi National Rural Employment Audit of Scheme Rules** in 2011.
  - The rules envisaged social audit units in each state as well as the audit process for social audit and follow-up action.

### DR. B.R AMBEDKAR ON CAG

"I am of the opinion that CAG is probably the most important officer in the Constitution of India. He is the one man who is going to see that the expenses voted by Parliament are not exceeded, or varied from what has been laid down by Parliament in the Appropriation Act."

### TYPES OF AUDIT PERFORMED BY CAG

- **Regulatory Audit:** This audit type aims to verify whether authorized funds were appropriately spent and whether expenditures align with relevant laws, rules, and regulations.
- **Supplementary Audit:** CAG conducts supplementary audits in Public Sector Undertakings (PSUs) even after commercial audits, focusing on detecting potential leakages.
- **Propriety Audit:** This audit goes beyond expenditure scrutiny, assessing whether spending aligns with public interest, and questioning the wisdom and economy of expenditure to identify instances of improper spending and misuse of public funds.
- **Efficiency Audit:** Focused on optimal results from investments, efficiency audits ensure prioritized and well-channeled investments, examining whether the money invested yields the best possible outcomes.
- **Performance Audit:** Performance audits assess the effectiveness of government programs, like NREGA, in achieving desired objectives at the lowest cost and delivering intended benefits, without delving into policy merits and demerits.
- **Environmental Audit:** Reflecting a contemporary concern, environmental audits by the CAG address challenges in India related to environmental conservation. Over 100 audits on issues like biodiversity, river pollution, and waste management have been conducted to identify critical problems and propose solutions involving all stakeholders.

## Issues with CAG:

- **Conflict of Interest in Appointment Process:** The current method of appointing the CAG involves the Cabinet Secretary compiling a shortlist for the Finance Minister, who subsequently presents it to the Prime Minister, raising concerns about potential conflicts of interest.
  - Also, appointment of the CAG by the Union Government without any consultation with state governments contradicts the **principle of Cooperative Federalism.**
  - The appointment of former secretaries or administrators,

such as **GC Murmu as CAG,** raises concerns about the perceived compromise in the independence of the institution.

- **Word 'Audit' not defined:** The term 'audit' remains undefined in both the Constitution and the CAG Act of 1971. Our understanding has relied on a historical context spanning 150 years, established traditions, existing legal provisions, and international norms.
- **Post-facto Audit:** The CAG's reports are retrospective, meaning it audits expenditures only after they have been incurred.
- **Criticism due to Exceeding Mandate:** Certain experts have criticized the CAG's reports on 2G and coal block allocations, contending that they surpassed its jurisdiction and mandate.
  - **Fear of the 3Cs - CBI, CAG, and CVC:** This criticism has given rise to a climate of apprehension, commonly known as the "3Cs fear" (CBI, CAG, and CVC), fostering a **risk-averse mindset among bureaucrats**.
- **Lack of Economic Expertise in Auditing:** There is a noted deficiency in economic expertise within both the CAG and the Indian Audit and Accounts Service, particularly concerning the auditing of natural resources such as coal.
- **Exclusion of NGOs, PRI, and ULBs from Audit Scope:** Funds allocated to Non-Governmental Organizations (NGOs) and elected local bodies (PRI and ULB) currently fall outside the audit purview, lacking provisions for scrutiny.
- **Limitation on Secret Service Expenditure:** The CAG is restricted from soliciting specific details on expenditures incurred by executive agencies and must acknowledge a certificate from the competent administrative authority.
- **Lack of Clarity in Audit Scope:** Ongoing debates surround the question of whether the CAG can audit power distribution companies or Public-Private Partnership projects, leading to a lack of clarity in its jurisdiction.
- **Delays and Reduction in CAG Reports:** The number of CAG reports related to central government ministries and departments has significantly decreased, **dropping from 55 in 2015 to a mere 14 in 2020,** marking a substantial 75 percent decline, according to recent information obtained through a Right to Information (RTI) application.

### FAMOUS CAG REPORTS

- **Krishna-Godavari (KG) D-6 Gas Block (2011):** The CAG criticized improper cost escalations and production delays by the operator, causing loss to the government. Highlighted regulatory inefficiencies and potential loss of royalties.
- **2G Spectrum Allocation (2011-2012):** The CAG reported a loss of Rs. 1.76 lakh crores due to underpricing and non-transparent allocation of spectrum licenses.The allocation was deemed arbitrary, benefiting certain telecom companies unfairly.

- **Coal Mine Allocation Scam (2012):** CAG estimated undue benefits of Rs. 1.86 lakh crores to private companies due to non-competitive allocation of coal blocks between 2004-2009.Highlighted lack of transparency and loss to the public exchequer.
- **Irregularities in Dwarka Expressway (2023):** The CAG's reports have unveiled substantial cost escalations and financial mismanagement in major infrastructure projects.
  - *For instance*, the construction cost of the Dwarka Expressway skyrocketed from ₹18 crore per kilometre to ₹250 crore per kilometre.
- **Healthcare Scheme Irregularities (2023):** The audit of the **Ayushman Bharat—Pradhan Mantri Jan Arogya Yojana (PMJAY)** revealed that ₹6.97 crore was disbursed for the treatment of patients who were recorded as deceased.
  - Such discrepancies underscore the need for robust oversight mechanisms to prevent financial irregularities.

## Way Forward:

- **Former CAG Vinod Rai's Recommendations:**
  - **Inclusion of Various Entities under CAG Oversight:** Encompass Private-Public Partnerships (PPPs), Panchayati Raj Institutions, and government-funded societies within the purview of the CAG for comprehensive auditing.
  - **Amend CAG Act of 1971 for Modern Governance:** Propose amendments to the CAG Act of 1971 to align with evolving governance dynamics and ensure its relevance. It requires amendment to grant the CAG punitive powers in instances of government agencies delaying the submission of information.
  - **Adopt Collegium Mechanism for CAG Selection:** Introduce a collegium-type mechanism, akin to selecting a Chief Vigilance Commissioner (CVC), for the appointment of a new CAG.
- **Citizen Engagement in Auditing Process:** Citizen engagement guides audit in identifying high-risk areas of possible mismanagement and inefficiencies in governance, thereby improving focus and effectiveness.
- **Modernize Governance Auditing:** Align the CAG's auditing practices with modern governance challenges by leveraging digital technology to audit issues such as the implementation of **Sustainable Development Goals** and the **Goods and Services Tax.**
- **Continuous Training and Skill Development:** Invest in continuous training and skill development for auditors to keep them abreast of evolving governance dynamics and technological advancements.
- **International Practices (Britain):** The CAG of India serves solely as an Auditor General, without the additional role of a Comptroller. In contrast, the CAG in Britain exercises the powers of both a Comptroller and an Auditor General.

# RECONSTITUTION OF INTER-STATE COUNCIL

The Inter-State Council, aimed at fostering Centre-State and inter-state coordination and cooperation, has been reconstituted.

## About:

- **Establishment:** The Inter-State Council is established under **Article 263** of the Constitution, which authorizes the President of India to create such a body to enhance coordination among states.
  - The ISC for the first time was formally **established in 1990** by a **presidential order** based on the recommendations of the **Sarkaria Commission on center-state relations.**
- **Current Composition:** PM as its chairman. It includes all chief ministers and nine Union ministers as members, along with 13 Union ministers designated as permanent invitees.
- **Functions:** The Inter-State Council addresses matters of common interest between the states and the Union, providing recommendations to coordinate policies and actions. It also examines issues impacting Centre-State and inter-state relations to promote smooth governance.
- **Inter-State Council Secretariat (ISCS):** Established in New Delhi in 1991, is headed by a Secretary to the Government of India. Since 2011, the ISCS has also taken over the secretarial responsibilities of the Zonal Councils.

## Benefits:

- **Enhanced Policy Legitimacy:** Policies formulated through ISC discussions gain broader acceptance among states, reducing friction and promoting harmonious implementation.
- **Balanced Power Dynamics:** The ISC helps maintain equilibrium between the Union and state governments, preventing dominance by either side and ensuring decisions respect the constitutional framework and federal principles.
- **Conflict Resolution:** Serving as a forum for dialogue, the ISC addresses inter-state disputes and facilitates amicable solutions, thereby strengthening the federal structure.
- **Policy Coordination:** By discussing subjects of common interest, the ISC ensures coordinated policy actions across states, leading to more effective governance.
- **Trust Building:** Regular interactions within the ISC foster trust between the central and state governments, which is crucial for implementing nationwide reforms like the GST

## Key Challenges Facing the Inter-State Council (ISC):

- **Infrequent Meetings:** The ISC has only convened 11 times since 1990, far below the required three meetings annually. Its last meeting in July 2016 underscores the irregularity.
- **Non-Binding Recommendations:** The advisory nature of the ISC's recommendations limits their enforceability, reducing its effectiveness in resolving disputes and fostering strong Union-State coordination.

- **Lack of Follow-Up Mechanisms:** The absence of a structured system to monitor the implementation of recommendations weakens its practical impact and reduces accountability.
- **Political Influence:** Ideological differences between central and state governments can hinder consensus-building, affecting the ISC's ability to address contentious issues effectively.
- **Overlapping Mandate:** The ISC's broad scope often overlaps with bodies like NITI Aayog, creating redundancies and diluting its focus on inter-state and Centre-State relations.
- **Perceived Union Dominance:** The ISC is often seen as Union-driven, making states hesitant to engage fully, which affects its role in fostering cooperative federalism.
- **Insufficient Resources:** The ISC frequently faces financial and administrative constraints, limiting its ability to conduct regular meetings, research, and follow-ups effectively.

### OTHER MECHANISMS FOR CENTRE-STATE COOPERATION

- **Zonal Councils:** Established under the **States Reorganisation Act of 1956**, these statutory bodies promote interstate cooperation and coordination.
- **River Water Dispute Tribunals:** Constituted under the **Inter-State River Water Disputes Act, 1956**, these tribunals address conflicts between states over river water sharing.
  - **Article 262** of the Constitution empowers Parliament to legislate on the adjudication of disputes regarding the use, distribution, or control of inter-state rivers and river valleys.
- **GST Council:** Established under **Article 279A** of the Constitution, this constitutional body addresses key issues related to GST implementation in India.

## Way Forward:

- **Strengthening Article 263:** The Punchhi Commission (2010) recommended transforming the ISC into a specialized body for managing intergovernmental relations and federal challenges. Amending Article 263 to expand its mandate would empower the ISC to address both inter-state and Union-State issues effectively.
- **Ensuring Regular Meetings:** Reviving the requirement for regular and timely meetings would ensure consistent dialogue, allowing states to contribute actively to policy discussions and decision-making.
- **Focused Agendas:** Setting a clear and structured agenda for each meeting would enable the ISC to prioritize critical issues like water-sharing disputes, infrastructure development.

# INDIA'S UNDERTRIAL PRISONERS

Recently, the Union Home Minister said that undertrials who have spent more than a third of the maximum prescribed sentence for the crime they are accused of committing should be released before Constitution Day (November 26).

## About:

- Undertrial prisoners are those who are in judicial custody while awaiting trial. Despite being presumed innocent until proven guilty, many of these individuals spend years in prison due to prolonged legal procedures and their inability to afford bail.
- **Section 479 of the Bharatiya Nagarik Suraksha Sanhita (BNSS):** It allows for the release of first-time offenders who have served one-third of their maximum sentence and other undertrials who have served half of their maximum sentence.
  - This same standard was provided under the previously applicable *Section 436A of the Code of Criminal Procedure, 1973 (CrPC).*

## Concerns Related to Undertrials in India:

- **Prolonged Detention:** Many undertrials spend years in custody due to delays in investigations and judicial proceedings, often exceeding the maximum sentence they would have served if convicted.
- **Overcrowded Prisons:** A large number of undertrials contributes significantly to prison overcrowding, which hampers prison administration and deteriorates living conditions.

### FACTS RELATED TO OVERCROWDING

- According to the **NCRB's report Prison Statistics India 2022,** Indian prisons had an **occupancy rate of 131%,** with 5,73,220 inmates against a capacity of 4,36,266.
- 4,34,302 are undertrials against whom **cases are still pending,** amounting to nearly **75.8% of all prisoners in India.**
- As of December 31, 2022, around **8.6% of all undertrial prisoners** had been in prison for **more than three years.**

- **Violation of Rights:** Undertrials are presumed innocent until proven guilty, yet their prolonged incarceration often results in the denial of basic rights, including access to legal aid and humane living conditions.
- **Socioeconomic Impact:** A majority of undertrials come from marginalized communities and lack financial resources to secure bail, further perpetuating inequality in the justice system.
- **Mental and Emotional Distress:** Long periods of uncertainty in custody lead to significant psychological and emotional stress for undertrials, affecting their mental health.
- **Inadequate Legal Representation:** Many undertrials are unable to afford effective legal counsel, leaving them dependent on an overburdened legal aid system.

- **Social Stigma:** Prolonged detention creates a stigma that impacts the undertrial's reintegration into society, regardless of the outcome of their case.

### HUSSAINARA KHATOON vs. STATE OF BIHAR CASE (1979)

- **Release of Undertrial Prisoners:** The Court directed the immediate release of undertrial prisoners citing their continued detention as illegal and a violation of Article 21 (Right to Life and Personal Liberty).
- **Directive to State Government:** The State Government was instructed to:
  - Provide free legal services to the poor and needy.
  - Submit a compliance report to the High Court of Patna within six weeks. Release undertrial prisoners as far as possible within the same six-week timeframe.
- **Speedy Trial Obligation:** The Court held that financial or administrative difficulties cannot justify the State's failure to provide a speedy trial. Emphasized the State's duty to ensure prompt justice to the accused.

**Note:** *It was the first Public Interest Litigation (PIL) in Supreme Court.*

## Reforms Related to India's Undertrial Prisoner System:

- **Supreme Court Directives:** The Supreme Court has directed jail authorities to identify and release undertrials who have served a significant portion of their maximum sentence under Section 479 of the BNSS.
- **Fast-Track Courts:** Proposed fast-track courts will focus on expediting trials for petty offenses and long-pending cases, reducing undertrials and alleviating prison overcrowding.
- **Legal Aid and Representation:** Organizations like NALSA are enhancing access to free legal services for undertrials, ensuring timely and fair trials.
- **Policy Reforms:** Broader reforms include revising bail laws, improving prison management, and enhancing coordination between judiciary and prison authorities to prevent prolonged detention.
- **Bail Law Reforms:** The Supreme Court, in *Satender Kumar Antil vs CBI case*, emphasized comprehensive bail law reforms and timely bail application disposal while addressing socio-economic barriers to securing bail.
- **Judicial and Administrative Efficiency:** Increasing the number of judges, improving court infrastructure, and implementing guidelines against arbitrary arrests can expedite trials and reduce pretrial detention.

# INDIA-SPAIN BILATERAL RELATIONS

Recently, President of the Government of Spain, Mr. Pedro Sanchez paid an official visit to India. This was President Sanchez's first visit to India and the first visit by a President of the Government of Spain to India after 18 years.

## Key Highlights of the India-Spain Joint Statement:

- **Geopolitical Cooperation:** Renewed momentum in bilateral relations, with a commitment to enhancing cooperation across political, economic, and cultural sectors.
  - Emphasis on shared values of democracy, freedom, rule of law, multilateralism, and sustainable development as the foundation of the partnership.
  - Agreement to strengthen collaboration in the Indo-Pacific, emphasizing a free, open, and rules-based international order.
- **Defense and Security:** Progress in the **C-295 aircraft project** as a key symbol of defense industrial cooperation under the "Make in India" initiative.
  - Encouragement for joint defense projects in India to expand industrial collaboration in other sectors of the Spanish defense industry.
  - Joint condemnation of terrorism and violent extremism, with calls for global action against terrorist groups and cross-border terrorism.
- **Economic and Trade Relations:** Support for stronger trade and investment ties, buoyed by economic resilience in both nations.
  - Establishment of a **"Fast Track Mechanism"** to facilitate mutual investments.
  - Collaboration in sectors like renewable energy, smart grids, transport infrastructure, food processing, healthcare, and automotive industries.
  - Conclusion of agreements on rail transport cooperation and customs mutual assistance.
- **Cultural and People-to-People Exchanges:** Declaration of 2026 as the Year of India-Spain in Culture, Tourism, and Artificial Intelligence (AI) to boost cultural and technological ties.
  - Signing of a Cultural Exchange Program to foster bilateral ties in music, literature, festivals, and museums.
  - Establishment of ICCR Chairs on Hindi and Indian Studies at Spanish universities to deepen academic exchanges.
- **Tourism and Connectivity:** Recognition of tourism's role in fostering economic and cultural ties, with plans to establish direct flights between India and Spain.
  - Exploration of reciprocal investments in the tourism sector, particularly in rural and urban hospitality.
- **Science, Technology, and Innovation:** Commitment to advancing cooperation in renewable energy, AI, and sustainable infrastructure.
  - Encouragement for innovation and startup ecosystems through frameworks like **"Startup India"** and Spain's **"Rising Up" initiative.**

- **Multilateral Cooperation:** Joint support for reforming multilateral organizations, including the UN Security Council, to reflect present-day realities.
  - Spain expressed support for India's candidature for the UNSC term 2028-29, and India backed Spain's bid for 2031-32.
- **Global and Regional Issues:** Calls for a just and lasting resolution to the conflict in Ukraine, emphasizing dialogue and respect for international law.
  - Advocacy for peace and stability in West Asia, with support for a two-state solution to the Israel-Palestine conflict.
  - Cooperation to address global climate change, including renewable energy transitions, sustainable development goals, and drought resilience.
- **India-EU Collaboration:** Commitment to strengthening the India-EU Strategic Partnership through negotiations on a Free Trade Agreement, Investment Protection Agreement, and Geographical Indications Agreement.
  - Recognition of the **India-Middle East-Europe Economic Corridor Project (IMEEC)** as a potential game-changer for connectivity.

| SPAIN |
|---|
| - **Location:** Situated in southwestern Europe, covers around 82% of the Iberian Peninsula.<br>- Its mainland shares borders with the Mediterranean Sea (excluding the small British territory of Gibraltar), France, Andorra, the Bay of Biscay, the Atlantic Ocean, and Portugal. |

## Significance

- **Geopolitical: Diplomatic relations** between India and Spain were established in **1956.** Since then, both countries have engaged in high-level visits and discussions to strengthen their political ties.
  - **Special Affinity of Spanish Royal Family:** The Spanish Royal Family has demonstrated a keen interest in India, as seen in King Juan Carlos I's visit in 2012 and the Crown Prince's visits focused on enhancing diplomatic and cultural ties.
  - **Multilateral Cooperation:** Both nations collaborate in international forums, including the United Nations, G20 and International Solar Alliance (ISA) addressing global challenges such as climate change, terrorism, and sustainable development.

- **Geo-Economic Relations:** Spain is India's 6th largest trade partner in Europe. Bilateral trade reached US$ 9.9 billion in 2023.
  - India's exports stood at US$ 7.17 billion while imports stood at US$ 2.74 billion during the same period.
  - Indian exports to Spain include organic chemicals, iron and steel products, and textiles, while imports include machinery, vehicles, and olive oil.
  - **India-Spain Joint Commission on Economic Cooperation (JCEC)** was set up under the 1972 Trade and Economic Cooperation Agreement and has since met twelve times.
  - **Investment:** Spain ranks as the 16th largest foreign investor in India, with cumulative FDI totaling US$3.94 billion as of December 2023.
- **Science and Technology:**
  - India and Spain jointly fund and execute innovation-driven R&D projects in biotechnology, fostering industry-academia partnerships.
  - Spain's expertise in water desalination and solar technologies aligns with India's focus on sustainable development, enabling joint solutions for global challenges.
  - Spanish advancements in water purification and desalination technologies offer India solutions for addressing water scarcity.
  - Indian universities collaborate with Spanish counterparts in areas such as heritage conservation, management, and biosciences.
- **Defense:** Spain has emerged as a prominent member in Defence diversification and modernization for India.
  - The procurement of 56 C295 aircraft from Airbus Spain represents the **first Make in India** project in the defense aircraft sector.
  - Spanish defense companies, such as INDRA and NAVANTIA, are engaging in partnerships with Indian defense projects.
- **Culture and Tourism:**
  - **Tourism** in both directions is growing, with 250,000 Indian tourists traveling to Spain every year, and 40,000 Spanish tourists visiting India.
  - **The Spain-India Council Foundation** (a private non-profit organization that functions in coordination with the Spanish Ministry of Foreign Affairs) organized the 3rd Spain-India Forum in 2023, in collaboration with Observer Research Foundation (ORF). This Forum serves as a crucial tool for promoting bilateral relations between Spain and India.
  - **Casa de la India Foundation:** As a cultural bridge, Casa de la India promotes Indian traditions in Spain, offering cultural performances, art exhibitions, and educational initiatives.
  - The Indian diaspora in Spain numbers around 75,000, concentrated in Catalonia, Valencia, Madrid and Canary Islands.
  - The Indian diaspora, including many Sindhi businesspersons, has significantly contributed to trade and commerce in regions like the Canary Islands.

## Challenges in India-Spain Relations:

- **Limited High-Level Engagements:** India and Spain have had few high-level diplomatic visits. The visit of Spanish Prime Minister Pedro Sánchez in 2024 was only the second in two decades, following the previous visit in 2006. Such gaps reduce opportunities to foster deeper bilateral ties.
- **Divergent Foreign Policy Stances:** Spain, as part of NATO and the EU, supports sanctions on Russia due to the Ukraine war, while India remains neutral, focusing on strategic autonomy and economic interests. Similarly, Spain criticizes Israeli actions strongly, while India balances support for Israel and humanitarian considerations for Palestinians, reflecting differing geopolitical priorities.
- **Underdeveloped Defense Collaboration:** The defense relationship has potential but is limited. While the C-295 aircraft manufacturing project in Vadodara is a step forward, areas like naval technology and joint ventures in aerospace remain underexplored.
- **Cultural and Educational Exchange Limitations:** Though tourism between the countries is increasing, academic exchanges and joint research initiatives remain limited. Better scholarship programs and cultural events can strengthen people-to-people ties.
- **Visa and Mobility Issues:** The cumbersome visa application processes and limited quotas for student and work visas restrict mobility between the two nations.
  - Professionals, researchers, and students face hurdles in accessing opportunities, reducing the potential for greater collaboration in innovation and skilled labor exchange.
- **Lack of Comprehensive Strategic Partnership:** Unlike Spain's relations with countries like the U.S. or Germany, its ties with India lack a formalized strategic framework.
  - Without a strategic partnership, areas like renewable energy, technology transfer, and joint climate action remain underleveraged.

## Way Ahead:

- **Strengthen Diplomatic Engagements:** Regular high-level visits and the establishment of structured dialogue mechanisms can ensure consistent diplomatic interactions and foster deeper ties across multiple sectors.
- **Align Foreign Policy Collaborations:** Enhanced dialogue on global issues, like energy security and multilateral trade, can bridge differences in foreign policy stances and improve coordination in international forums.
- **Diversify and Balance Trade:** Promoting trade in emerging sectors like technology, pharmaceuticals, and green energy, along with finalizing trade agreements such as the EU-India Free Trade Agreement, can address trade imbalances.

# INDIA-MEDITERRANEAN RELATIONS

In a significant address at the 10th edition of the MED Mediterranean Dialogue in Rome, External Affairs Minister S. Jaishankar emphasised the mutual benefits of strengthening ties between India and the Mediterranean region.

## Significance:

- **Historical Ties:** The ties between India and the Mediterranean date back to ancient times, involving key goods trade like spices and textiles.
  - Historical records highlight robust trade with the **Roman Empire and Greek civilization**s, using ports like the ancient city of **Muziris** on India's Malabar Coast.
- **Strategic Location:** The Mediterranean region, serving as a bridge between Asia, Africa, and Europe, enhances India's strategic interests across these continents.
  - The Mediterranean handles about 25% of global seaborne trade, making it a crucial hub for India's expanding trade and geopolitical strategies.
- **Defense Cooperation:** India conducts joint military exercises with Mediterranean countries enhancing security cooperation.
  - These exercises are part of a broader strategy to strengthen defense ties and ensure regional stability.
  - *For instance*, In Oct 2024, Indian-Italian Carrier Strike Groups took part in a naval drill off India's west coast.
- **Economic Growth:** Trade between India and Mediterranean countries is robust, valued at approximately $78 billion in 2023-24.
  - This includes significant projects and investments in sectors like energy, technology, and infrastructure development.
- **India-Middle East-Europe Economic Corridor (IMEC):** IMEC aims to boost connectivity between India, the Middle East, and Europe.
  - This corridor is expected to offer a more efficient route compared to the Suez Canal, reducing travel and transport times significantly, and involves key projects like railway and ship-rail transit networks.
- **Energy Partnerships:** The Mediterranean's potential for energy resources is crucial for India.
  - *For example*, the region's capabilities in green hydrogen and green ammonia are targeted for future energy cooperation, aligning with India's goals for sustainable energy solutions.
- **Diaspora and Cultural Ties:** The Mediterranean is home to a significant Indian diaspora, particularly in Italy where about 40% of the region's Indian population resides.
  - This diaspora is instrumental in strengthening cultural links and fostering economic and community ties between India and Mediterranean countries.
- **Cultural and Diaspora Links:** The Mediterranean region is home to a significant Indian diaspora, with about 460,000 Indians residing there, 40% of whom are in Italy.

- This diaspora plays a crucial role in strengthening cultural ties and fostering mutual understanding between India and Mediterranean nations.

| MEDITERRANEAN REGION |
|---|

- **Countries:**
  - **Southern Europe:** Spain, France, Monaco, Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Malta, and Cyprus.
  - **North Africa:** Egypt, Libya, Tunisia, Algeria, and Morocco.
  - **West Asia:** Turkey; Syria; Lebanon; Israel and Palestine.
- **Population:** The region hosts a diverse population exceeding 500 million people.
- **Geography:** Dominated by the Mediterranean Sea, it features a mix of landscapes with a typical hot, dry summer and mild, wet winter climate.
- **Important Rivers:** Major rivers such as the Nile (Egypt), Rhône (France), Po (Italy), and Ebro (Spain) drain into the Mediterranean, supporting agriculture and civilization development in their deltas.

## Key Concerns:

- **Geopolitical Instability:** Conflicts like those in Syria and Libya introduce uncertainty, complicating diplomatic and economic engagements in the region.
- **Turkey's Regional Politics:** Turkey's alignment with Pakistan and its stance on Kashmir present diplomatic challenges for India's strategic interests in the region.
- **Energy Security Risks:** Political turmoil in North African countries threatens the stability of energy supplies crucial for India.
- **Chinese Economic Influence:** China's significant investments in Mediterranean countries, especially Greece, create competitive challenges for India.
- **Environmental and Regulatory Challenges:** Aligning India's green energy projects with European environmental standards poses sustainability and regulatory challenges.
- **Cultural and Social Differences:** Deep-seated cultural and social differences can sometimes hinder deeper integration between India and Mediterranean countries.
  - These differences can affect migration, diaspora relations, and social integration policies, complicating people-to-people ties and long-term diplomatic relationships.

**Way Forward:**

- **Enhancing Trade Connections:** Focus on strengthening the maritime routes and port infrastructure that link the Indian Ocean with the Mediterranean.
  - This could include upgrading port facilities, improving logistical networks, and enhancing customs procedures to facilitate smoother trade flows.
- **Deepening Economic Engagement:** Encourage joint ventures and partnerships in identified sectors such as infrastructure, energy, and technology.
  - This includes promoting Indian investments in the Mediterranean's renewable energy projects and inviting Mediterranean investment into India's digital and infrastructural projects.
- **Security and Defense Collaboration:** Establish regular dialogues and exchanges between defense and security officials to enhance mutual understanding and cooperation.
  - This could also include joint military exercises, intelligence sharing, and collaborations in defense technology.
- **Promoting Blue Economy Initiatives:** Launch joint initiatives focused on marine resource management, sustainable fisheries, and coastal protection.
  - This could involve technology exchange, shared research programs, and cooperative policy-making in maritime affairs.
- **Leveraging Indian Initiatives:** Utilize platforms like "Make in India" and "Atmanirbhar Bharat" to attract Mediterranean businesses to invest in India's renewable energy, digital infrastructure, and food processing sectors.
  - Provide incentives for Mediterranean companies to participate in these sectors, potentially through tax benefits or eased regulatory processes.
- **Cultural and People-to-People Ties:** Strengthen cultural exchanges and people-to-people connections through tourism, education, and cultural programs.
  - This can enhance mutual understanding and foster a deeper appreciation of each other's heritage and contemporary society.
- **Policy Coordination and Dialogue:** Regular high-level dialogues and policy coordination meetings can help align the broader strategic interests of India and Mediterranean nations, ensuring that both sides can swiftly address any issues and seize new opportunities as they arise.



MEDITERRANEAN SEA

# TELECOMMUNICATIONS (TELECOM CYBER SECURITY) RULES, 2024

Recently, the Department of Telecommunications (DoT)
issued the Telecommunications (Telecom Cyber Security) Rules, 2024.

## Key Provisions:

- **Mandatory Publication:**
  - All orders for suspending telecommunication services, including internet shutdowns, must be publicly documented.
  - The orders must clearly specify the reasons for suspension, the geographical area affected, and the duration of the suspension.
  - The suspension period is capped at a maximum of 15 days to minimize disruption.
- **Competent Authority:** Suspension orders can only be issued by designated authorities:
  - **Union Home Secretary** for the central government.
  - **State Home Secretary** for state governments.
- **Review Mechanism:** A review committee is required to validate the suspension order's necessity and legality within five days of its issuance.
  - **Central Review Committee:** Chaired by the Cabinet Secretary.
  - **State Review Committee:** Chaired by the Chief Secretary.
- **Nodal Officers:** Licensed service providers are required to appoint nodal officers in each service area.
  - These officers are responsible for receiving and implementing suspension orders to ensure compliance.
- **Secure Communication:**
  - Suspension orders can only be communicated by officers ranked Superintendent of Police (SP) or higher.
  - The communication must be secure, either in writing or through encrypted electronic means, to maintain confidentiality.

### KEY TERMS

- **Telecom Cybersecurity:** Encompasses policies, tools, and practices designed to safeguard telecommunication networks and services from cyber threats and security risks.
- **Telecommunication Entity:** Refers to any individual or organization providing telecommunication services, or involved in the establishment, operation, maintenance, or expansion of telecommunication networks.
- **Security Incident:** An event posing actual or potential risks to the cybersecurity of telecom infrastructure or services, requiring immediate mitigation measures.

## Telecommunication Sector in India:

- **Global Position:** India is the second-largest telecom industry globally, with a user base of 1.19 billion subscribers.

- **Tele-density:** Overall tele-density is at 84.69%, with rural tele-density at 58.48% and urban tele-density at 131.86%.
- **Internet Penetration:**
  - Total internet subscribers (narrowband + broadband) have crossed 969 million, with 42% of subscribers located in rural areas.
  - Average monthly data consumption per wireless user has surged from **61.66 MB (March 2014) to 17.36 GB (March 2023).**
- **Growth Drivers:**
  - Affordable data tariffs, making mobile internet accessible to a larger population.
  - Extensive network availability across the country.
  - Expansion of Mobile Number Portability (MNP), enabling consumer flexibility.
  - Growing coverage of 3G and 4G networks in rural and urban regions.
  - Government policies supporting telecom infrastructure and domestic manufacturing.
  - A regulatory framework fostering competition and innovation.
- **Economic Contributions:**
  - **Foreign Direct Investment (FDI):** The telecom sector is the 4th largest recipient of FDI in India, contributing 6% of total FDI inflows.
  - **Employment:** Directly employs 2.2 million people and indirectly supports 1.8 million jobs, highlighting its significant role in employment generation.

## Challenges Faced by the Sector:

- **High Debt Burden: India's** major **telecom** operators held a combined **debt** of Rs 4.09 **lakh crore** in FY24, primarily due to spectrum auction payments, adjusted gross revenue (AGR) liabilities, and infrastructure investments.
- **Regulatory Uncertainty**
  - Frequent changes in telecom policies, including spectrum pricing and AGR norms, have caused unpredictability for businesses.
  - Spectrum auctions contribute significantly to the financial strain, with spectrum prices in India among the highest globally.
- **Spectrum Scarcity and Cost:** Limited availability of spectrum impedes service quality and innovation.
- **Digital Divide:**
  - Despite urban advances, rural areas remain underconnected.
  - As of 2023, only **37% of rural Indians** have internet access, compared to **69% in urban areas**. This gap hinders digital inclusivity.

- **Cybersecurity Threats:**
  - Rising data breaches and inadequate safeguards for personal data are significant issues.
  - India experienced **18 million cyberattacks in the telecom sector** in 2022, compromising consumer trust.
- **High Operational Costs:** Energy expenses for telecom towers account for **30% of operational costs**, with around 5,00,000 telecom towers nationwide relying on diesel generators in areas with unreliable electricity.
- **Outdated Infrastructure:**
  - Many operators still depend on 2G and 3G technologies, slowing the adoption of 5G.
  - As of 2023, **55% of mobile users** in India still operate on 2G or 3G networks, creating hurdles for 5G adoption.
- **Dependency on Imports:** Heavy reliance on imported telecom equipment affects self-reliance and exposes operators to global supply chain disruptions.

## Government of India's Initiatives:

- **Digital India Programme:** Launched in 2015, Digital India aims to transform India into a digitally empowered society and knowledge economy.
  - It includes initiatives to provide broadband connectivity to all villages, promote e-governance, and improve digital literacy.
- **BharatNet:** It is the world's largest rural broadband connectivity program and plays a crucial role in bridging the digital divide between urban and rural areas.
- **Infrastructure Development:** The government is investing in the development of telecom infrastructure, including optical fiber networks, mobile towers, and rural broadband connectivity, to support the growth of the sector and improve service quality.
- **Atmanirbhar Bharat (Self-reliant India) Initiative:** The government has emphasized promoting domestic manufacturing of telecom equipment and components to reduce dependence on imports and boost the growth of the domestic telecom industry.
- **Ease of Doing Business Reforms:** The government has implemented several reforms to improve the ease of doing business in India, including streamlining regulatory processes, reducing paperwork, and digitizing services, to attract investment and foster growth in the telecom sector.

**MARKET SIZE**

**Global Rank**

| | Global Rank | |
|---|---|---|
| 2 | 1 | 2 |
| Second Largest Telecom Network | Fastest Growing App Market | Second Highest Number of Internet Users |

The subscriber base of 1,203.69 million as of May 2024.

**SECTOR COMPOSITION**

**Composition of Telephone Subscribers (March 2024)**

Wireless 97.20% | Wireline 2.80%

Urban 54.40% | Rural 45.60%

**KEY TRENDS**

**Wireless Subscription (million)**

| Dec-18 | Dec-19 | Dec-20 | Dec-21 | Dec-22 | Dec-23 |
|---|---|---|---|---|---|
| 1,176.0 | 1,151.4 | 1,153.8 | 1,154.0 | 1,142.9 | 1,158.5 |

**Broadband Subscribers (million)**

| Dec-18 | Dec-19 | Dec-20 | Dec-21 | Dec-22 | Dec-23 |
|---|---|---|---|---|---|
| 518.6 | 661.9 | 747.4 | 792.1 | 832.2 | 904.5 |
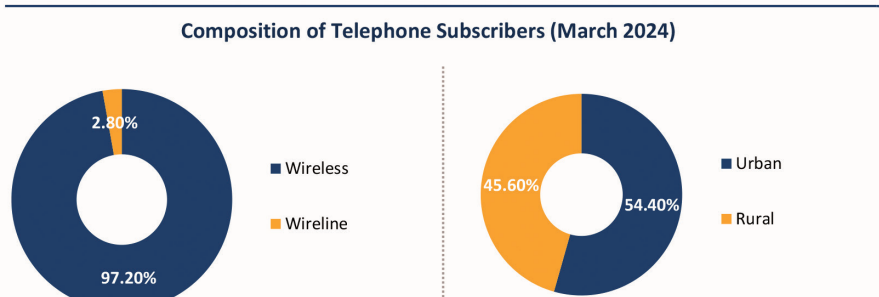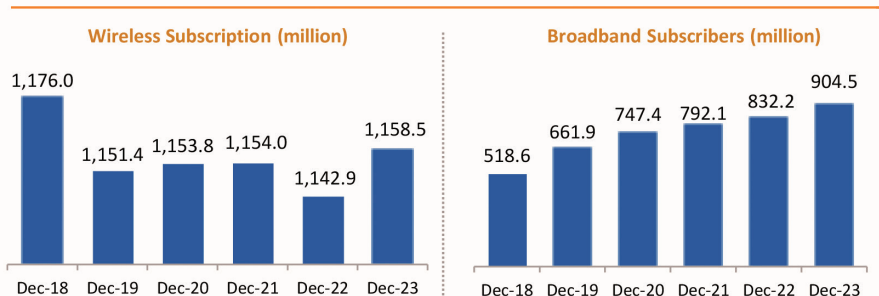
# ICA GLOBAL COOPERATIVE CONFERENCE, 2024

Recently, the Prime Minister inaugurated the first International Global Cooperative Conference in Delhi and launched the UN International Year of Cooperatives 2025.

## About:

- **Host:** The Global Conference is hosted by Indian Farmers Fertiliser Cooperative Limited (IFFCO), in collaboration with ICA and Government of India, and Indian Cooperatives AMUL and KRIBHCO.
- **First Time in India:** ICA Global Cooperative Conference and ICA General Assembly is being organised in India for the first time in the 130 year long history of ICA. ICA is the premier body for the Global Cooperative movement.
- **Theme:** Cooperatives Build Prosperity for All.
  - The theme aligns with the Indian Government's vision of "Sahkar Se Samriddhi" (Prosperity through Cooperation).
- A cooperative (or co-op) is an organization or business that is owned and operated by a group of individuals who share a common interest, goal, or need.
- The **UN SDGs recognize cooperatives as crucial drivers of sustainable development**, particularly in reducing inequality, promoting decent work, and alleviating poverty.
- **Postal Stamp:** A **commemorative postal stamp** featuring a **lotus** was unveiled.
  - The five petals of the lotus symbolize the five elements of nature (Panchatatva) — *earth, water, fire, air, and space* — underscoring cooperatives' commitment to environmental, social, and economic sustainability.

### INTERNATIONAL COOPERATIVE ALLIANCE (ICA)

- **Founded in 1895:** ICA is one of the oldest non-governmental organizations.
- **Global Representation:** It represents over 1 billion cooperative members worldwide.
- **Membership:** ICA has more than 306 organizations from 105 countries.
- **Headquarters:** ICA operates its central office in Brussels, Belgium.

## Benefits of Cooperatives:

- **Economic Empowerment:** Cooperatives provide a platform for individuals, especially marginalized groups, to pool their resources and gain access to goods, services, and markets they might not otherwise have.
  - This empowerment promotes financial independence and community wealth.
- **Democratic Control:** In a cooperative, every member has an equal say in the decision-making process, regardless of the amount of capital they have invested.

- This fosters democratic governance and ensures that all members have an opportunity to influence the direction of the cooperative.

### 97TH CONSTITUTIONAL AMENDMENT ACT 2011

- It established the right to form cooperative societies as a **fundamental right (Article 19).**
- It included a **new Directive Principle of State Policy** on the **Promotion of Cooperative Societies (Article 43-B).**
- It added a new **Part IX-B to the Constitution** titled **"The Co-operative Societies" (Articles 243-ZH to 243-ZT).**
- It authorizes the **Parliament to establish relevant laws** in the case of **multi-state cooperative societies (MSCS)** and state legislatures in the case of other cooperative societies.
- **Types of Cooperatives in India:**
  - **Agricultural Cooperatives:**
    - *Dairy Cooperatives:* Focus on the collective production, processing, and marketing of dairy products (e.g., Amul).
    - *Farmers' Cooperatives:* Provide services like access to seeds, fertilizers, and agricultural equipment, and help with marketing and processing crops.
    - *Fishermen Cooperatives:* Support fishermen in managing resources and marketing their catch collectively.
  - **Consumer Cooperatives:** These cooperatives are formed to provide goods and services to members at reasonable prices, reducing reliance on middlemen. *Examples* include consumer stores and fair-price shops.
  - **Worker Cooperatives:** In these cooperatives, workers own and manage the business, sharing profits and decision-making. *Examples* include small-scale manufacturing cooperatives or artisan co-ops.
  - **Credit Cooperatives:** Cooperative Banks and Credit Societies offer financial services, such as savings accounts, loans, and credit, to members, particularly in rural and underserved areas.
  - **Housing Cooperatives:** These cooperatives help members collectively build or manage housing projects, providing affordable living spaces, especially in urban areas.

- **Improved Access to Services:** Cooperatives often provide services or products that may be otherwise inaccessible, such as affordable healthcare, credit, and insurance.
  - This is particularly beneficial in rural or underserved areas.
- **Job Creation:** Cooperatives contribute to job creation, especially in areas where private sector investments are limited.

- They offer employment opportunities and can even help in skill development and entrepreneurship.
- **Social Responsibility:** Many cooperatives are centered around the well-being of the community and the environment.
  - They focus on sustainable practices, equitable resource distribution, and addressing social challenges, which aligns with the broader goals of social welfare and responsibility.
- **Resilience in Crisis:** Cooperatives are often more resilient during economic crises because they are member-driven and their primary goal is to serve the needs of the members rather than to maximize profits.
  - This structure often leads to more sustainable and stable operations.
- **Access to Credit and Capital:** Through cooperatives, members can access loans and credit at lower interest rates, as the cooperative structure allows them to share the risks and rewards.
  - This is particularly useful for individuals and small businesses that may struggle to access financing through traditional channels.

### SUCCESS STORIES OF COOPERATIVES IN INDIA

- **Amul (Gujarat):** Amul, a dairy cooperative, has been one of India's most successful cooperatives.
- It has been ranked as the world's stronges strongest food brand and the strongest dairy brand.
- **Irrigation Cooperatives in Maharashtra:** Water-user associations and cooperatives in Maharashtra have successfully managed water resources for irrigation purposes, helping farmers achieve better yields.
- **Kerala's Co-operative Movement:** Kerala has one of the most successful cooperative movements in India, with strong cooperatives in sectors like banking, farming, consumer goods, and housing. *Example:* Kudumbashree.

## Challenges faced by Cooperatives:

- **Lack of Awareness and Education:** Many people, especially in rural areas, are not fully aware of the cooperative model, its benefits, or how it works.
  - This lack of awareness hinders the growth of cooperatives and leads to poor participation by members.
- **Limited Access to Capital:** Cooperatives often struggle to access external financing because they are typically member-funded and lack the collateral or credit history required by banks.
- **Governance Issues:** Poor governance can be a significant challenge for cooperatives.
  - Since decisions are often made democratically, conflicts may arise among members or management, leading to inefficiencies and internal disputes.

- **Inefficiency and Operational Challenges:** In some cases, cooperatives face operational inefficiencies due to a lack of proper management or oversight.
  - Ineffective processes, poor decision-making, or lack of accountability hinders their ability to operate profitably and sustainably.
- **Competition from Larger Enterprises:** Cooperatives often face stiff competition from larger private companies with more resources, better access to markets, and economies of scale.
  - This makes it difficult for cooperatives to compete effectively, particularly in sectors like agriculture, manufacturing, and retail.
- **Limited Technical Expertise:** Many cooperatives, especially in rural areas, lack the technical skills required for innovation and modern business practices.
  - This includes knowledge about advanced technologies, marketing, and financial management, which are critical for growth and sustainability.
- **Legal Framework and Support for Cooperatives:** In India, cooperatives are governed by the **Cooperative Societies Act,** which is implemented at both the state and national levels.
  - **The Multi-State Cooperative Societies Act (2002):** This law regulates cooperatives that operate in more than one state.
  - **The National Cooperative Policy (2002):** Aimed at creating an enabling environment for the cooperative movement, it focuses on improving governance, member participation, and financial sustainability.
  - **The Ministry of Cooperation:** Established in 2021, this ministry focuses on supporting the growth of cooperatives in India, including reforming their governance and providing financial support.

## Way Forward:

- **Policy and Regulatory Reforms:**
  - **Simplify Governance:** Streamline regulations to reduce bureaucratic hurdles and foster ease of doing business.
  - **Unified Framework:** Create a national policy framework to harmonize state-level cooperative laws.
- **Capacity Building:**
  - **Training and Education:** Conduct regular training programs for members and leaders to enhance managerial and technical skills.
  - **Digital Literacy:** Promote digital tools for efficient operations, record-keeping, and financial transactions.
- **Financial Strengthening:**
  - **Credit Access:** Improve access to affordable credit through dedicated financial institutions and government support.
  - **Risk Mitigation:** Introduce insurance products tailored to cooperative needs, including crop and business insurance.

# STATE OF FOOD AND AGRICULTURE (SOFA), 2024: FAO

Recently, the Food and Agriculture Organisation (FAO) of the United Nations has released 'The State of Food and Agriculture 2024' (SOFA 2024).

## About:

- It is **an annual flagship report** published by the FAO of the United Nations that provides in-depth analysis and insights into key issues affecting global food and agriculture systems.
- **SOFA 2024** delves into the *true cost of food, emphasising the need for agrifood systems to be more inclusive, resilient, and sustainable.*
  - It **builds on the findings of the 2023 report,** exploring the use of true cost accounting to assess the economic, social, and environmental impacts of agrifood systems.
  - **SOFA 2023 introduced the concept of hidden costs and benefits in agrifood systems**, proposing true cost accounting as a method to reveal these hidden aspects.

## Key Findings:

- **Global Hidden Costs of Agrifood Systems:**
  - The global agrifood system incurs **hidden costs amounting to USD 12 trillion annually**.
    - These hidden costs represent expenses not directly accounted for in the market price of food and are associated with health, social, and environmental impacts.
  - A significant proportion, **70% (USD 8.1 trillion)**, is attributed to unhealthy dietary patterns and related Non-Communicable Diseases (NCDs).
    - This includes major health conditions such as heart disease, stroke, diabetes, and other diet-related illnesses, which place a heavy burden on healthcare systems and economies worldwide.
- **India's Position in Hidden Costs:**
  - India incurs **USD 1.3 trillion annually** in hidden agrifood system costs, ranking as the **third largest globally** after China (**USD 1.8 trillion**) and the United States (**USD 1.4 trillion**).
  - These costs are reflective of the considerable **health, social, and environmental challenges** tied to India's agrifood systems, which are influenced by dietary patterns, production practices, and economic inequalities.
- **Health-Related Hidden Costs:** Over **73% of India's hidden costs** arise from dietary risks. These include:
  - **Overconsumption of processed foods and additives:** This habit costs India **USD 128 billion annually**, contributing significantly to NCDs such as heart disease, stroke, and diabetes.
  - **Low consumption of plant-based foods and beneficial fatty acids:** This dietary deficiency adds a staggering **USD 846 billion** in hidden costs, primarily through increased healthcare expenditures and reduced productivity due to diet-related illnesses.

- **Economic and Social Implications:**
  - A significant share of India's agrifood system workers face **low wages** and **low productivity**, a situation worsened by structural inefficiencies in the distribution and value chains of the agrifood system.
  - This results in poverty and inequality, further entrenching social challenges.
- **Hidden Costs by Agrifood System Types:** Agrifood systems worldwide are categorised into six types, each with unique hidden cost profiles:
  - **Protracted Crisis Systems:** Characterised by instability, conflict, and food insecurity.
  - **Traditional Systems:** Reliant on subsistence farming and limited market integration.
  - **Expanding Systems:** Marked by growing agricultural production but with limited diversification.
  - **Diversifying Systems:** Transitioning towards a wider range of agricultural and dietary options.
  - **Formalising Systems:** Developing infrastructure and formal institutions within the food system.
  - **Industrial Systems:** Highly mechanised, large-scale production with advanced supply chains.
- **Dietary Risk Patterns Across Systems:**
  - **Low Whole Grain, Fruit, and Vegetable Intake:** This is a dominant risk across most systems, particularly in **protracted crises** and **traditional systems**, where limited access to diverse foods results in nutrient deficiencies.
  - **High Sodium Intake:**
    - Sodium consumption increases as systems evolve from traditional to formalising stages, peaking in formalising systems due to dietary shifts towards processed and packaged foods.
    - However, sodium intake tends to decline in industrial systems with better awareness and regulation.
  - **Processed and Red Meat Consumption:** Consumption of processed and red meats rises steadily as agrifood systems industrialise, contributing to health risks such as cardiovascular diseases and cancer.
- **Environmental Impacts:**
  - Unsustainable agricultural practices in diversifying agrifood systems generate significant environmental costs, including:
    - **Greenhouse gas emissions and nitrogen runoff**, collectively costing **USD 720 billion annually**. These costs highlight the environmental toll of intensifying agricultural production without adequate sustainability measures.

- Countries in **protracted crisis systems** bear disproportionate environmental costs, which can represent up to **20% of their Gross Domestic Product (GDP)**, further exacerbating their economic vulnerabilities.
- **Social Impacts:**
  - The **social costs** of agrifood systems are particularly high in traditional and protracted crisis systems, where poverty and undernourishment prevail.
  - These social challenges account for a significant portion of GDP in these regions, ranging from **8% to 18%**, reflecting the intertwined nature of economic hardship and inadequate food systems.

## AGRIFOOD SYSTEMS

- **Definition:** According to the **Food and Agriculture Organization (FAO)**, agrifood systems encompass all activities involved in the **production, processing, distribution, consumption, and waste management** of food and agricultural products.
- **Scope and Components:** These systems include a wide range of interrelated processes, such as:
  - **Agricultural production:** Growing crops, raising livestock, and aquaculture.
  - **Processing:** Converting raw agricultural materials into consumable goods.
  - **Distribution:** Transporting and delivering food products to consumers.
  - **Consumption:** The act of purchasing and consuming food.
  - **Waste management:** Handling by-products, leftovers, and packaging waste from food systems.
- **Influencing Factors:** Agrifood systems are shaped by a combination of **economic, social, and environmental factors** that determine how food is produced, distributed, and consumed. Key influencing elements include:
  - **Economic:** Market trends, trade policies, and financial incentives affecting agricultural activities and food availability.
  - **Social:** Consumer preferences, dietary habits, and cultural norms influencing demand and consumption patterns.
  - **Environmental:** Natural resource availability, climate change, and ecological sustainability impacting agricultural production and supply chains.

## Recommendations:

- **True Cost Accounting:**
  - Introduce **true cost accounting frameworks** to accurately measure and account for the **hidden costs** associated with agrifood systems.

- These frameworks enable policymakers and stakeholders to make **informed decisions** that reflect the economic, social, and environmental impacts of food production and consumption.
- **Promoting Healthier Diets:**
  - Develop and implement **policies** that make **nutritious and healthy foods** more **affordable and accessible** to all.
  - This initiative can significantly reduce **health-related hidden costs**, such as those arising from diet-related non-communicable diseases (NCDs) like diabetes and heart disease.
- **Incentivising Sustainability:**
  - Provide **financial and regulatory incentives** to encourage the adoption of **sustainable agricultural practices**, such as reduced emissions, efficient resource use, and environmentally friendly farming methods.
  - Such measures will help mitigate environmental costs and contribute to **climate resilience.**

## FOOD AND AGRICULTURE ORGANISATION (FAO)

- **Establishment:**
  - The **Food and Agriculture Organisation (FAO)** is a **specialized agency of the United Nations (UN)** that leads international efforts to combat hunger.
  - It was established in **October 1945**, making it the oldest permanent specialized agency of the UN.
- **Mandate:**
  - Improve nutrition,
  - Increase agricultural productivity,
  - Raise the standard of living in rural populations, and
  - Contribute to global economic growth.
- **Functions:**
  - Providing **technical assistance** on projects in individual countries,
  - Operating **educational programs** through seminars and training centers,
  - Maintaining **information and support services**, including statistics on world production, trade, and consumption of agricultural commodities,
  - Publishing **periodicals**, **yearbooks**, and **research bulletins.**
- **Headquarters:** Rome, Italy.
- **Members:** FAO has **194 Member States** plus the **European Union** (as a member organization).
- **Reports Published by FAO**
  - The State of the World's Forests (SOFO)
  - The State of World Fisheries and Aquaculture (SOFIA)
  - The State of Agricultural Commodity Markets (SOCO)
  - The State of Food Security and Nutrition in the World (SOFI).

# WORLD INTELLECTUAL PROPERTY REPORT, 2024

India has recently ranked among the top 10 nations globally for patents, trademarks, and industrial designs, as highlighted in the World Intellectual Property Organization (WIPO) 2024 report.

## Key Highlights:

- **India's Leadership:**
  - In 2023, India topped the list of the 20 fastest-growing origins for patent applications, achieving a **15.7% growth rate**. This marks **five consecutive years** of double-digit growth.
  - Globally, India secured the **sixth position** with **64,480 patent applications**, over **55.2% of which were filed by resident applicants**—a milestone for the country.
- **Patent Grants:** India witnessed a **149.4% increase in patent grants**, reflecting the rapid evolution and strengthening of its IP ecosystem.
- **Sectoral Contributions:**
  - A notable **36.4% rise in industrial design applications** signified advancements in **manufacturing, product design**, and **creative industries.**
  - **Key contributors included:**
    - Textiles and Accessories
    - Tools and Machines
    - Health and Cosmetics
- **Patent and Design Applications:**
  - Between 2018 and 2023, **patent and industrial design filings doubled**, while **trademark filings grew by 60%.**
  - India's **patent-to-GDP ratio** increased significantly, rising from **144 to 381** over the past decade, underscoring IP growth parallel to economic development.
- **Trademark Growth:**
  - India ranked **fourth globally** in trademark filings, with a **6.1% growth in 2023**. Nearly **90% of these applications** originated from **resident applicants.**
  - **Major sectors included:**
    - Health (21.9%)
    - Agriculture (15.3%)
    - Clothing (12.8%)
- **Global Recognition:** India's trademark office now holds the **second-largest portfolio** of active trademark registrations worldwide, with over **3.2 million trademarks in force.**
- **Worldwide Statistics:**
  - A total of **3.55 million patent applications** were filed globally, marking a **2.7% increase** from 2022.
  - Strong contributions came from **Asia**, led by **China**, followed by the **U.S.**, **Japan**, **South Korea**, and **India.**
  - The growth in **resident filings** across major economies reflected a growing emphasis on **local innovation.**

## ADDITIONAL INFORMATION

- Intellectual Property (IP) refers to the legal rights granted to creators and innovators to protect their creations, inventions, or works.
- It plays a vital role in fostering innovation, economic growth, and cultural heritage.
- **Types of Intellectual Property**
  - **Patents:**
    - Protect inventions and grant exclusive rights to make, use, or sell them for a specified period.
    - **Example:** The patent for the Zydus Cadila-developed **DNA-based COVID-19 vaccine (ZyCoV-D)**, showcasing India's pharmaceutical innovation.
  - **Trademarks:** Protect distinctive names, logos, symbols, or phrases that identify goods or services.
  - **Copyrights:** Protect original literary, artistic, and creative works.
  - **Industrial Designs:** Protect the aesthetic or ornamental aspects of a product.
- **Geographical Indications (GI):** Protect products that have a specific geographical origin and qualities unique to that region.
  - **Examples:**
    - *Darjeeling Tea* from West Bengal.
    - *Pashmina Shawls* from Jammu & Kashmir.
    - *Madhubani Paintings* from Bihar.
  - **Trade Secrets:** Protect confidential business practices or formulas.
    - **Example:** The exact **formulation of Ayurvedic products** is a closely guarded trade secret.
- **Global Conventions Related to Intellectual Property:**
  - **Paris Convention for the Protection of Industrial Property (1883):**
    - Established to ensure equal treatment for nationals of member countries regarding industrial property rights like patents, trademarks, and industrial designs.
    - Allows priority claims for patents and trademarks across member states within a specific time frame (6–12 months).
  - **Berne Convention for the Protection of Literary and Artistic Works (1886):**
    - Protects the rights of authors, composers, and artists in member countries, ensuring their works are not used without permission.

- **Madrid Protocol (1989):**
  - Simplifies the process of registering trademarks in multiple countries through a single application filed in one language.
  - Operated under the Madrid System, administered by WIPO, it streamlines the trademark registration process across 130+ member countries.
- **Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (1995):**
  - As a key agreement under the WTO, TRIPS establishes minimum standards for IP protection and enforcement in member states.
  - Covers all forms of IP (patents, copyrights, trademarks, etc.) and mandates a 20-year patent term for inventions.
- **WIPO Copyright Treaty (WCT) (1996):**
  - Extends copyright protection to digital content and addresses challenges posed by the internet and digital technologies.
  - Protects creators' rights in the digital space, including software, e-books, and streaming platforms.
- **Lisbon Agreement (1958):**
  - Provides protection for Geographical Indications (GIs) that denote the origin and quality of products tied to a specific location.

## India's Initiative:

### National IPR Policy 2016:

- It was introduced in 2016, and serves as a comprehensive vision document that consolidates all intellectual property rights (IPRs) under one framework.
- It establishes an institutional mechanism to oversee the implementation, monitoring, and review of IP laws.
- The policy focuses on fostering innovation, creativity, and entrepreneurship by ensuring stronger protection for inventors, artists, and creators through robust legal and institutional support.
- **Key Features of the Policy:**
  - **Encouraging Innovation and Creativity:**
    - The policy aims to create a conducive environment for individuals and businesses to innovate by safeguarding their creations through effective legal mechanisms.
    - By providing incentives, it motivates innovators, artists, and startups to invest in research and development.
  - **Institutional Mechanism for IPR Management:** The policy streamlines IPR administration through coordinated action plans, involving various ministries, departments, and stakeholders.

### Cell for IPR Promotion and Management (CIPAM):

- **Objective:** Established to implement the National IPR Policy effectively.

- **Functions:**
  - Spreading awareness about IPR across different sectors and regions.
  - Simplifying and expediting the process of filing IP applications.
  - Providing advisory and promotional services to inventors and entrepreneurs.

### National Intellectual Property Awareness Mission (NIPAM)

- **Purpose:** A flagship program aimed at creating awareness about IPR among students, researchers, and professionals in educational institutions across India.
- **Activities:**
  - Conducts workshops, seminars, and training sessions to educate participants about the importance of intellectual property and its role in fostering innovation.
  - Encourages young minds to protect their creations and contribute to India's innovation ecosystem.

### Atal Innovation Mission (AIM):

- Launched by **NITI Aayog in 2016**, AIM is a flagship initiative designed to promote a culture of innovation and entrepreneurship in India.
- **Key Programs under AIM:**
  - **Atal Tinkering Labs (ATLs):**
    - Set up in schools to inspire curiosity, creativity, and imagination among students.
    - Provide access to tools and technologies like 3D printers, robotics kits, and Internet of Things (IoT) devices, fostering a hands-on learning experience.
  - **Atal Incubation Centers (AICs):**
    - Support startups by providing them with access to funding, mentorship, and infrastructure to convert their ideas into viable businesses.
  - **Mentor India Program:** Connects experienced professionals with startups and innovators to provide guidance and strategic support.

### WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)

- It is a **self-funding agency of the United Nations,** that serves the world's innovators and creators, ensuring that their ideas travel safely to the market and improve lives everywhere.
- **History:** WIPO was established in **1967** by the **WIPO Convention.**
- **Members:** The organization has **193** member states including both developing and developed nations like India, Italy, Israel, Austria, Bhutan, Brazil, China, Cuba, Egypt, Pakistan, the U.S. and the U.K.
  - India joined WIPO in **1975.**
- **Headquarters:** Geneva, Switzerland.

# PARADOX OF STAGNANT RURAL WAGES IN INDIA

*Despite India's notable GDP growth in recent years, rural wages have remained largely stagnant, presenting a paradox that raises concerns about inclusive economic development.*

## Rural Wages in India:

- **Nominal Wage Growth (2019-2024):**
  - From **April 2019 to August 2024**, rural wages grew at an average annual **nominal rate of 5.2%** (wages without adjusting for inflation).
  - **Agricultural wages** experienced slightly higher growth at **5.8%**, indicating stronger demand or more favorable labor dynamics within agriculture.
- **Real Wage Growth (2019-2024):**
  - When adjusted for inflation, the **real wage growth** for rural workers overall was **negative at -0.4%**
  - **Agricultural wages** showed a **modest 0.2% increase** in real terms, suggesting that while wages increased in nominal terms, inflation eroded the actual purchasing power of rural workers.
- **Current Fiscal Year Trends (2023-24):** In the first five months of the **2023-24 fiscal year** (April-August), the nominal growth rate for agricultural wages was **5.7%.** The **real growth rate** for agricultural wages was **0.7%**, reflecting a slight improvement compared to previous years, though still below inflation levels.

### WAGE GROWTH IN RURAL INDIA FOR MEN
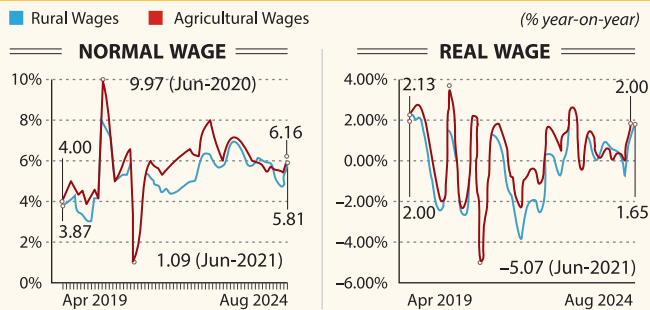


**Note:** *Nominal wages are simple arithmetic all-India average for rural male labourers across 25 agricultural and non-agricultural occupations. For real wages, the Consumer Price Index (Rural) has been used.*

*Source: Labour Bureau*

## Reasons for Stagnation in Rural Wages in India:

- **Higher Female Labour Force Participation Rate (LFPR):**
  - According to recent PLFS survey, **Female LFPR** has significantly increased from **26.4% in 2018-19 to 47.6% in 2023-24.**
  - More women entering the workforce, especially in rural areas, adds to the supply of labor, increasing competition for jobs and pushing wages down, often at the same or lower rates.
- **Low Agricultural Productivity:**
  - **Agricultural productivity** in rural areas remains low, especially in labor-intensive tasks.

- An increase in labor supply doesn't lead to a proportional rise in productivity, meaning more workers don't translate to higher earnings or better conditions.
- **Capital-Intensive Technology:**
  - Technological advancements, such as **threshing machines and harvesters**, are reducing the need for manual labor in both agricultural and non-agricultural sectors.
  - These technologies lead to higher profits for **capital owners** but **reduce job creation** and limit potential for wage growth.
- **Decline in Non-Agricultural Labour Demand:**
  - Sectors that traditionally absorb rural labor, such as **manufacturing and services**, have **not expanded** at the same rate as GDP growth.
  - Industries that are more **labor-intensive**, such as **FMCG** and **home appliances**, are experiencing slower sales, reinforcing the stagnation of rural wages.
- **Limited Non-Farm Opportunities:**
  - **Small-scale industries**, **cottage industries**, and **rural enterprises**, which could provide non-farm jobs, are either **underdeveloped** or lack the necessary **support and financing** to grow and absorb more labor.
- **Weaker Wage Guarantee Programs:**
  - Programs like **MGNREGA** (Mahatma Gandhi National Rural Employment Guarantee Act) face challenges such as **delayed payments**, **budget constraints**, and **corruption**, limiting their impact on improving rural wages.
- **Inflation:**
  - Rising **inflation** is eroding the value of real wages. While **nominal wages** may increase, they often fail to keep pace with rising prices of **essential commodities**, **fuel**, and other goods, which outstrip wage growth.
- **Climate Change:**
  - **Frequent climate events**, such as **droughts** and **floods**, reduce agricultural income and make it harder for landowners to pay higher wages.
  - This creates **wage instability** in the rural labor market, especially in farming-dependent regions.

## Implications of Stagnant Rural Wages in India:

- **Poor Domestic Demand:**
  - **Limited spending power** in rural areas—home to a large portion of India's population—reduces the demand for goods and services.
  - **Small and medium enterprises (SMEs)**, which rely on rural consumers, face challenges in maintaining viability due to reduced purchasing power, further impacting **economic growth.**

- *For instance,* Rural households account for **about 65-70%** of India's population, and limited spending power in this segment hampers the growth of India's domestic market.
- **Financial Vulnerability and Debt:**
  - **High inflation** combined with stagnant wages forces **rural households** into a cycle of debt.
  - Many rural families borrow from **informal lenders**, such as moneylenders, who charge **exorbitant interest rates**, trapping them in a **debt cycle.**
  - *For example,* according to the National Bank for Agriculture and Rural Development (NABARD), nearly **50%** of rural households are in debt, with informal debt sources accounting for **more than 50%** of rural credit.
- **Underemployment:**
  - **Decline in non-farm job opportunities** and stagnant wages force many workers back into **agriculture**, even though it may not provide sustainable income.
  - This leads to a high degree of **underemployment**—where individuals are working fewer hours than they are capable of or in less productive roles.
  - The **Periodic Labour Force Survey (PLFS)** estimates that **nearly 41%** of rural workers are **underemployed** or working in low-productivity sectors, with a large proportion of them being reabsorbed into agriculture.
- **Gender Wage Disparity:**
  - Stagnant wages disproportionately affect **rural women**, who often earn **less than men for the same work.**
  - The **gender wage gap** in rural areas is widening, further exacerbating the challenges faced by rural women.
  - The **PLFS 2022** highlights that **women earn about 30-40% less** than men for similar work in rural India, especially in agriculture and informal sectors.
- **Forced Migration:**
  - The lack of **sufficient job opportunities** and **low wages** push **rural workers to migrate** to cities in search of better-paying jobs.
  - This migration leads to **overcrowding in urban areas**, straining **urban infrastructure**, **housing**, and **public services**, worsening issues like **slums**, **poor sanitation**, and **traffic congestion.**
  - *For instance*, the **Census 2011** noted that **over 300 million people** in India migrated internally between 2001 and 2011, a significant portion of whom moved from rural to urban areas due to economic pressures.

## Measures to Enhance Rural Wage Growth:

- **Diversification of Rural Employment:**
  - **Promote Non-Agricultural Employment:**
    - Encourage **labour-intensive industries** like textiles, food processing, handicrafts, and tourism to generate diverse job opportunities.

  - Invest in **skill development programs** to train rural workers for non-farm jobs.
  - **Example:** Initiatives such as **Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY)** focus on skilling rural youth for formal employment.
  - Develop **rural industrial zones** with tax incentives to attract businesses.
- **Revitalize MGNREGA:**
  - Ensure the **timely disbursal of wages** to boost the effectiveness of the scheme.
  - Increase the **number of permissible workdays** and link them to infrastructure-building projects for rural development.
  - Expand the scope of MGNREGA to include **skilled work categories**, offering better wages and fostering skill enhancement.
  - **Impact:** MGNREGA can provide employment stability during economic slowdowns or seasonal job scarcity.
- **Inflation Control:**
  - Adopt **monetary and fiscal policies** to stabilize prices and reduce inflationary pressures.
  - Strengthen **Public Distribution Systems (PDS)** to ensure access to essential commodities at subsidized rates, shielding rural households from inflation.
  - Regularly monitor and adjust **minimum wages** to reflect changes in the cost of living.
- **Income Support Programs:**
  - Expand **direct cash transfer programs**, like **PM-KISAN**, to provide immediate financial relief to rural households.
    - *Example:* Maharashtra's **Ladki Bahin Yojana**, which offers Rs. 1,500/month to low-income families, helps offset wage stagnation.
  - Introduce **conditional cash transfer schemes** linked to education and healthcare to build human capital while supporting incomes.
- **Labour Market Reforms:**
  - Enforce **minimum wage laws** and periodically adjust wages based on inflation and productivity.
  - Provide **social security benefits** like insurance, pensions, and maternity leave to rural workers.
  - Simplify labour regulations to encourage formalization and attract investments in rural areas.
- **Strengthen Income Transfer Schemes:**
  - Enhance the coverage and payments under programs like **PM-KISAN** and **free-grain distribution schemes**, ensuring food security and income support for rural families.
  - *Example:* Expand state-specific income support initiatives to target vulnerable groups, especially women and low-income households.

# UNFCCC-COP29

The 29th Conference of the Parties to the UN Framework Convention on Climate Change (COP29) has recently concluded in Baku, Azerbaijan.

## Outcomes of COP29:

- **New Climate Finance Goal:**
  - **Tripling Climate Finance:** A major outcome at COP29 was the **New Collective Quantified Goal on Climate Finance (NCQG)**, aiming to triple climate finance for developing countries to **USD 300 billion per year by 2035**, up from the previous goal of USD 100 billion.
  - **Total Climate Financing:** The goal extends to scaling up climate finance to **USD 1.3 trillion per year** from all public and private sources by 2035, supporting developing nations in mitigating and adapting to climate impacts.
- **Carbon Markets Agreement:**
  - **Mechanisms for Carbon Markets:** COP29 reached a landmark agreement on carbon markets, finalizing mechanisms for both **Article 6.2** (country-to-country trading) and **Article 6.4** (a centralized UN-managed carbon offset system).
  - **Article 6.2:** Allows bilateral agreements between countries to trade carbon credits on mutually agreed terms.
  - **Article 6.4:** Establishes a centralized emissions offset and trading system managed by the United Nations, enabling global carbon market operations.
- **Declaration on Reducing Methane:**
  - **Global Methane Reduction:** Over 30 countries, including the **US, Germany, UK, and UAE**, endorsed a declaration focusing on reducing methane emissions from organic waste. However, **India is not a signatory**.
  - **Targeting the Waste Sector:**
    - The declaration addresses the 20% of global methane emissions from waste, with priorities including Nationally Determined Contributions (NDCs), regulations, data, finance, and partnerships.
    - Countries are encouraged to include methane reduction targets in their NDCs.
- **Indigenous Peoples and Local Communities:**
  - **Baku Workplan:** COP29 emphasized the role of Indigenous Peoples and local communities in climate action, adopting the **Baku Workplan**, which integrates indigenous knowledge with modern science, ensures indigenous participation in climate dialogues, and includes indigenous values in climate policies.
  - **Facilitative Working Group (FWG):** The FWG's mandate under the **Local Communities and Indigenous Peoples Platform (LCIPP)** was renewed to work on knowledge, engagement, and climate policy, with progress reviews scheduled for 2027.

- **Lima Work Programme on Gender (LWPG):**
  - COP29 extended the **LWPG** for another 10 years, highlighting the need for gender equality in climate action.
  - A new **gender action plan** will be adopted at **COP30** (Belém, Brazil) to advance gender-responsive climate policy and action.
- **Baku Harmoniya Climate Initiative for Farmers:**
  - In partnership with the **Food and Agriculture Organization (FAO)**, the COP29 Presidency launched the **Baku Harmoniya Climate Initiative**, a platform designed to bring together existing climate initiatives for agriculture.
  - It aims to simplify access to financial support and resources for farmers tackling climate challenges.

## INDIA'S STANCE AT COP29

- **Opposition to the Deal:**
  - India strongly **rejected the New Collective Quantified Goal (NCQG)**, criticizing it for its **inadequacy**.
  - The pledge to provide **USD 300 billion annually** for climate finance was deemed insufficient to address the severe **climate challenges** faced by developing nations.
  - India, along with other **Global South countries**, has been advocating for at least **USD 1.3 trillion annually** to meet the growing demands of climate change **mitigation** and **adaptation** in developing countries, with **USD 600 billion** of this amount required as grants or grant-equivalent resources.
- **Article 9 of the Paris Agreement:**
  - India emphasized that, in line with **Article 9 of the Paris Agreement**, developed countries should take the lead in **mobilizing climate finance**.
  - This article places the onus on developed nations to provide financial assistance to developing countries.
  - However, the final deal deviated from this principle, shifting the responsibility to **all actors**, including developing countries.
  - This shift was seen as undermining the core principle of **historical responsibility**, which holds developed nations accountable for both their past emissions and their financial commitments.
- **Solidarity with Vulnerable Nations:**
  - India stood in solidarity with the **Least Developed Countries (LDCs)** and **Small Island Developing States (SIDS)**, who walked out of the negotiations in protest.
  - These nations argued that their demands for a **fair and adequate financial target** were being ignored.

## Shortcomings of COP29:

- **Insufficient Financial Commitments:**
  - The pledge of **USD 300 billion annually** by **2035** from developed nations has been criticized as **"insufficient" and "far too delayed."**
  - Experts argue that developing countries require **USD 1.3 trillion** per year to address their climate challenges.
  - This modest increase in funding is seen as far from adequate to meet the urgent needs of these nations for climate change mitigation and adaptation.

- **Heavy Dependence on Loans Rather Than Grants:**
  - The financial package agreed upon at COP29 has drawn criticism for being heavily reliant on **loans** rather than **grants**.
  - This approach may further burden developing nations, which are already struggling with substantial debt and economic difficulties.
  - Instead of alleviating these challenges, loans could worsen their financial strain, thereby hindering their ability to implement effective climate actions.

- **Lack of Progress on Fossil Fuel Phase-Out:**
  - While the transition away from fossil fuels was hailed as a major breakthrough during **COP28** in Dubai, COP29 failed to build on this momentum.
  - The conference did not include clear commitments or strategies to **phase out fossil fuel dependency**, a crucial step in mitigating climate change.

- **Insufficient Emission Reduction Pledges:**
  - COP29 failed to generate adequate pledges from nations to meet the critical **1.5°C target** outlined in the **Paris Agreement**.
  - The **IPCC** reported that global emissions continued to rise in 2023, signaling that the actions proposed during COP29 are insufficient to achieve the necessary reductions in greenhouse gas emissions.

## Way Forward:

- **Strengthen Commitments for Emission Reductions:**
  - Countries need to set more ambitious Nationally Determined Contributions (NDCs) to ensure global temperatures remain well below 2°C, with efforts to limit warming to 1.5°C.
  - Mechanisms to ensure accountability, transparency, and progress in achieving emission targets should be further developed.

- **Mobilize Climate Finance:**
  - Developed nations must fulfill their commitment to mobilizing $100 billion annually for climate finance to support developing nations in their mitigation and adaptation efforts.

- Strengthen the Green Climate Fund (GCF) and other climate financing mechanisms to ensure adequate funding flows to developing countries, particularly vulnerable small island states and least developed nations.

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### UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC)

- **Signed:** The UNFCCC was adopted in 1992 at the United Nations Conference on Environment and Development (Earth Summit), also known as the Rio Summit or Rio Conference.
- **Entry into Force:** The Convention became legally binding on March 21, 1994.
- **Objective:** As per Article 2, the UNFCCC aims to achieve the stabilization of greenhouse gas (GHG) concentrations in the atmosphere at levels that prevent dangerous anthropogenic interference with the climate system.
- The Convention enjoys **near-universal membership** with **197 Parties**, underscoring its global commitment.
- It serves as the **parent treaty** to the **2015 Paris Agreement**, a pivotal international accord to combat climate change.

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- **Adaptation and Resilience Building:**
  - Greater emphasis should be placed on funding adaptation strategies, especially for countries vulnerable to climate change. Initiatives to build resilience in sectors like agriculture, water, and infrastructure are crucial.
  - Adaptation plans should integrate local knowledge and be inclusive of marginalized communities, ensuring equitable participation in resilience-building efforts.

- **Implementation of Climate Justice and Equity:**
  - It must ensure that the principle of "common but differentiated responsibilities" is honored, recognizing the historical responsibility of developed nations in contributing to global emissions.
  - Gender equality, human rights, and social justice should be embedded in climate policies, ensuring vulnerable communities are not left behind.

- **Carbon Market Mechanisms and Global Cooperation:**
  - Strengthen carbon trading systems and ensure that carbon credits are used effectively, with rigorous monitoring to avoid exploitation.
  - Mechanisms like Article 6 of the Paris Agreement should be finalized to create fair and transparent global carbon markets.
  - International collaboration, including knowledge exchange and joint implementation of mitigation measures, should be enhanced to tackle cross-border climate challenges.

# EXPANDING HIMALAYAN GLACIAL LAKES

Recently, a report by the Central Water Commission (CWC) highlighted the rapid expansion of Himalayan glacial lakes, which poses a growing risk to surrounding communities and ecosystems.

## Major Findings:

- **Regional Growth in Surface Area:**
  - The **Himalayan region** experienced a **10.8% increase** in the surface area of glacial lakes between 2011 and 2024.
  - This expansion reflects the broader impacts of climate change on glacier melting and hydrological changes in the region.
- **India's Significant Increase:**
  - Glacial lakes in India witnessed a **34% expansion** in surface area, far exceeding the regional average.
  - This dramatic rise underscores India's vulnerability to climate-related hazards, particularly in glacier-fed regions.
- **High-Risk Lakes:**
  - **67 lakes** in India experienced an increase of over **40% in surface area**, placing them in the **high-risk category** for potential **Glacial Lake Outburst Floods (GLOFs)**.
  - GLOFs can trigger catastrophic flooding, posing significant threats to downstream communities, infrastructure, and ecosystems.
- **Geographic Hotspots of Risk:**
  - States such as **Ladakh, Himachal Pradesh, Uttarakhand, Sikkim, and Arunachal Pradesh** recorded the most substantial expansions in glacial lakes.
  - These areas are now at heightened risk of climate-induced disasters, requiring urgent mitigation measures.
- **Advanced Satellite Monitoring:**
  - The assessment utilized **Sentinel-1 Synthetic Aperture Radar (SAR)** and **Sentinel-2 satellites**, which enabled precise and comprehensive monitoring of glacial lakes over time.
  - The total inventory area of Indian glacial lakes expanded from **1,962 hectares in 2011** to **2,623 hectares in 2024**, marking a **33.7% increase.**
- **Transboundary Observations:** Monitoring also highlighted risks associated with glacial lakes in **Bhutan, Nepal, and China**, emphasizing the transboundary nature of potential GLOF threats.

### GLACIAL LAKES

- **Glacial Lakes** are water bodies that form as a direct result of glacial activity, typically in regions characterized by high altitudes or areas previously covered by glaciers.
- These lakes emerge due to the melting of glaciers, which can leave behind depressions or basins that accumulate water.

- **Formation:**
  - **Glacial Erosion and Retreat:** Glaciers carve out depressions in the bedrock as they advance. When the glacier retreats, these depressions may fill with meltwater or rainwater, creating a glacial lake.
  - **Moraine Formation:** When glaciers melt, they deposit large amounts of sediment and rocks, known as moraines, which can act as natural dams, trapping water and forming moraine-dammed lakes.
  - **Meltwater Accumulation:** As glaciers melt due to rising temperatures, the meltwater collects in various forms, such as in front of the glacier, on its surface, or within its cavities, leading to different types of glacial lakes.
- **Types of Glacial Lakes:**
  - **Proglacial Lakes:** Found in front of glaciers, these lakes form as meltwater pools in the area left behind by the retreating glacier. They are often large and can be unstable.
  - **Supraglacial Lakes:** These are formed on the surface of glaciers when snow and ice melt during warmer periods. Supraglacial lakes are often temporary and can drain quickly.
  - **Moraine-Dammed Lakes:** Formed when moraines (accumulated debris left by glaciers) act as a dam, blocking meltwater flow. These are common in mountainous regions and often associated with hazards like Glacial Lake Outburst Floods (GLOFs).
  - **Cirque Lakes (Tarns):** Small lakes that form in bowl-shaped depressions or cirques carved by glaciers high up in mountain valleys.
  - **Subglacial Lakes:** Hidden under glaciers, these lakes are trapped between the ice and bedrock, isolated from the surface.

## Glacial Lake Outbursts:

- It refers to sudden and often catastrophic releases of water from glacial lakes, typically caused by the failure of natural dams made of ice, moraine (debris left by glaciers), or rock.
- These events are often referred to as **Glacial Lake Outburst Floods (GLOFs)** and pose significant hazards to downstream communities, infrastructure, and ecosystems.

## Reasons for the Glacial Lake Outbursts:

- **Moraine Weakening and Collapse:**
  - Glacial lakes often form behind moraine dams, which are natural barriers composed of unconsolidated rock, soil, and debris deposited by retreating glaciers.

- These moraine dams are inherently unstable and prone to erosion.
- If water levels in the lake increase due to melting or rainfall, the pressure may breach the dam.
- **Example:** South Lhonak Lake, Sikkim (2023)
  - This glacial lake overflowed due to excessive water accumulation and moraine dam collapse, leading to devastating floods downstream.
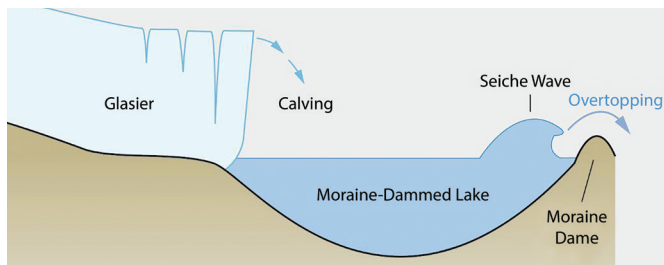


- **Landslides and Rockfalls into Glacial Lakes:**
  - Landslides or falling debris from surrounding steep mountain slopes can displace water in glacial lakes, causing waves strong enough to breach the dam.
  - **Example:** Kedarnath Disaster (2013):
    - The Chorabari Lake in Uttarakhand experienced a partial outburst during a heavy rainfall event.
    - A landslide into the lake likely contributed to the sudden overflow. The resulting floods led to widespread destruction and thousands of fatalities in the Kedarnath region.
- **Glacier Calving:**
  - When large chunks of ice break off a glacier (a process called calving) and plunge into a lake, they generate massive waves.
  - These waves can overtop or erode natural moraine dams, leading to a sudden outburst.
  - **Example:** Chorabari Glacier, Uttarakhand (2013):
    - The calving of the glacier and the subsequent increase in water volume in the Chorabari Lake contributed to the catastrophic flood in Kedarnath.
- **Ice Dam Failure:**
  - In some cases, glacial lakes are held back by ice rather than moraine.
  - Rising temperatures can weaken the ice dams, causing them to melt or collapse suddenly.
  - **Example:** Shyok River Region, Ladakh
    - Ice dam failures in this region have occasionally led to smaller-scale floods.
    - These events highlight the risk posed by climate-induced melting of glaciers.
- **Heavy Rainfall and Rapid Snowmelt:**
  - Intense monsoon rains or rapid melting of snow during heat waves can cause the water levels in glacial lakes to rise beyond the dam's holding capacity.

- This puts immense pressure on the dam and often results in overtopping or breaching.
- **Example:** Parechu Lake (2005):
  - Intense monsoon rains increased the water levels in the Parechu Lake, a glacial lake in Tibet close to the Himachal border.
  - The rising water eventually breached the dam, causing floods downstream in the Spiti Valley.
- **Combination of Factors (Climate Change and Glacial Retreat):**
  - Climate change accelerates the melting of glaciers, leading to the formation and expansion of glacial lakes.
  - This, combined with other factors like heavy rains, landslides, or earthquakes, increases the likelihood of GLOFs.
  - **Example:** Rathong Glacier, Sikkim:
    - Studies indicate that retreating glaciers in the Rathong area have led to the formation of unstable glacial lakes.
    - While no GLOF event has yet occurred, these lakes remain a significant hazard for the region.

## Mitigation Measures:

- **Regular Monitoring of Glacial Lakes:**
  - Conduct periodic surveys of potentially hazardous glacial lakes using satellite imaging, drones, and ground-based observations.
  - Monitor changes in lake size, moraine stability, and water levels.
  - Utilize remote sensing technology for real-time assessment.
- **Installation of Early Warning Systems (EWS):**
  - Set up automated EWS, including sensors to detect rising water levels, seismic activity, or dam instability.
  - These systems should send warnings to downstream communities through sirens, text messages, and public announcements.
- **Controlled Drainage of Lakes:**
  - Artificial drainage can reduce the volume of water stored in glacial lakes. This involves creating channels or siphons to lower the water levels gradually.
  - This method prevents sudden breaches of moraine dams.
- **Strengthening Moraine Dams:**
  - Reinforce moraine dams by using gabion walls (wire mesh filled with stones) to stabilize the structure.
  - Such fortifications prevent erosion and provide extra support to weak moraine barriers.
- **Construction of Artificial Barriers:** Build check dams downstream of glacial lakes to control flood intensity if a GLOF occurs. These barriers reduce the impact of outbursts on settlements and infrastructure.
- **Hazard Mapping:** Develop detailed hazard maps identifying the location of glacial lakes, their size, and potential flood paths. Incorporate these maps into local development plans to avoid construction in high-risk areas.

# AFSPA REIMPOSED IN MANIPUR

The Armed Forces (Special Powers) Act (AFSPA) has been reimposed in six police station jurisdictions in Manipur amid escalating ethnic violence between the Meitei and Kuki-Zo-Hmar communities.

## About:

- The **Armed Forces Special Powers Act (AFSPA)** empowers the armed forces to maintain public order in designated "disturbed areas."
  - Enacted in 1958, it grants authority to use force, arrest without a warrant, and provides legal immunity to personnel. Initially introduced to address violence in the Northeast, a similar Act was implemented for Jammu and Kashmir in 1990.
- **Disturbed Areas Under AFSPA:** A "disturbed area" is declared under Section 3 of AFSPA when the use of armed forces in aid of civil power is deemed necessary. Such declarations, valid for three months, can be made by the Central or State Governments or the Governor.
  - The 1972 amendment allows the Central Government to declare areas disturbed without state consent.
- **States/Areas of Imposition:** Mizoram, Nagaland, Manipur, Assam, Jammu and Kashmir, and parts of Arunachal Pradesh.

### HISTORICAL BACKGROUND

- AFSPA's roots trace back to the **British Armed Forces Special Powers Ordinance of 1942**, enacted to suppress the Quit India Movement.
- Post-Independence, similar ordinances were used in 1947 for internal security during Partition. The **Armed Forces (Assam and Manipur) Special Powers Act, 1958**, replaced the Assam Disturbed Areas Act of 1955, later evolving into AFSPA for broader application.

## Arguments in Favour:

- **Addressing Persistent Security Concerns:** AFSPA plays a crucial role in countering ongoing threats in regions affected by insurgency, ensuring public safety and stability in volatile areas.
- **Enabling Operational Authority for Armed Forces:** The Act empowers security forces with the necessary legal framework to conduct operations, arrest suspects, and maintain law and order effectively in disturbed areas.
- **Providing Legal Protections to Security Personnel:** AFSPA ensures legal immunity for actions performed by armed forces during their duties, safeguarding them from unwarranted legal consequences in hostile environments.
- **Boosting Confidence and Morale:** By providing security personnel with legal protections and authority, AFSPA enhances their confidence and motivation to operate effectively in challenging situations.

## Arguments Against:

- **Diminishing State Sovereignty:** Section 3 allows the Centre to declare disturbed areas without consulting states, undermining federal principles and state autonomy.
- **Risk of Misuse and Excessive Force:** The broad powers granted under AFSPA, such as using firearms, raise concerns about misuse, unnecessary fatalities, and violations of proportionality in force application.
- **Threat to Civil Liberties:** Provisions for warrantless arrests and searches infringe on constitutional rights, risking arbitrary detentions and undermining due process.
- **Lack of Accountability Mechanisms:** The requirement for prior approval to prosecute armed forces personnel creates an accountability gap, enabling potential impunity for human rights violations.

## Recommendations for Reforming AFSPA:

- **Jeevan Reddy Committee Recommendations:** Proposed repealing AFSPA and incorporating necessary provisions into the **Unlawful Activities (Prevention) Act (UAPA)** while establishing grievance cells for complaints.
- **2nd ARC:** It recommended repealing AFSPA to align with democratic governance principles and reduce risks of human rights violations.
- **Santosh Hegde Commission Insights:** Emphasized periodic six-month reviews and accountability for excesses committed by armed forces, even in disturbed areas.
- **Amendments to Existing Anti-Terror Laws:** Strengthening the UAPA to address terrorism-related challenges can provide an alternative legal framework with greater oversight and transparency.

### JUDICIAL OVERSIGHT ON AFSPA

The Supreme Court upheld the legality of AFSPA in *Naga People's Movement for Human Rights v. Union of India (1998),* ensuring its alignment with constitutional principles:

- **Consultative Approach Recommended:** While the Centre can independently declare disturbed areas, the Court advised prior consultation with state governments to respect cooperative federalism.
- **Time-Bound Implementation:** AFSPA declarations must have a specified duration and be reviewed every six months to ensure their continued necessity.
- **Adherence to Minimal Force Guidelines:** Security forces must exercise restraint and follow prescribed operational protocols, including the Army's **"Dos and Don'ts"**.

# AUSTRALIA TO BAN SOCIAL MEDIA FOR CHILDREN

Recent proposals by the Australian government to restrict social media access for individuals under 16 have sparked debates regarding the feasibility of enforcing age-based restrictions, the effects of social media on adolescent health.

## About:

- Social media refers to a range of online platforms and networks where people create, share, and exchange content, ideas, and information.
- Examples include Facebook, Instagram, Snapchat, Twitter, and LinkedIn.
  - These platforms are designed to connect people globally, but their impact on children can be both positive and negative, with the harmful effects often outweighing the benefits if not monitored properly.

## Benefits of Social Media:

- **Enhanced Communication and Connectivity**
  - Social media platforms enable people across India, even in remote areas, to stay connected with family and friends.
  - For instance, WhatsApp had over 487 million users in India as of 2023, serving as a primary tool for communication.
- **Economic Empowerment through Digital Commerce:**
  - Social media has become a key driver for small businesses and entrepreneurs.
  - Platforms like Instagram and Facebook allow artisans, especially in rural India, to market their products to a global audience.
  - *For example,* "Meesho," a social commerce platform, empowered over 13 million small businesses in India by leveraging social media networks.
- **Social and Political Awareness:**
  - Platforms like Twitter and Facebook play a significant role in raising awareness about social and political issues.
  - *For example*, campaigns such as **Swachh Bharat Abhiyan** used social media extensively to mobilize public support.
- **Disaster Management and Relief:**
  - Social media acts as an effective tool for spreading awareness and coordinating relief efforts during natural disasters.
  - *For instance*, during the Kerala floods in 2018, Twitter and Facebook were instrumental in rescue operations by connecting victims with authorities.
- **Health and Public Awareness Campaigns:**
  - During the COVID-19 pandemic, the Indian government leveraged social media to spread awareness about safety protocols, vaccinations, and lockdown measures.
  - Platforms like MyGovIndia provided accurate and timely information to millions of users.
- **Promotion of Cultural Heritage:**
  - Social media has helped promote Indian art, culture, and traditions globally.

- *For example,* hashtags like *#IncredibleIndia* showcases the country's tourism and cultural diversity, attracting millions of international visitors.
- **Access to Digital Governance:**
  - Social media enables direct communication between citizens and the government.
  - *For example*, the Ministry of Railways actively addresses passenger grievances through Twitter, enhancing transparency and responsiveness.

## Harmful Effects on Children:

- **Mental Health Issues:**
  - **Anxiety and Depression:** Constant exposure to idealized lives and achievements of others on social media can lead to feelings of inadequacy and low self-worth, contributing to anxiety and depression.
  - **Cyberbullying:** Social media platforms can be a breeding ground for bullying, with children often facing ridicule or harassment online.
    - Cyberbullying can have severe psychological consequences, including social withdrawal and suicidal thoughts.
- **Sleep Disturbance:**
  - **Poor Sleep Quality:** Spending long hours on social media, especially at night, disrupts natural sleep patterns, leading to insomnia and fatigue.
  - **Screen Addiction:** Continuous engagement with social media can develop into an addiction, causing children to prioritize screen time over essential activities like sleep.
- **Academic Impact:**
  - **Reduced Focus:** Frequent social media notifications and distractions impair concentration, making it difficult for children to focus on studies.
  - **Procrastination:** Children may spend hours scrolling through social media instead of completing their academic tasks, resulting in missed deadlines and lower grades.
- **Decline in Social Skills:**
  - **Reduced Face-to-Face Interaction:** Over-reliance on digital communication limits opportunities for real-world social interactions, weakening children's interpersonal skills.
  - **Impaired Communication:** Social media use often lacks the depth of direct conversations, hindering the development of empathy and active listening.
- **Body Image Concerns:**
  - **Unrealistic Standards:** Exposure to edited and filtered images creates unrealistic expectations of beauty, leading to body dissatisfaction among children.

- **Low Self-Esteem:** Comparisons with influencers and peers on social media can negatively impact children's confidence and self-worth.
- **Privacy Risks:**
  - **Exposure to Inappropriate Content:** Social media algorithms sometimes expose children to unsuitable content, including violence, explicit material, and misinformation.
  - **Data Privacy Concerns:** Many children unknowingly share personal information, which can be exploited for malicious purposes or lead to identity theft.
- **Materialism and Consumerism:**
  - **Influencer Culture:** Social media influencers often promote luxurious lifestyles and materialistic values, creating a desire among children to imitate such lifestyles.
  - **Self-Doubt and Comparison:** Seeing influencers achieve unrealistic goals can lead children to doubt their abilities and develop feelings of inadequacy.

## Social Media Regulation in India:

**1. Information Technology Act, 2000 (IT Act):**

- **Purpose:** Establishes a legal foundation for electronic governance and oversees all aspects of electronic communication, including social media.
- **Key Provisions:**
  - **Section 69A:** Empowers the government to block public access to information under specific conditions, such as:
    - Sovereignty and integrity of India.
    - Defense or security of the state.
    - Friendly relations with foreign states.
    - Public order.
    - Preventing incitement to cognizable offenses related to the above.
  - **Section 79(1):** Provides intermediaries (e.g., social media platforms) with exemption from liability for third-party content, subject to conditions:
    - Their role is limited to providing access to a communication system.
    - They do not initiate or modify the content.
  - **Exceptions:** Liability arises if platforms fail to act against unlawful content despite receiving government or court orders.
- **Controversial Sections**: **Section 66A**, dealing with restrictions on online content, was struck down by the Supreme Court in the **Shreya Singhal v/s Union of India** case, citing concerns about freedom of speech.

**2. Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021:**

- **Purpose:** Enhances accountability of intermediaries, focusing on content moderation, user safety, and grievance redressal.
- **Key Provisions:**
  - **Grievance Redressal Mechanism:** Platforms must implement a three-level system for handling user complaints, ensuring a timely response.
  - **Disclosure of Origin:** Platforms are required to identify the first originator of a harmful or controversial message, as per court or government orders.
  - **Chief Compliance Officer (CCO):** A resident Indian officer must ensure compliance with laws and respond to legal requirements.
  - **Voluntary Verification:** Platforms must offer users an option to verify their accounts to promote trust and authenticity.
  - **Content Moderation:** Platforms must remove inappropriate content, educate users about privacy policies, and avoid promoting copyrighted or harmful material.
- **Amendments in 2023:**
  - **Fact-Checking:** Platforms must prevent the spread of false information about the Indian government.
  - **Removal of Flagged Content:** Content identified as false by fact-checking units must be removed.
  - **Supreme Court Intervention:** Implementation of certain amended provisions was halted due to concerns about freedom of speech and regulatory overreach.

**3. Digital Personal Data Protection Act (DPDPA) 2023:**

- **Focus:** Governs the collection, processing, and protection of personal data, with specific emphasis on children's data.
- **Key Provisions:**
  - **Children's Data (Section 9):**
    - **Parental Consent:** Verifiable consent from parents/guardians is required for processing data of individuals under 18.
    - **Well-being Focus:** Data processing must prioritize the well-being of children.
    - **No Targeted Advertising:** Platforms are prohibited from behavioral advertising targeting children.

### GLOBAL PRACTICES

- **China:** Restricts daily internet use based on age, with limitations ranging from 40 minutes to two hours per day, and bans internet use for minors from 10 PM to 6 AM.
- **European Union:** Proposed a ban on internet access without parental consent for children under 16.
- **South Korea:** Enacted the Cinderella Law in 2011, which banned children under 16 from online gaming from midnight to 6 AM, aimed at reducing internet addiction. The law was abolished in 2021.
- **France:** Requires parental authorization for children under 15 to access social media.
  - Earnings of influencers under 16 are protected from parental access until the child reaches 16.
- **Norway** is set to enforce a stricter minimum age limit of 15 for social media use

# BIRTH ANNIVERSARY OF SARDAR VALLABHBHAI PATEL

Recently, the Prime Minister paid floral tribute to Sardar Vallabhbhai Patel on his 149th birth anniversary and took part in the Rashtriya Ekta Diwas celebrations at the Statue of Unity in Kevadia, Gujarat.

## About:

- **Birth:** Born in Nadiad, Gujarat, Vallabhbhai Patel was one of six children in a modest agriculturist family belonging to the Lewa Patidar community.
- **Legal Career:**
  - In 1910, Patel sailed to England, joining the Middle Temple and excelling in his studies.
  - Upon returning to India in 1913, he established a flourishing practice in Ahmedabad, earning widespread respect for his legal acumen and empathetic defense of the underprivileged.
- **Entry into Politics:**
  - **Influence of Mahatma Gandhi:**
    - Vallabhbhai Patel was deeply inspired by Gandhi's philosophy of non-violence and civil disobedience.
    - Their association began during the Kheda Satyagraha in 1918, marking the start of Patel's transition from a successful lawyer to a devoted freedom fighter.
  - **Municipal Leadership:** Patel's administrative acumen became evident when he served as Ahmedabad's Sanitation Commissioner in 1917 and later as Chairman of the Municipal Committee (1924-1928).
- **Major Contributions to the Freedom Struggle:**
  - **Kheda Satyagraha (1918):**
    - Led by Patel under Gandhi's guidance, this movement sought tax exemptions for farmers after crop failure.
    - His relentless campaigning united the peasants, ultimately compelling the colonial administration to grant relief.
    - Gandhi credited Patel as indispensable to the campaign's success.
  - **Non-Cooperation Movement:**
    - Patel abandoned his legal practice in 1920 to fully immerse himself in the nationalist cause.
    - He organized mass protests, picketing foreign goods and liquor shops, and inspiring thousands to join the fight against colonial rule.
  - **Bardoli Satyagraha (1928):**
    - Patel's leadership during this agrarian revolt against a steep land revenue hike showcased his exceptional organizational skills and resilience.
    - The struggle ended in victory for the peasants and earned Patel the title **"Sardar"** from the nation.
- **Role in Civil Disobedience and Quit India Movements:**
  - Arrested multiple times, Patel was among the first to be detained during the Salt Satyagraha (1930), even before Gandhi's Dandi march.
  - During the Quit India Movement (1942), Patel, along with other Congress leaders, was imprisoned in Ahmednagar Fort for three years.
- **Contribution to Post-Independence India:**
  - As Deputy Prime Minister and Home Minister, Patel faced the monumental task of integrating over 562 princely states into a unified Indian Union. Using diplomacy, persuasion, and tact, he succeeded in:
    - Consolidating these states into 26 administrative units.
    - Convincing rulers to accede to India, ensuring the country's territorial integrity.
  - His decisive handling of Hyderabad and Junagadh's accession further underscored his statesmanship.
- **Administrative Reforms:**
  - Restructured the Indian bureaucracy following the mass transfer of officials to Pakistan during Partition.
  - Recognized the need for a robust **"steel frame"** of civil, military, and administrative systems to govern independent India.
  - Advocated for an organized **command-based army** and a **systematic bureaucracy** as essential for national unity and governance.
  - **April 21** is celebrated annually as **Civil Services Day** to honor Patel's vision and encourage civil servants to recommit to public service.
- **Death and Immortal Legacy:**
  - Sardar Vallabhbhai Patel passed away on December 15, 1950, leaving behind an indelible legacy of leadership, pragmatism, and nation-building.
  - His title, *Iron Man of India*, reflects his unyielding resolve in uniting and strengthening a fractured nation.
  - **Bharat Ratna:** He was posthumously honored with the **Bharat Ratna**, the highest civilian award in the country in 1991.
  - **The Statue of Unity:** It is the tallest statue in the world which was unveiled on October 31, 2018 in Kevadia, Gujarat on the occasion of his 143rd birth anniversary.
- **Contribution to India's Constitutional Framework:**
  - **Fundamental Rights and Minority Rights:** As Chairman of the Advisory Committee, Patel was instrumental in drafting provisions on **citizenship, equality, freedom, religious and cultural rights**, and constitutional remedies.
  - Advocated for provisions ensuring **non-discrimination based on religion, race, caste, or sex**, along with unrestricted access to public facilities like roads, wells, and tanks.
  - He also served as the **first Deputy Prime Minister**, as well as the **first Home Minister** of independent India.

## SUPREME COURT'S GUIDELINES ON ILLEGAL DEMOLITIONS

*In one of its verdicts, The Supreme Court of India directed that demolitions, if at all, must be preceded by due process, and violation of the guidelines would amount to contempt.*

### Background:
- The ruling was driven by recent incidents in several states where demolitions were tied to allegations against family members involved in communal or criminal cases.
- The demolitions by the executives have often been justified on grounds of encroachment or unauthorised construction but have raised serious concerns about legality and human rights violations.
- The Court issued detailed pan-India guidelines to regulate instances of bulldozer demolition. It suggested a detailed procedure of notice being issued prior to the demolition.

### Key Guidelines Issued by the Supreme Court:
- **15-Day Notice:** A mandatory 15-day notice must be given before demolition to allow for legal challenge.
- **Due Process:** Demolitions must follow due process, with clear reasons provided by authorities.
- **Legal Backing:** Demolitions need proper authorization, including court orders wherever necessary.
- **Right to Shelter:** Demolitions should not proceed solely based on accusations; the right to shelter under Article 21 is emphasized.
- **Right to Challenge:** Property owners and tenants can challenge demolition orders during the notice period.
- **Accountability:** Officials conducting illegal demolitions may face disciplinary actions, contempt charges, and be liable for compensation.
- **Personal Hearing:** Affected parties are entitled to a personal hearing before finalizing demolition orders.
- **Videography Requirement:** Demolitions must be recorded for transparency.
- **Contempt & Restitution:** Violations of guidelines may lead to contempt proceedings and restitution costs for officials.
- **Exemptions:** Protections don't apply to unauthorized structures in public spaces or court-ordered demolitions.

### Concerns Regarding Illegal Demolition:
- **Violation of separation of power:** The Court noted that bulldozer demolitions carried out by state authorities subverted the authority of courts as it essentially **took up an adjudicatory role** to determine the guilt of an accused person and punish them. In that way, it **violated the separation of powers**.
- **Violation of Fundamental Rights:** Article 21 of the Constitution guarantees the right to life and personal liberty.
  - The **right to shelter** is considered a part of this right, and illegal demolition can deprive individuals of their homes and basic necessities.
  - "A house is not just a property but embodies the collective hopes of family or individuals for stability, security and a future," **—Justice Gavai**.
- **Violation of Procedural Fairness and Natural Justice:** This principle requires fair treatment and unbiased decision-making. Illegal demolitions can violate this principle by not providing affected individuals with a fair hearing.
- **Erosion of Rule of Law:** Illegal demolitions undermine the rule of law and can lead to a culture of impunity.
- **Governance Concerns:** Such actions can damage the government's credibility and erode public trust.
- **Displacement and Hardship:** Illegal demolitions can lead to displacement, loss of livelihood, and significant financial hardship for affected individuals and families.
- **Social Unrest:** Such actions can spark protests and social unrest, further destabilizing the situation.

### Conclusion:
- The Supreme Court's guidelines mark a significant step towards ensuring justice and fairness in the process of demolitions.
- By mandating a notice period, personal hearings, and videography, the court aims to protect the rights of individuals and prevent arbitrary actions by the authorities.

## ONE NATION ONE SUBSCRIPTION SCHEME

*The Union Cabinet has approved the Central Sector Scheme, One Nation One Subscription (ONOS).*

### About:
- **Aim:** To consolidate the subscription to academic journals and research publications under a centralized system.
  - It enables access to all journal articles in India through a single centrally negotiated payment model.
  - The scheme will replace individual institutional subscriptions with a national-level subscription, ensuring uniform access to research content.

- **Funding and Duration:** The central government has allocated ₹6,000 crore for the period of 3 years from **2025 to 2027.**
- **Eligibility:** The benefits are extended to:
  - **All higher education institutions** under central and state governments.
  - **Research and Development (R&D) institutions** managed by the central government.
- **Coordinating Agency:** The Information and Library Network (INFLIBNET), an autonomous center under the University Grants Commission (UGC), will coordinate the scheme at the national level.

## AYUSHMAN BHARAT FOR 70-PLUS CITIZENS

> *Prime Minister Narendra Modi has launched health cards under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) to provide health coverage to people aged 70 years and above, regardless of their income and economic status.*

### About:
- Under the expanded scheme, senior citizens will get a separate **Ayushman Vaya Vandana Card.**
- The beneficiaries covered under **Private health insurance policies or Employees' State Insurance Corporation (ESIC) scheme** are also eligible to avail benefits under PMJAY.
  - Those already availing benefits of Central Government Health Scheme (CGHS) and Ex-Servicemen Contributory Health Scheme (ECHS) may have to either choose their existing scheme or opt for PMJAY.

### Significance:
- Extending universal health coverage to individuals over 70 is particularly significant as India's population continues to age. During the 2011 census, only 8.6% of the population was aged 60 or above.
  - However, this figure is projected to rise to 19.5% by 2050, according to the government's **Longitudinal Ageing Study in India (LASI).**
- In absolute numbers, the population of Indians aged 60 and above is expected to grow from 103 million in 2011 to 319 million by 2050, a threefold increase.

### AYUSHMAN BHARAT SCHEME
- It was launched in **2018,** by the Government of India with the aim of achieving universal health coverage. It has two key components;
  - Ayushman Bharat Pradhan Mantri- Jan Arogya Yojana (AB PM-JAY)
  - Ayushman Arogya Mandir

*Ayushman Bharat Pradhan Mantri- Jan Arogya Yojana (AB PM-JAY):*
- **AB PM-JAY** is the largest publicly funded health assurance scheme in the world which provides health cover of **Rs. 5 lakhs per family per year** for **secondary** and **tertiary care** hospitalization.
- **Coverage:** It covers up to **3 days** of pre-hospitalization and **15 days** of post - hospitalization expenses such as **diagnostics and medicines.**
  - The beneficiary can visit any empanelled public or private hospital in India to avail cashless treatment.
  - There is **no restriction** on the **family size, age or gender.**
- **Eligibility:** The inclusion of households is based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas, respectively.
  - This number also includes families that were covered in the **Rashtriya Swasthya Bima Yojana (RSBY)** but were not present in the **SECC 2011** database.
- **Funding:** The funding for the scheme is shared by the Centre and the state in a **60: 40 ratio.**
  - However, for North-Eastern states, Himalayan states (such as Uttarakhand, Himachal Pradesh), and Union Territories, the **ratio is 90: 10.**

## LEVELS OF CARE

**Primary Care**
- Prevention, diagnostic, therapeutic svcs., health education, minor surgery
- Primary care is an "approach to providing health care"

**Secondary Care**
- Short-term
- Sporadic consultation with specialist for advanced interventions not available in PC

**Tertiary Care**
- For conditions that are relatively uncommon
- Institution-based, highly-specialized (e.g. open-heart surgery)

## PM-VIDYA LAXMI SCHEME

> *The Union Cabinet approved PM Vidyalaxmi, which seeks to provide financial support to meritorious students in their pursuit of higher education.*

### About:
- It is a **Central Sector Scheme** and facilitates the extension of education loans to students who get admission in the **top 860 Quality Higher Educational Institutions of the nation.**
- **Benefits:**
  - For loan amounts up to ₹ 7.5 lakhs, the student will also be eligible for a credit guarantee of 75% of outstanding default. This will give support to banks in making education loans available to students under the scheme.

- In addition to the above, for students having an annual family income of up to ₹ 8 lakhs, and not eligible for benefits under any other government scholarship or interest subvention schemes, 3 percent interest subvention for loan up to ₹ 10 lakhs will also be provided during moratorium period.
- The interest subvention support will be given to one lakh students every year.
- Preference will be given to students who are from government institutions and have opted for technical/professional courses. An outlay of ₹3,600 Crore has been made during 2024-25 to 2030-31, and 7 lakh fresh students are expected to get the benefit of this interest subvention during the period.
- **The scheme will be applicable** to the QHEIs of the nation, as determined by the National Institutional Ranking Framework (NIRF) rankings, including all HEIs - government and private.
- It will supplement **Pradhan Mantri Uchchatar Shiksha Protsahan (PM-USP) Scheme.**

## Significance of PM-Vidya Laxmi Scheme:

- **Enhanced Access to Quality Education:** By facilitating education loans for students admitted to top 860 **Quality Higher Educational Institutions (QHEIs)**, the scheme ensures that financial constraints do not hinder meritorious students from accessing premier educational opportunities.
- **Support for Economically Weaker Sections:** The scheme aims to reduce the financial burden on economically weaker households and promote higher education among underprivileged groups.
- **Boost to Educational Institutions and Skill Development:** By aligning the scheme with QHEIs determined by National Institutional Ranking Framework (NIRF) rankings, it encourages students to pursue education in high-quality institutions, thereby fostering skill development and contributing to a more skilled workforce.

### PRADHAN MANTRI UCHCHATAR SHIKSHA PROTSAHAN (PM-USP) SCHEME

- **Objective:** To provide financial assistance to meritorious students to support their day-to-day expenses during higher studies.
- **Implementing agency**: Department of Higher Education
- **Incorporated:** Since 2008.
- **Intended Benefits:** Up to 82,000 fresh scholarships are awarded annually for graduate/postgraduate degrees and professional courses such as Medical and Engineering.
- **Eligibility for National Scholarship:**
  - **Academic Merit:** Scholarships are awarded based on Class XII Board Examination results by the Ministry of Education, Government of India.

- Students must rank above the 80th percentile among successful candidates in their stream in Class XII or equivalent examinations.
- **Course Type:** Applicants must pursue regular degree courses, not correspondence, distance, or diploma courses.
- **Recognized Institutions:** The courses must be undertaken at colleges/institutions recognized by the All India Council for Technical Education (AICTE) or the respective regulatory bodies.
- **Non-Availability of Other Scholarships:** Students should not be beneficiaries of any other scholarships, including state-run schemes, fee waivers, or reimbursement programs.
- **Income Criteria:** Students with a gross parental/family income of up to ₹ 4.5 lakh per annum are eligible. Fresh applicants must provide an income certificate.

## TULIP

*The Union Minister for Social Justice and Empowerment launched the Traditional Artisans' Upliftment Livelihood Programme (TULIP).*

### About:

- It provides artisans from Scheduled Castes (SC), Other Backward Classes (OBC), sanitation workers, and persons with disabilities with an e-platform to market their products, opening up opportunities to reach customers globally.

### Significance:

- **Preservation of Traditional Art Forms:** TULIP supports the preservation of traditional craftsmanship, which is often threatened by modernization, by promoting these unique products to a broader audience.
- **Skill Development and Growth Opportunities:** The program encourages skill enhancement, providing artisans with resources and support to adapt their craft for e-marketing, thus fostering long-term growth.
- **Improved Social Recognition:** By providing a national platform, TULIP enhances the social standing of marginalized artisans, acknowledging their contributions to India's cultural heritage and strengthening their role in the economy.

## EV AS A SERVICE PROGRAMME

*The Union Minister of Power launched the 'EV as a Service' programme of Convergence Energy Services Limited (CESL).*

## About:

- It aims to address the rising demand for EVs within the government sector, with an ambitious goal of deploying **5,000 E-Cars** over the next two years.
- **Flexible procurement model:** The programme allows for the deployment of a variety of **E-Car makes/models**, enabling Govt. offices to choose E-Cars that best align with their operational requirements.
- **CESL:** It is a venture under the EESL Group (a central public sector enterprise under the Ministry of Power, New and Renewable Energy), focused on bridging gaps in the energy ecosystem.
  - It integrates sectors like electricity, transport, and home appliances while promoting scalable models through government collaborations and innovative financing mechanisms, including carbon markets.

## PM E-DRIVE SCHEME

- It stands for PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE).
- **The PM E-DRIVE intends to replace** Faster Adoption and Manufacturing of Electric Vehicles in India Phase II **(FAME India Phase II).**
- The Ministry of Heavy Industries (MHI) will implement the new scheme with a total outlay of **Rs 10,900 crore** over a period of two years.
- The scheme will focus on **promoting electric buses, trucks, and ambulances. Electric cars** for private or shared mobility will **not be covered** under this new scheme.
- The government has introduced **e-vouchers for EV buyers** to avail of demand incentives under the scheme.
  - These vouchers will be generated at the time of purchase and **authenticated via Aadhaar,** ensuring transparency in the subsidy process.

## GRIEVANCE REDRESSAL ASSESSMENT INDEX

*The Union Minister of State for Science & Technology recently launched the Grievance Redressal Assessment and Index (GRAI) 2023.*

## About GRAI:

- **Developed by:** The **Department of Administrative Reforms and Public Grievances (DARPG)**, based on recommendations from the Parliamentary Standing Committee of the Ministry of Personnel, Public Grievances, and Pensions.
- **Objective:** The index aims to provide a comparative assessment of organizations, highlighting strengths and areas for improvement in their grievance redressal mechanisms.

- **First Edition:** The inaugural **GRAI 2022** was released on **21 June 2023.**

## Key Features:

- **Assessment Scope**:**Eighty-nine Central Ministries and Departments** were ranked using a comprehensive index across four dimensions: Efficiency, Feedback, Domain and Organisational Commitment.
- **Data Source:** The rankings were based on data from January to December 2023, collected via the **Centralised Public Grievance Redressal and Management System (CPGRAMS)**
- **Top Performers:**
  - **Group A:** Department of Agriculture and Farmers Welfare
  - **Group B:** Office of the Comptroller & Auditor General of India.
  - **Group C:** Department of Investment & Public Asset Management.

## E-DAAKHIL

*The Department of Consumer Affair has completed the nationwide rollout of E-Daakhil.*

## About:

- E-Daakhil is an online platform designed to streamline the consumer grievance redressal process.
- It provides an efficient way for consumers to approach the relevant consumer forum to file their grievances.
- The e-Daakhil portal was first launched in 2020 by the National Consumer Disputes Redressal Commission.

## NATIONAL CONSUMER DISPUTES REDRESSAL COMMISSION

- **Established:** In 1988 under the Consumer Protection Act of 1986, functions as a quasi-judicial body.
- **Mandate:** To provide cost-effective, speedy, and straightforward resolution of consumer disputes.
- **Leadership:** Headed by a sitting or retired Supreme Court Judge or a sitting or retired Chief Justice of a High Court.
- **Jurisdiction:** Handles complaints valued above ₹2 crore.
  - Exercises appellate and revisional jurisdiction over orders from State Commissions or District Fora.
  - Covers disputes involving both goods and services.
- **Who Can File a Complaint:**
  - A consumer.
  - A voluntary consumer association registered under the Companies Act, 1956.
  - The Central or State Government.
  - Multiple consumers in cases involving numerous affected individuals.
- **Appeals:** Aggrieved parties can appeal NCDRC orders to the Supreme Court within 30 days.

## DARK TOURISM

*Ukraine is experiencing an influx of Western visitors engaging in "dark tourism" amid the ongoing war.*

### About:

- **Meaning:** It refers to visiting locations associated with death, tragedy, suffering, or unusual historical events. These sites include cemeteries, battlefields, memorials, disaster zones, and crime scenes.
- **Prominent Dark Tourism Sites:**
    - **Auschwitz Concentration Camp (Poland):** A reminder of the Holocaust.
    - **Chernobyl (Ukraine):** Site of a catastrophic nuclear disaster.
    - **Ground Zero (New York):** Memorial for the victims of the 9/11 attacks.
    - **Hiroshima Peace Memorial Park (Japan):** Commemorates victims of the atomic bombing in 1945.
    - **Jallianwala Bagh (Amritsar, Punjab):** The site of the tragic 1919 massacre, where innocent lives were lost, Jallianwala Bagh serves as a powerful tribute to resilience and sacrifice.

### Reasons for Popularity:

- **Emotional Connection:** Visitors seek to engage deeply with the history and emotions of those affected by past tragedies.
- **Curiosity and Uniqueness:** Dark tourism offers unique, non-traditional experiences distinct from typical tourist attractions.
- **Reflection on Mortality:** It prompts introspection about life, death, and historical significance, offering a "reality check."
- **Role of Social Media:** Posts, photos, and videos shared by users increase the visibility of dark tourism sites. Social media influencers visit these sites for content creation, sometimes focusing on aesthetics and personal branding rather than respectful engagement. The visual appeal of dark sites on social media encourages others to visit.

## UGC INTRODUCES FLEXIBLE DEGREE COMPLETION OPTIONS

*The University Grants Commission (UGC) has unveiled new guidelines allowing undergraduate students to accelerate or extend their program duration, offering greater flexibility in degree completion.*

### About:

- Under the new guidelines, Higher Education Institutions (HEIs) can provide two options for undergraduate students: Accelerated Degree Programmes (ADPs) and Extended Degree Programmes (EDPs).

- Students must opt for either program by the end of their first or second semester. The UGC has approved these flexible degree options.
- **Accelerated Degree Programmes (ADPs):**
    - Designed for academically outstanding students to graduate early by earning additional credits per semester.
    - A three-year program can be completed in five semesters, and a four-year program in six or seven semesters.
- **Extended Degree Programmes (EDPs):**
    - Tailored for students facing personal, financial, or academic challenges, allowing an extension of up to two semesters.
    - Students can take fewer credits per semester to manage their pace.

### Role of Higher Education Institutions (HEIs):

- HEIs will establish committees to assess student eligibility for ADPs and EDPs based on performance and credit-completion capacity.
- These committees will recommend adjustments in course loads and credit requirements per semester.
- Up to 10% of the total intake may be reserved for ADP students, while there is no limit for EDP students.

### Benefits:

- Degrees obtained through ADPs or EDPs will be treated as equivalent to standard-duration degrees for employment, academic, and recruitment purposes.
- Government agencies, private organizations, and recruitment bodies like UPSC and State Service Commissions will recognize these degrees equally.

### UNIVERSITY GRANTS COMMISSION (UGC)

- It came into existence on 28th December, 1953 and became a **statutory Organization** of the Government of India under **UGC Act, 1956.**
- **The UGC's mandate includes:**
    - Promoting and coordinating university education.
    - Determining and maintaining standards of teaching, examination, and research in universities.
    - Disbursing grants to the Universities and Colleges.
    - Serving as a vital link between the Union and State Governments and institutions of higher learning.
    - Advising the Central and State Governments on the measures necessary to improve university education.

## CHALO INDIA CAMPAIGN

*The Ministry of Tourism has launched the Chalo India campaign on the sidelines of the ongoing World Travel Mart in London.*

## About:

- Chalo India is a first-of-its-kind initiative to bring more foreign tourists to India, wherein the government will allow "friends" of diaspora members to get free visas.
- Five foreign nationals nominated by each **Overseas Citizen of India (OCI)** cardholder on a special portal will be eligible for a gratis e-visa (visa granted without fees).

### OVERSEAS CITIZEN OF INDIA

- **Introduced:** in 2005 by the Union Government.
- **Benefits:** A registered OCI is **granted multiple entry, multipurpose life-long visa** for visiting India.
  - **They are exempted** from registration with Foreign Regional Registration Officer (FRRO) or Foreign Registration Officer (FRO) for any length of stay in India.
  - OCI cardholders can open special bank accounts in India, they can buy non-farm property and exercise ownership rights and can also apply for a driver's license and PAN card.
  - However, they are **required to seek permission** or a permit to visit protected areas in India.

### *Eligibility Criteria:*

- All Persons of Indian Origin (PIOs) who were citizens of India on **26th January, 1950,** or thereafter, or were eligible to become citizens of India on the said date are eligible for registration as an OCI.

- **A foreign national who;**
  - Belonged to a territory that became part of India after **15th August 1947**; or
  - A child or a grandchild or a great-grandchild of such a citizen; or
  - A minor child of such persons mentioned above; or
  - A minor child whose both parents are citizens of India or one of the parents is a citizen of India is eligible for registration as OCI cardholder.

### *Who cannot be an OCI?*

- An applicant is not eligible to get an OCI card if his/her parents or grandparents have ever been a citizen of Pakistan or Bangladesh.
- Foreign military personnel either in service or retired are also not entitled for grant of OCI.

### *What are OCIs not allowed to do?*

- The OCI card holder is not entitled to vote; to be a member of a Legislative Assembly or of a Legislative Council or of Parliament;
  - To hold Indian constitutional posts such as that of the President, Vice President, Judge of the Supreme Court or High Court.
- He or she cannot normally hold employment in the government.

| COMPARISON BETWEEN NRI, PIO AND OCI | | | |
|---|---|---|---|
| **Aspect** | **Non-Resident Indian (NRI)** | **Person of Indian Origin (PIO)** | **Overseas Citizen of India (OCI) Cardholder** |
| **Definition** | Indian citizen residing outside India and holding an Indian Passport. | Person whose ancestors were Indian nationals but now holds foreign citizenship. | Person registered as an OCI Cardholder under the Citizenship Act, 1955. |
| **Citizenship Status** | Indian citizen. | Foreign nationals. | Foreign national with OCI status. |
| **Voting Rights** | Eligible to vote in Indian elections. | Not eligible to vote. | Not eligible to vote. |
| **Visa Requirements** | No Visa required. | Visa required. | Multiple lifelong visas for any purpose (permission required for research work). |
| **Registration with Local Authorities** | Not required. | Required if the stay exceeds 180 days. | Not required. |
| **Benefits in India** | All benefits available to Indian citizens, subject to notifications by the government. | No specific benefits. | Parity with NRIs in economic, financial, and educational fields (except acquisition of agricultural properties). |
| **Indian Citizenship Eligibility** | Already an Indian citizen. | Must reside in India for 7 years before applying for registration under Citizenship Act, 1955. | Eligible for citizenship after 5 years of OCI registration and residing in India for 12 months prior to application. |

## PM VISIT TO NIGERIA

> *Recently, PM Narendra Modi paid a State visit to Abuja, Nigeria.*

### About:

- This visit is the **first** by an Indian prime minister to Nigeria in **17 years.**
- PM Modi was also conferred with **Nigeria's second highest national honour**, the **'Grand Commander of the Order of the Niger'.**
  - He is the second foreign dignitary to receive the distinction.
  - Queen Elizabeth is the only foreign dignitary who has been awarded with GCON in 1969.
- The two leaders also agreed to work together to meet the **development aspirations of the Global South.**
- Additionally, India announced it would send **20 tons of humanitarian aid to support Nigeria's flood relief efforts.**
- As members of International Solar Alliance (ISA), both sides agreed to intensify their cooperation in establishing solar parks and to work towards increasing the share of renewable energy in their energy portfolio.
- During the visit the MoUs were signed on **Culture Exchange Programme, Cooperation in Customs Matters and Survey Cooperation.**

### NIGERIA

- **Location and Geography:** Located on the western coast of Africa, Nigeria is often referred to as the "Giant of Africa".
  - **Borders:**
    - *North:* Niger
    - *East:* Chad and Cameroon
    - *South:* Gulf of Guinea (Atlantic Ocean)
    - *West:* Benin
  - **Area:** Covers approximately 9.24 lakh square kilometers.
  - **Climate:** Ranges from arid in the north to humid equatorial in the south.
  - **Capital:** Abuja
  - **Currency:** Naira
- **Natural Features**
  - **Major basins:** Niger-Benue, Lake Chad, and Gulf of Guinea.
  - **Principal rivers:** Niger River (the country's namesake) and its largest tributary, the Benue River.
  - **Mountain Range:** Cameroonian Highlands
- **Natural Resources:** Rich in petroleum and natural gas, among other natural resources.

### Significance of India-Nigeria Ties:

- **Strategic Partnership:** India and Nigeria share a "Strategic Partnership," reflecting their shared democratic values, multi-religious, and multi-ethnic societies.
  - This partnership has been nurtured over six decades of close political and cultural ties, supported by frequent high-level engagements.
- **Economic Cooperation:**
  - **Major Investment Destination:** Over 200 Indian companies have invested around $27 billion in Nigeria, particularly in manufacturing.
    - This makes Indian companies the second-largest employers after Nigeria's Federal Government.
  - **Energy Security:** Nigeria is one of India's major suppliers of crude oil, a critical component of India's energy security.
  - **Development Assistance:** India has extended concessional loans worth $100 million to Nigeria and facilitated capacity-building programs, strengthening the economic relationship.
- **Educational and Cultural Exchange:** Indian teachers and doctors contributed significantly to Nigeria's development in its early post-independence years. Additionally, the 60,000-strong Indian diaspora in Nigeria forms a vibrant link between the two nations.
- **Defense and Security Cooperation:** India has supported Nigeria in building its defense capabilities, including establishing the National Defence Academy in Kaduna and the Naval War College in Port Harcourt.
- **Nigeria's Role in Africa:** Nigeria, as the "Giant of Africa," plays a pivotal role in the African Union and other international organizations like OPEC and the Commonwealth.
  - Its fast-growing economy and abundant natural resources make it a key player in Africa and an attractive partner for India's strategic engagement in the continent.
- **Countering China in Africa:** With China's substantial investments in Africa, India's deeper engagement with Nigeria aligns with its goal to strengthen its presence in Africa.
  - By fostering ties with Nigeria, India aims to secure access to resources critical for its industries, such as Electric Vehicles, and expand its economic and cultural footprint in Africa.
- **Shared Vision for Global South:** Both countries have common interests in advocating for the Global South's priorities on international platforms, promoting a multipolar world order, and addressing developmental challenges together.

## GLOBAL SOUTH

- It refers to countries largely situated in **Africa, Asia, and Latin America**, often described as developing or underdeveloped.
- These nations face greater levels of **poverty**, **income inequality**, and more difficult living conditions compared to the wealthier **Global North.**

# INDIA-ITALY JOINT STRATEGIC ACTION PLAN 2025-29

*Prime Minister Narendra Modi and his Italian counterpart unveiled the Joint Strategic Action Plan 2025-29 as they met on the sidelines of the G20 Summit.*

## Key Highlights of the Plan

- It is a **five-year strategic action plan** outlining their vision for collaboration in a **range of key sectors.**
- **Political Dialogue:** India and Italy will maintain regular meetings and reciprocal visits at the highest levels, including Heads of Government and Ministers of Foreign Affairs, Trade, and Defence.
- **Economic Cooperation and Investments:** India and Italy will focus on increasing bilateral trade and investments in high-potential sectors such as food processing, green technologies, transportation, and advanced manufacturing.
- **Connectivity:** The two nations will collaborate on sustainable transport and maritime infrastructure, especially under the India-Middle East-Europe Economic Corridor (IMEEC). They will work to finalize agreements in the maritime and port sectors to enhance connectivity.
- **Science, Technology, and Innovation:** India and Italy will expand their cooperation in critical technologies such as artificial intelligence, Industry 4.0, and clean energy. They will also increase educational and research opportunities in STEM fields and launch the Indo-Italian Innovation and Incubation Exchange Programme to foster innovation and collaboration.
- **Space Sector:** India and Italy will strengthen cooperation between the Indian Space Research Organisation (ISRO) and the Italian Space Agency (ASI) in areas such as space exploration and Earth observation.
- **Energy Transition:** The two countries will collaborate on green hydrogen, biofuels, renewable energy, and energy efficiency. They will work together to strengthen the Global Biofuels Alliance and the International Solar Alliance.
- **Defence Cooperation:** India and Italy will conduct regular Defence Consultative Meetings and Joint Staff Talks to enhance defence cooperation. They will focus on co-production and co-development of defence platforms and strengthen maritime collaboration, including search and rescue operations.

## Significance of India-Italy Relationship:

- **Diplomatic Relations and Strategic Partnership:** India and Italy, two ancient civilizations with rich cultural legacies, established diplomatic ties in 1947. The relationship reached a new milestone in 2023 when both nations elevated their partnership to a **Strategic Partnership**, marking a deeper alignment of interests and mutual priorities.
  - A **Strategic Partnership** refers to a formal and comprehensive agreement between two or more countries to collaborate on long-term objectives of mutual interest.
  - These partnerships often go beyond traditional diplomatic ties, focusing on key areas such as defense, trade, technology, energy, and global governance.
- **Italy's Indo-Pacific Focus:** Italy is emerging as a key European player in the Indo-Pacific region, following in the footsteps of France, Germany, and the Netherlands. Its growing ties with India reflect its strategic pivot towards the Indo-Pacific.
  - Notably, the India-Italy-Japan trilateral, launched in 2021, aims to promote security, stability, and prosperity in the region.
  - This trilateral, the second involving India and a European nation after the **India-France-Australia trilateral**, underscores Italy's increasing commitment to multilateralism in the Indo-Pacific.
- **Active Role in Global Forums:** Italy has strengthened its global engagements by joining key initiatives spearheaded by India. In 2021, Italy became a member of the International Solar Alliance (ISA), aligning with India's renewable energy goals during Italy's G20 Presidency and COP26 co-Presidency.
  - At the 2023 G20 Summit, Italy joined both the **Global Biofuel Alliance** and the ambitious **India-Middle East-Europe Economic Corridor (IMEEC)**, demonstrating its commitment to sustainability and connectivity.
- **Economic Ties:** Italy stands as India's 4th largest trading partner in the European Union, Italy ranks 17th in FDI inflows into India, with key sectors like automobiles, trading, industrial machinery, services, and electrical equipment attracting investments.
- **Culture, Academic, and People-to-People Exchanges:** The two countries will enhance collaboration in higher education, technical training, and vocational education. They will promote cultural initiatives, heritage preservation, and filmmaking while also fostering tourism and stronger connections between their communities.

## MIGRATION AND MOBILITY PARTNERSHIP AGREEMENT, 2023

- It was signed between India & Italy to facilitate safe & legal migration.
- It will help both the nations to establish safe migration channels and implement a pilot project to train Indian health professionals for employment in Italy. It also might lead to increased mobility of students, researchers, and academics between the two nations.

- **A New Approach towards China:** Italy's policy toward China is undergoing a significant shift. Growing apprehensions about China's influence in Europe and the Indo-Pacific have prompted Italy to reshape its geopolitical strategy.
- This was most evident when Italy withdrew from China's Belt and Road Initiative (BRI), signaling a decisive pivot in its foreign policy.

## Conclusion:

- As India and Italy continue to deepen their collaboration, the partnership is driven by shared values, economic synergy, and strategic alignment. Whether in energy transition, the Indo-Pacific, or global multilateral platforms, this relationship is poised to play a pivotal role in shaping regional and global dynamics.

## RUSSIA'S NEW NUCLEAR DOCTRINE

*Russian President Vladimir Putin signed a revised nuclear doctrine, setting out new conditions under which the country would consider using its arsenal.*

## About:

- **Meaning of Nuclear Doctrine:** It defines how nuclear weapons are developed, deployed, and their intended use in defense, including in response to specific threats
- The revised nuclear policy comes on the **1,000th day** of Russia's Special Military Action against Ukraine and follows the US President Joe Biden's decision to let Ukraine strike targets inside Russia with US-supplied **longer-range missiles.**
- The New Doctrine appears to significantly broaden the triggers for possible nuclear weapons use compared with the previous version of the document, which stated that Russia could tap its atomic arsenal in case of an attack with ballistic missiles.

## Key Features:

- **Expanded Nuclear Attack Definition:** Aggression by a non-nuclear state, supported by a nuclear state, is treated as a joint attack, justifying nuclear retaliation.
- **Lowered Response Threshold:** Protection extends to Russia's sovereignty and territorial integrity, not just its existence.
- **Belarus Under Russia's Nuclear Umbrella:** Belarus is formally included in Russia's nuclear defense.
- **New Risks for Nuclear Response:** Military coalitions, large-scale exercises, or enemy infrastructure near Russia's borders may trigger a nuclear response.
- **Nuclear Response to Aerial Attacks:** The updated doctrine specifies conditions for nuclear use, including massive air attacks involving missiles, aircraft, drones, or other flying vehicles, signaling Russia's readiness to use its nuclear arsenal to deter the West.

- **Increased Scope for Nuclear Use:** The doctrine now states that an attack by a nonnuclear power, supported by a nuclear power, will be considered a joint attack.
  - It also allows for nuclear retaliation in response to a conventional attack threatening Russia's sovereignty and territorial integrity.

### KEY PROVISIONS OF INDIA'S NUCLEAR DOCTRINE

- Building and maintaining a credible minimum deterrent;
- A posture of "No First Use" nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere;
- Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage.
- Nuclear retaliatory attacks can only be authorised by the civilian political leadership through the Nuclear Command Authority.
- Non-use of nuclear weapons against non-nuclear weapon states. However, in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons;
- A continuance of strict controls on export of nuclear and missile related materials and technologies, participation in the Fissile Material Cutoff Treaty negotiations, and continued observance of the moratorium on nuclear tests.
- Continued commitment to the goal of a nuclear weapon free world, through global, verifiable and non-discriminatory nuclear disarmament.
- The Nuclear Command Authority comprises a **Political Council and an Executive Council.**
  - The Political Council is chaired by the Prime Minister. It is the sole body which can authorize the use of nuclear weapons.
  - The Executive Council is chaired by the National Security Advisor. It provides inputs for decision making by the Nuclear Command Authority and executes the directives given to it by the Political Council.

## INDIA-CARICOM SUMMIT

*The PM Modi recently chaired the 2nd India-CARICOM Summit in Georgetown, Guyana, alongside the Prime Minister of Grenada, the current Chair of CARICOM. The first India-CARICOM Summit was held in 2019 in New York.*

## About:

- PM Modi held talks with the Caribbean partner countries, focusing on areas such as **trade, technology, and tourism, among others.**

- Prime Minister Narendra Modi **proposed seven key pillars** to strengthen ties between India and 'CARICOM' (Caribbean Community).

## 7 Key Pillars:

*The seven pillars listed by PM Modi also form the acronym C-A-R-I-C-O-M:*

- **Capacity Building:** Announced 1,000 information technology scholarships and proposed expanding the technology centre India is establishing in Belize to CARICOM members.
- **Agriculture and Food Security:** India can share its advancements in agricultural technology, such as deploying drones, and promote millet cultivation to enhance nutrition.
- **Renewable Energy and Climate Change:** Invited CARICOM nations to join initiatives such as International Solar Alliance, Coalition for Disaster Resilient Infrastructure, Mission Life for Sustainable Lifestyles, and the Global Biofuel Alliance.
- **Innovation and Technology:** India's technological advancements, such as the "Stack" infrastructure and the Universal Payment Interface (UPI) for digital payments, can be extended to CARICOM countries.
- **Cricket and Culture:** Proposed using cricket as a tool for women's empowerment by offering 11 scholarships to each CARICOM nation for women's cricket coaching.
- **Ocean Economy:** India can assist in developing untapped marine resources, enhancing regional connectivity, and supporting security initiatives.
- **Medicine and Healthcare:** Offers affordable solutions through its Janaushadi scheme.

## CARICOM:

- **Establishment:** In 1973 under the Treaty of Chaguaramas.
- **Importance:** It represents the oldest ongoing integration movement among developing nations.
- **Vision:** The organization was created to foster regional unity and economic and social development among its members in the Caribbean.
- **Core Objectives:**
  - **Economic Integration:** Strengthen economic ties between member countries through trade and common policies. Thus it also ensures equitable distribution of the economic and social benefits of integration to all member states.
  - **Unified Foreign Policy:** Develop and coordinate collective foreign policy to amplify the international voice of the Caribbean region.
  - **Human and social development:** To improve standards of living and work and provide the full employment of labor and other factors of production.
- **Members:**
  - The Caribbean Community (CARICOM) is a grouping of **twenty-one** countries: fifteen Member States and six Associate Members.

- Stretching from the Bahamas in the north to Suriname and Guyana in South America, CARICOM comprises states that are considered developing countries, and except for Belize, in Central America and Guyana and Suriname in South America, all Members and Associate Members are island states.
- **Governance and Institutions:**
  - **Rotating Chairmanship:** Leadership of the Community rotates every six months among the heads of government, fostering a sense of shared responsibility and inclusivity.
  - **Secretariat:** Based in Georgetown, Guyana, this body coordinates the day-to-day operations of CARICOM, implementing policies and projects across the member states.
  - **Secretary-General:** Acts as the Community's chief administrative officer, leading the Secretariat and representing CARICOM at international events.
- **Judicial Functions:**
  - **Caribbean Court of Justice (CCJ):** Serves dual roles as the principal judicial organ of the Community, resolving disputes related to CARICOM laws and agreements, and acting as the highest court of appeal on civil and criminal matters from member states.



- **Regional Integration:** The Caribbean economic development spans from a political union which led to the establishment of the West Indies Federation (1958), to a more structured engagements of the Caribbean Free Trade Association (CARIFTA) (1965), and a more sustained measure of regional integration through a Caribbean Community (1973).

## CARICOM's Importance to India's Global South Objective:

- **Enhancing Ties with Developing Nations:** For India, building stronger ties with CARICOM aligns with its broader strategic objective of enhancing partnerships with developing countries.

- **Additional Global Platform for India:** The Caribbean nations, many of which are also Commonwealth members, provide India with additional platforms for cooperation in international forums, particularly on issues of mutual interest such as trade, climate change, and disaster management.
- **Common Concerns:** India and CARICOM have common concerns about the effects of climate change.
  - Rising sea levels, extreme weather events, and environmental degradation pose existential threats to many Caribbean nations, making climate action a priority in their foreign policy agendas.
- **Indian Diaspora:** The Indian diaspora in CARICOM countries plays a pivotal role in maintaining people-to-people ties between the two regions.

### GLOBAL SOUTH

- The Global South refers to various countries around the world that are sometimes described as 'developing', 'less developed' or 'underdeveloped'.
  - It includes countries in Asia, Africa and South America.
  - Many of these countries are in the Southern Hemisphere, largely in Africa, Asia and Latin America.
  - They are poorer, have higher levels of income inequality and suffer lower life expectancy and harsher living conditions.
- **Global North** refers to developed countries like the US, Canada, Europe, Russia, Australia and New Zealand.

## PRIME MINISTER MODI'S VISIT TO GUYANA

*Prime Minister Narendra Modi became the first Indian head of state to visit Guyana in over 56 years, marking a historic milestone in India-Guyana relations.*

### Key Highlights:

- The President of the Co-operative Republic of Guyana conferred upon PM Modi the highest national award of Guyana, **"The Order of Excellence".**
- India and Guyana **signed 10 MoUs**, covering areas such as hydrocarbons, digital payment systems, pharmaceuticals, and defense cooperation.

### KEY MOU SIGNED BETWEEN INDIA AND GUYANA

- MoU on Cooperation in the **Hydrocarbons Sector** and MoU for Bilateral Cooperation in the **field of Agriculture and Allied Sectors,**
- MoU for Recognition of **Indian Pharmacopoeia,**
- MoU for **Supply of medicines to Public Procurement Agencies of CARICOM countries** at affordable prices under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP),

- **INDIA STACK MoU** on Cooperation in the field of sharing successful digital solutions implemented at population scale for digital transformation,
- MoU between NPCI International Payments Ltd and Ministry of Foreign Affairs, Guyana for enabling **deployment of UPI like system in Guyana,**
- MoU on Cooperation and collaboration in field of Broadcasting between **Prasar Bharti and National Communications Network, Guyana,**
- MoU between NDI (National Defence Institute, Guyana) & RRU (Rashtriya Raksha University, Gujarat).

### Guyana-India Bilateral Relations:

- **Establishment of Diplomatic Missions:** The Indian Commission was established in Georgetown, Guyana in May **1965,** marking the beginning of formal diplomatic relations. The mission was upgraded to a **High Commission in 1968.**
- **Cultural Diplomacy:** The **Swami Vivekananda Cultural Centre** was set up in **1972** to foster cultural exchange and enhance mutual understanding between the peoples of India and Guyana.
- **Development Cooperation:** India's engagement in development assistance to Guyana has been significant, particularly under the **Indian Technical & Economic Cooperation (ITEC) program.**
- **Infrastructure Support:** India has supported critical infrastructure projects in Guyana, such as; National Cricket Stadium, Solar Traffic Lights, **Centre of Excellence in Information Technology (CEIT)** etc.

### Challenges:

- **Geopolitical Competition:** Guyana's strategic importance in the oil and gas sector has attracted global powers, especially given the influence of countries like China and the US.
- **Infrastructure Deficit:** Limited infrastructure in Guyana poses logistical and operational challenges for the rapid expansion of trade and investment.
- **Vulnerability to Climate Change:** Guyana, as a low-lying coastal state, is particularly vulnerable to rising sea levels and extreme weather, potentially impacting developmental cooperation projects.

### Way Ahead:

- **Deepening Energy Collaboration:** India should establish long-term agreements for oil imports and explore joint ventures in **Guyana's hydrocarbon sector.**
- **Enhancing Regional Outreach:** Strengthening Guyana's role as a gateway for India's engagement with **CARICOM countries** can help India expand its influence in Latin America and the Caribbean.

- **Institutional Partnerships:** Enhancing collaboration in education, health, and digital governance will foster sustainable and inclusive growth in Guyana while showcasing India as a reliable partner.

### GUYANA

- **Location:** Guyana, is located in the northeastern corner of South America.
- **Bordering Nations:** Guyana is bordered by the **Atlantic Ocean** to the north, by **Suriname** (along the Courantyne River) to the east, by **Brazil** to the south and southwest, and by **Venezuela** to the west.
- **Major rivers:** Courantyne, Berbice, Demerara, and Essequibo.
- **Oil reserves:** Guyana has gained significant salience in the oil & gas sector with the new discoveries of **11.2 billion barrels** of oil equivalent, amounts to **18%** of total global Oil & Gas discoveries.



## 2ND INDIA-AUSTRALIA ANNUAL SUMMIT

*The Prime Minister of India and the Prime Minister of Australia held the second India-Australia Annual Summit on the sidelines of the Group of 20 (G20) Summit in Rio de Janeiro.*

### Outcomes of India -Australia Summit:

- **Bilateral Progress:** Both Prime Ministers acknowledged significant progress in strengthening ties across sectors like climate change, renewable energy, trade, investment, defence, education, and people-to-people relations.
- **Economic Cooperation:**
  - India-Australia Economic Cooperation and Trade Agreement (ECTA) is boosting trade and market access. Work toward a more comprehensive Comprehensive Economic Cooperation Agreement (CECA) is underway.
  - The Australia-India Business Exchange (AIBX) programme extended for another four years to strengthen business connections.
- **Energy and Environment:** Launch of the India-Australia Renewable Energy Partnership (REP) for cooperation in solar PV, green hydrogen, energy storage, and renewable energy workforce development.

- **Space Cooperation:** Growing space partnership with joint projects, such as support for Gaganyaan missions and the launch of Australian satellites on Indian vehicles in 2026.
- **Parliamentary Cooperation:** Emphasis on continued inter-parliamentary cooperation as part of the strategic partnership.
- **Education, People-to-People and Mobility:** Working Holiday Maker visa programme and MATES mobility scheme to enhance people-to-people ties and mobility of professionals.
- **Regional and Multilateral Cooperation:** Commitment to a free, open, and inclusive Indo-Pacific, with shared interests in regional peace, stability, and sovereignty.
  - Support for Quad initiatives in health, security, infrastructure, and climate change.
  - Reinforcement of ASEAN centrality and cooperation under regional frameworks like the East Asia Summit and Indo-Pacific Oceans Initiative.
- **Counter-Terrorism and Global Issues:** Both leaders reaffirmed their commitment to combating terrorism and explored cooperation on terrorism financing.

### MATES SCHEME

Australia has come up with a new scheme for Indians called Mobility Arrangement for Talented Early-professionals Scheme (MATES).

**About:**

- In 2023, Australia and India entered into a Migration and Mobility Partnership Arrangement (MMPA).
  - It is a bilateral framework that supports migration and mobility between the two countries, while addressing issues pertaining to illegal and irregular migration.
- MATES has been established under the MMPA.

**Provisions:**

- It gives Indian university graduates and early career professionals **a chance to work in Australia for two years.**
- **3,000 spots are available** for primary applicants annually during the first pilot period.
- The scheme will be available to graduates from the **top 100 Indian universities** according to the National Institutional Ranking Framework (NIRF) ranking for 2024.
- **Eligibility:** MATES will be open to Indian nationals who:
  - are aged 30 or younger (inclusive) at the time of application;
  - have proficient English language skills;
  - have graduated within 2 years from an eligible educational institution at the time of application;
  - and hold a qualification (Bachelor's degree or higher) in one of the following: renewable energy, mining, engineering, Information Communications Technology (ICT), artificial intelligence (AI), etc.
- MATES participants are not eligible to take part in the Scheme more than once.

## ISRAEL-LEBANON CEASEFIRE

*Israel and Lebanon entered into a ceasefire after Israel's security cabinet approved a US-backed proposal to end the 13-month-long conflict.*

### About:

- The proposal follows **UN Resolution 1701** and calls for a cessation of hostilities within 60 days.
  - Hezbollah fighters will retreat 40 kilometers away from the Israel-Lebanon border.
  - Israeli forces are expected to withdraw from Lebanese territory occupied in October 2023.
  - Lebanon will supervise Hezbollah's movements south of the Litani River, with oversight by UN peacekeepers, the Lebanese military, and a multinational committee.
- **Purpose:** The ceasefire aims to be a permanent cessation of hostilities, with a focus on ensuring that Hezbollah and other terrorist organizations no longer pose a threat to Israel's security.
  - Hostilities along the **UN-demarcated Blue Line** between Israel and Lebanon had increased since October 2023, following Israel's offensive in Palestine.

### UN Resolution 1701:

- It was passed by the **UN Security Council in 2006**, calling for a permanent ceasefire between Israel and Hezbollah, and the creation of a buffer zone.
- It sought the full withdrawal of Israeli forces from southern Lebanon and the disarmament of Hezbollah.
- UN Interim Force in Lebanon (UNIFIL) peacekeepers were authorized to monitor the situation, and the resolution aimed for a long-term solution to avoid resumption of hostilities.

## OPCW-THE HAGUE AWARD 2024

*Recently, the Indian Chemical Council (ICC) has won the OPCW-The Hague Award 2024 Award. This is the first time the award has been given to a chemical industry body.*

### About:

- **Establishment:** The Organisation for the Prohibition of Chemical Weapons (OPCW), in partnership with the Municipality of The Hague, introduced the OPCW-The Hague Award in 2014.
- **Purpose:** It recognizes significant contributions by individuals and organizations, including academics, researchers, the chemical industry, and civil society, towards achieving a chemical weapons-free world.
- **Award Details:** Recipients are honored with a medallion, a certificate, and a share of the €90,000 award fund.

### Indian Chemical Council (ICC):

- **Established:** in 1938, it is India's premier body representing the chemical industry.
- **Representation:** The ICC serves as the apex national organization for branches like Organic & Inorganic Chemicals, Plastics, Petrochemicals, and Petroleum Refineries.
- **Certificate Issuance:** Authorized by the Ministry of Commerce & Industry, Government of India, to issue the Certificate of Origin for exporters through its offices in Mumbai, New Delhi, Kolkata, and Chennai.
- **ICC's Initiatives:**
  - **Nicer Globe Initiative:** Enhances chemical transportation safety in India by providing real-time monitoring and emergency response capabilities.
  - **Responsible Care (RC) Programme:** Promotes chemical safety and security with the implementation of a Security Code under the RC program.

### ORGANISATION FOR THE PROHIBITION OF CHEMICAL WEAPONS (OPCW)

- **Established:** It is an international organization established by the Chemical Weapons Convention (CWC) in 1997 to implement and enforce the terms of the CWC.
- **Mission:** It aims to eliminate chemical weapons, prevent their use, and promote peaceful cooperation in chemistry worldwide.
- **Functions:**
  - Receives declarations from states-parties about chemical weapons-related activities and industrial operations.
  - Oversees compliance with the CWC.
- **Achievements:** Awarded the Nobel Peace Prize in 2013 for its efforts.
- **Headquarters:** Located in The Hague, Netherlands.

## GLOBAL ALLIANCE AGAINST HUNGER AND POVERTY

*Recently, it was launched at the G20 Leaders' Summit in Rio de Janeiro, Brazil.*

### About:

- It is a voluntary coalition comprising governments, international organizations, NGOs, and other stakeholders dedicated to eradicating hunger **(SDG 2)**, poverty **(SDG 1)**, reducing inequalities **(SDG 10)**, and advancing other interconnected SDGs.
- The coalition operates through three pillars at the country level: **knowledge, finance, and innovation.**

## ALLIANCE OPERATION AT GLOBAL LEVEL—
## FORMING A WEB OF VOLUNTARY COMMITMENTS FOR PARTNERSHIPS

**NATIONAL PILLAR**
Domestic policy and programme implementation and/or direct country-to-country support and lesson sharing, South-South and trilateral cooperation.

**FINANCIAL SUPPORT PILLAR**
Multilateral funding. Official bilateral and multilateral assistance and development finance. Innovative financial mechanisms, climate funding, philantropies, others.

**KNOWLEDGE PILLAR**
*Institutions for:*
Technical assistance and cooperation, Capacity building, knowledge sharing.

**STATEMENTS OF COMMITMENT**
Commit to implement and/or support others, share learnings

**STATEMENTS OF COMMITMENT**
Commit to support implementation

**STATEMENTS OF COMMITMENT**
Commit to support implementation

**GLOBAL ALLIANCE AGAINST HUNGER AND POVERTY**

**POLICY BASKET**

Improved alignment formed through fully voluntary commitments to implementation and/or support to implementation of nationally-owned policies among those in a curated reference basket of examples.

### Strategic commitments of the Alliance:
- **Reach 500 million people** being part of income distribution programs by 2030;
- **Expand school meals to 150 million children** in countries with high child hunger rates;
- **Mobilize billions of dollars** through multilateral banks for effective anti-poverty programs.

#### ADDITIONAL INFORMATION
- **Definition of Hunger:** The **Food and Agriculture Organization (FAO)** defines hunger as food deprivation, or undernourishment, as the habitual consumption of too few calories to provide the minimum dietary energy an individual requires to live a healthy and productive life, given that person's sex, age, stature, and physical activity level.

*India's Progress on Hunger and Poverty Alleviation:*
- **Poverty Alleviation:** Between 2014 and 2024, India has lifted **250 million people out of poverty.**
- **Food Security:** Over **800 million people** are provided with free food grains.

- **Health Insurance:** The Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana **(PM-JAY)** benefits **550 million people** with health insurance coverage.
- **Financial and Social Inclusion:** 300 million women micro-entrepreneurs have gained access to credit by being linked to banks.
- **Farmer Support:**
  - Under the Pradhan Mantri Fasal Bima Yojana (PMFBY), over 40 million farmers have received benefits worth $20 billion.
  - Through PM-KISAN, $40 billion in assistance has been provided to 110 million farmers.
  - India has developed more than 2,000 climate-resilient crop varieties to support agricultural sustainability.
- **Nutritional Focus:**
  - The **Saksham Anganwadi and Poshan 2.0** campaign addresses the nutritional needs of pregnant women, newborns, children under 6, and adolescent girls.
  - The **Mid-Day Meal scheme** ensures proper nutrition for school-going children.

## RBI RELEASES LIST OF DOMESTIC SYSTEMICALLY IMPORTANT BANKS (D-SIBS)

*Recently, the Reserve Bank of India (RBI) reaffirmed State Bank of India (SBI), HDFC Bank, and ICICI Bank as D-SIBs for 2024, maintaining their classification under the same bucket structure as in 2023.*

### About:

- **Definition:**
  - D-SIBs refer to banks whose failure could have catastrophic repercussions on a country's economy due to their size, complexity, and strong interconnectedness with other financial institutions.
  - They are colloquially termed **"Too Big to Fail"** (TBTF), reflecting the critical role they play in maintaining the financial system's stability.
  - D-SIBs' importance lies in their systemic relevance. If one were to fail, the ripple effects could destabilize the financial system, affect public confidence, and harm the economy.
  - To safeguard against such risks, D-SIBs are subject to enhanced oversight, stricter capital requirements, and comprehensive risk management measures.

- **Enhanced Requirements for D-SIBs:**
  - D-SIBs are mandated to maintain **additional capital buffers** over and above the standard requirements for banks. These measures:
    - Strengthen their capacity to absorb losses.
    - Reduce the probability of failure.
    - Ensure orderly resolution if financial distress arises.
  - **Other measures include:**
    - Conducting **stress tests** to assess their ability to withstand economic shocks.
    - Preparing **recovery and resolution plans** to ensure continuity during crises.

- **Key Objectives of RBI's D-SIB Framework:**
  - **Strengthen Financial Stability:** Prevent systemic disruptions by ensuring D-SIBs can withstand adverse conditions.
  - **Accountability and Governance:** Promote sound risk management and prudent decision-making within D-SIBs.
  - **Address Risks to the Economy:** Reduce the domino effect of a D-SIB's failure on the broader economy.

- **Classification of D-SIBs in India:**
  - D-SIBs are ranked into **buckets** based on their systemic importance scores:

- **Bucket 1:** Lowest risk (less stringent regulatory requirements).
- **Bucket 4:** Highest risk (most stringent regulatory measures).
- Buckets help tailor the additional capital requirements to the systemic risk posed by the bank.

- **India's D-SIBs (2023):**
  - **State Bank of India (SBI):** Placed in **Bucket 4** due to its significant systemic footprint. SBI must maintain an **additional 0.80% Common Equity Tier 1 (CET1)** capital buffer.
  - **HDFC Bank:** Classified in **Bucket 3**, with an additional **0.40% CET1** requirement.
  - **ICICI Bank:** Ranked in **Bucket 1**, requiring an additional **0.20% CET1** buffer.

- **Selection Process for D-SIBs:**
  - **Step 1:** Sample Selection
    - Not all banks are assessed. Only banks with **assets exceeding 2% of GDP** are eligible for D-SIB evaluation.
  - **Step 2:** Systemic Importance Assessment
    - The RBI evaluates eligible banks using key indicators, including:
      - *Size:* Larger banks pose greater systemic risks.
      - *Interconnectedness:* Links with other financial institutions.
      - *Substitutability:* How easily a bank's services can be replaced by others.
    - A composite score is calculated, and banks surpassing a threshold score are designated as D-SIBs.

- **Global Context: G-SIBs**
  - **Global Systemically Important Banks (G-SIBs)** are large, international banks whose failure would cause disruptions at a global level.
  - G-SIBs are identified by the **Financial Stability Board (FSB)**, working with the **Basel Committee on Banking Supervision (BCBS).**
  - The assessment considers factors like size, cross-border activity, interconnectedness, and substitutability.
  - There are **29 G-SIBs** worldwide, including major banks like:
    - JP Morgan Chase, Bank of America, Citigroup (USA).
    - HSBC, Barclays (UK).
    - Agricultural Bank of China, Bank of China (China).

- **Capital Buffers Based on Risk:**
  - Both D-SIBs and G-SIBs are required to maintain **Common Equity Tier 1 (CET1)** capital as additional buffers, varying by their systemic importance.

- The more critical a bank's role in the financial ecosystem, the higher the CET1 capital requirement.

### ADDITIONAL INFORMATION

- **Common Equity Tier 1 (CET1):**
  - It is a critical component of a bank's capital and a key measure of its financial strength.
  - CET1 capital includes the bank's common shares, retained earnings, and other comprehensive income, excluding items like intangible assets and deferred tax assets that could reduce its ability to absorb losses.
- **Risk Weighted Assets (RWAs):**
  - It is used to determine the minimum amount of capital a bank needs to hold to cover potential losses, ensuring the bank remains stable in times of financial stress.
  - Assets are assigned different risk weights (e.g., 0% for cash, higher percentages for loans) based on their likelihood of default.
  - Riskier assets like loans or derivatives have higher weights, requiring more capital.

## NATIONAL FINANCIAL REPORTING AUTHORITY (NFRA)

*Recently, the National Financial Reporting Authority (NFRA) approved 40 audit standards, aligning them with international norms.*

### About:
- **Establishment:**
  - The **National Financial Reporting Authority (NFRA)** was constituted in **2018** by the **Government of India** under **Section 132(1) of the Companies Act, 2013.**
  - NFRA serves as an **audit regulator**, focusing on ensuring the quality of financial reporting and auditing practices in India.
  - The formation of NFRA followed scrutiny over the role of auditors and the **Institute of Chartered Accountants of India (ICAI)** in various corporate frauds, including the notorious **Punjab National Bank scam.**
- **Organizational Structure:**
  - The NFRA comprises a **Chairperson** and **up to 15 other members.**
  - The **Chairperson** must be a person of high repute, possessing substantial expertise in areas such as **accountancy**, **auditing**, **finance**, or **law**, and is appointed by the **Central Government.**
- **Key Responsibilities:**
  - **Recommending Policies:** NFRA advises the **Central Government** on the adoption of **accounting** and **auditing standards** for companies in India.

- **Monitoring Compliance:** It ensures companies adhere to these standards, overseeing the enforcement of both **accounting** and **auditing norms.**
- **Service Quality Oversight:** NFRA plays a role in ensuring the **quality of services** provided by professionals involved in auditing and accounting. It also recommends improvements to raise the standards of service quality.
- **Public Interest Protection:** One of NFRA's primary duties is safeguarding the **public interest**, ensuring transparency, and holding auditors accountable for their role in corporate governance.
- **Scope of Investigation:** NFRA can investigate **Public Interest Entities (PIEs)**, which include:
  - Companies whose securities are listed either in **India** or internationally.
  - Unlisted public companies meeting any of the following thresholds:
    - Paid-up capital of Rs. 500 crores or more.
    - Annual turnover of Rs. 1,000 crores or more.
    - Aggregate outstanding loans, debentures, and deposits of Rs. 500 crores or more.
  - Insurance companies, banking institutions, and companies involved in electricity generation or supply.
- **Penal Powers:**
  - In cases where **misconduct** is found in professional activities, NFRA has the authority to impose penalties:
    - For **individuals**, penalties range from **Rs. 1 lakh** to **five times** the fees received.
    - For **firms**, penalties can range from **Rs. 10 lakh** to **ten times** the fees received.
- **Accountability Mechanisms:** NFRA's functioning is monitored by the **Comptroller and Auditor-General of India (CAG)**, ensuring transparency and accountability in its operations.
- **Headquarters:** New Delhi

## PRIME MINISTER INTERNSHIP SCHEME 2024

*Recently, nearly 6.5 lakh youth submitted applications for internships under the pilot project of the PM Internship Scheme in top companies.*

### About:
- **Objective:**
  - **Enhancing Youth Employability:**
    - The internship scheme is designed to significantly enhance **youth employability** in India by providing hands-on exposure to **real-world business environments.**
    - It aims to **bridge the skills gap** in India's workforce, driving **sustainable growth** by equipping young individuals with practical experience that aligns with industry demands.

- According to the Economic Survey 2023-24 approximately 51% of Youth are considered employable this means that one in two graduates is not readily employable straight out of college.
- **Target and Duration:**
  - **One crore youth** will be provided internship opportunities over the course of **five years**, targeting internships in the **top 500 companies** across various sectors.
  - The internship period is set at **one year**, offering a deep, immersive learning experience in leading organizations.
- **Implementation and Financial Support:**
  - The pilot project will be implemented through an **online portal** managed by the **Ministry of Corporate Affairs (MCA).**
  - Interns will receive a **monthly stipend** of **₹4,500** through the **Direct Benefit Transfer (DBT)** system from the central government.
  - Additionally, companies will contribute an **extra ₹500** per month from their **Corporate Social Responsibility (CSR)** funds.
  - Interns will also receive a **one-time joining grant of ₹6,000**, along with **insurance coverage** under the **PM Jeevan Jyoti Bima Yojana** and **PM Suraksha Bima Yojana.**
- **Eligibility Criteria:**
  - **Age:** Candidates aged between **21 and 24 years** who are not employed full-time.
  - **Education:** Internships are available to individuals who have passed **Class 10 or higher.**
  - **Income:** Candidates from families with an **annual income of ₹8 lakh or more** in 2023-24 are **not eligible**
  - **Exclusions:**
    - Those with **post-graduate degrees** or higher qualifications like **CA**, **CMA**, or graduates from prestigious institutions such as **IITs**, **IIMs**, or **IISERs** are excluded.
    - **Government employee households** are also excluded from the scheme.
- **Vacancies and Participation:**
  - For **FY 2024-25**, **1,25,000 positions** will be available across **500 top companies**, selected based on their **average CSR expenditure** over the past three years.
  - **Voluntary participation**: Participation by the companies is voluntary, though they are encouraged to take part in this transformative initiative.
- **Key Benefits of the Scheme:**
  - **For Youth:**
    - The scheme provides **on-the-job training** and exposure to **real-life work environments**, boosting skills and employability.
    - Interns will gain valuable insights and experience working with top companies, improving their chances of full-time employment.
  - **For Industry:**

- The scheme creates a **pipeline of skilled, work-ready youth** who are trained and capable of contributing to large and **micro, small, and medium enterprises (MSMEs).**
- Industries will benefit from an influx of trained talent ready to meet the evolving demands of their businesses.

## GI TAG TO NARASAPUR CROCHET LACE CRAFT

*Recently, Narasapuram lace from the West Godavari district, Andhra Pradesh, received the Geographical Indication (GI) tag.*

### About:

- **Location:** Narsapur is located on the banks of the Godavari River in the state of Andhra Pradesh.
- **Origin of Craft:**
  - The intricate craft of lacework in Narsapur is believed to have originated approximately 150 years ago.
  - It was started by the women of the local farming community, who began weaving colorful lace into decorative artefacts.
  - This art form has not only been passed down through generations but has also evolved, gaining recognition for its finesse and detailed craftsmanship.
- **Involvement:** By the early 1900s, more than 2,000 women were involved in the craft, creating a significant industry in the Godavari region.
- **Technique:**
  - The Narsapur lacework is meticulously crafted using thin cotton threads.
  - These threads are woven together with crochet needles of varying sizes, which results in the creation of delicate and intricate lace patterns.
- **Exports:**
  - Many of the handcrafted crochet items produced in Narsapur are exported to international markets, including the United States, the United Kingdom, and France.
  - The global demand for these products has helped boost the local economy and spread awareness of this traditional craft worldwide.

### GEOGRAPHICAL INDICATION (GI) TAG

- **Definition:**
  - A Geographical Indication (GI) tag is a form of intellectual property used to indicate that a product comes from a specific geographical region and has qualities, reputation, or characteristics that are intrinsic to that region.
  - These qualities may include unique production techniques, local climate conditions, or other geographical factors that give the product its distinctive nature.

- **Legal Protection:**
  - GI tags are a legal tool that provides protection for products, ensuring that only those from the designated region can legally use the tag.
  - This prevents unauthorized parties from falsely claiming the same origin for similar products, thus safeguarding the reputation and authenticity of the product.
- **Regulation in India:**
  - In India, the Geographical Indications of Goods (Registration and Protection) Act, 1999 governs the registration and protection of GIs.
  - This Act enables the registration of products with a GI tag, granting them legal recognition.
  - It ensures that only authorized producers in the region are permitted to use the GI tag, thus preventing misuse and preserving the integrity of the product.

## NETWORK READINESS INDEX 2024

*Recently, India has been ranked 49th in the Network Readiness Index 2024 (NRI 2024) report.*

### About:
- The **NRI** is an annual report published by the **Portulans Institute** that evaluates the digital readiness of 133 economies across the globe.
- It does so by assessing 54 variables under four main pillars: **Technology, People, Governance**, and **Impact**.
  - **Technology:** Focuses on a country's infrastructure and the adoption of digital tools and services.
  - **People:** Looks at how individuals are able to access and benefit from digital opportunities, including literacy and connectivity.
  - **Governance:** Evaluates the policies and regulations that enable or hinder digital advancements.
  - **Impact:** Measures how digital transformation affects the economy and society, including economic growth, job creation, and social development.
- **India's Achievements:** India has made significant progress in its digital transformation, as reflected in its improved **NRI score**, which increased from **49.93** in **2023** to **53.63** in **2024**.
- **Global Rankings in Key Sectors:**
  - **1st Rank Globally:**
    - *AI Scientific Publications:* India leads the world in the number of research publications and studies related to Artificial Intelligence, showcasing its growing research and development capacity.
    - *AI Talent Concentration:* The country has a large and increasing pool of AI professionals and experts, positioning it as a global leader in AI innovation.

- *ICT Services Exports:* India remains the largest exporter of Information and Communication Technology (ICT) services, reflecting its dominance in the global tech outsourcing industry.
  - **2nd Rank Globally:**
    - *Fiber to the Premises (FTTH) Internet Subscriptions:* India ranks second globally in the adoption of high-speed fiber-optic internet subscriptions, indicating the country's strong push toward high-speed internet infrastructure.
    - *Mobile Broadband Traffic:* The nation ranks second for mobile broadband traffic, driven by a rapid increase in smartphone usage and data consumption.
    - *International Internet Bandwidth:* India has secured the second spot for international internet bandwidth, showcasing its role as a key global player in data traffic and connectivity.
  - **3rd Rank Globally:**
    - *Domestic Market Scale:* India's vast consumer base has helped it secure the third rank for the scale of its domestic market, highlighting the size and growth potential of its digital economy.
  - **4th Rank Globally:**
    - *Annual Telecom Investments:* India's telecom sector has seen substantial investment, helping the country maintain a leading role in global telecom development.
- **Telecom Advancements in India:**
  - **Tele-density:**
    - India's tele-density reached **84.69%**, meaning that a significant majority of the population now has access to telecommunication services.
    - Additionally, there are **119 crore wireless connections**, reflecting widespread adoption of mobile technology.
  - **Internet Subscribers:**
    - The number of internet subscribers in India has skyrocketed, increasing from **25.1 crore** to **94.4 crore**.
    - This growth has been fueled by the widespread availability of affordable smartphones, low-cost data plans, and a government push to improve digital infrastructure.
  - **5G Launch:**
    - The **launch of 5G services in 2022** marked a transformative moment in India's telecom sector.
    - This has significantly improved mobile broadband speed, driving India's ranking from **118th** globally to **15th**.
  - **Bharat 6G Vision:**
    - India is already looking ahead with the **Bharat 6G Vision**, positioning itself as a potential leader in the next generation of telecom technology.
    - This vision focuses on providing widespread, ultra-fast 6G internet connectivity across the country, which will be vital for future technological advancements, including smart cities, IoT (Internet of Things), and autonomous systems.

## ASIAN DEVELOPMENT BANK (ADB)

> *Recently, the Board of Governors of the Asian Development Bank (ADB) unanimously elected Masato Kanda as the 11th President of ADB.*

### About:
- **Establishment:** On 19th December 1966
- **Objective:** It is the principal international development finance institution for the Asia-Pacific region.
  - Supports projects in developing member countries that create economic growth and development impact.

### Functions:
- **Financial Assistance:** ADB provides financial support to its **developing member countries** in the form of:
  - **Grants:** Non-repayable funds for specific projects or programs, often related to poverty alleviation or development.
  - **Loans:** Low-interest or concessional loans provided for large-scale development projects like infrastructure, education, and healthcare.
  - **Technical Assistance:** Advisory and expertise services to improve project planning, design, and implementation, along with capacity building for institutions.
  - **Equity Investments:** Investments in private enterprises and projects that have a high potential for development and poverty reduction impact.
- **Maximizing Development Impact:**
  - ADB maximizes the effectiveness of its funding by **facilitating policy dialogues** with governments to ensure the alignment of development strategies and objectives.
  - It provides **advisory services** to governments and other stakeholders to improve governance, institutional reforms, and financial management.
  - ADB also mobilizes additional financial resources through **cofinancing operations**, partnering with other financial institutions, such as governments, commercial banks, and export credit agencies, to fund large-scale projects.
- **Headquarters:** Manila, Philippines

### Membership in the ADB:
- **Eligibility:**
  - Membership is open to all countries and entities that are members of the **United Nations (UN)** or its **specialized agencies**.
  - Initially, membership was available to countries from the **United Nations Economic Commission for Asia and the Far East (ECAFE)**, which has since been replaced by **ESCAP (United Nations Economic and Social Commission for Asia and the Pacific)**.

- **Growth of Membership:**
  - The ADB began with **31 members** at the time of its establishment in 1966. Over the years, its membership has expanded to include **69 members** as of today.
    - 49 members are from Asia and the Pacific.
    - 19 members are from outside the region, including non-regional developed countries.

### Control Structure of ADB:
- **Board of Governors:**
  - The ADB is governed by a **Board of Governors**, which consists of one representative from each of its member countries.
  - These governors usually include finance ministers or central bank governors from each member country.
- **Voting System:**
  - ADB's voting system is **weighted** based on each member's **capital subscription**, meaning that countries contribute to the bank's capital in proportion to their voting power.
  - This voting system is similar to that of the **World Bank**. As a result, larger economies with more financial contributions have a greater say in ADB's decision-making process.
- **Largest Shareholders:**
  - **Japan** and **United States** each hold **15.6%** of total shares, making them the largest shareholders.
  - **China** holds **6.4%** of shares.
  - **India** holds **6.3%** of shares.
  - **Australia** holds **5.8%** of shares.

## GLOBAL WAGE REPORT 2024-25: ILO

> *Recently, the International Labour Organization (ILO) published the Global Wage Report 2024-25.*

### Major Highlights of the Report:
- **Decrease in Wage Inequality:** The wage inequality has decreased at an average rate of 11.1% per annum in about two-thirds of all countries around the world since 2000.
- **Increase in Global Wages:** Global wages have grown faster than inflation in recent times.
  - The global real wages grew by 1.8% last year, while the projections have reached 2.7% growth in 2024, the highest increase in over 15 years.
- **Regional Disparity in Growth:** Africa, Northern America and parts of Europe recorded stagnant or negative real wage growth.
- **Persistent inequality:** Low-income countries suffer from significantly higher wage inequality compared to high-income nations, with nearly 22% of workers earning less than half the median hourly wage.

- **Decoupling between productivity and wages:** Despite a 29% rise in productivity in high-income countries between 1999 and 2024, real wages have only risen by 15%, highlighting a failure to share productivity gains equitably with workers.
- **A continual gender wage gap:** Women, especially in lower-middle-income countries, remain disproportionately affected by wage inequality due to overrepresentation in informal, precarious and low-paid work.
- **Indian Scenario:**
  - The shares of low-paid wage workers and low-paid non-wage workers in India declined at an average annual rate of 6.3% and 12.7% between 2008 and 2018.
  - The share of low-paid wage workers — those earning less than 50% of the median hourly wage in the country — stands at 9.5% in India.
  - On the other hand, it is 9.4% for Pakistan, 10.5% for Nepal, 11.2% for Bangladesh, 13.7% for Bhutan and 25.9% for Sri Lanka.
- **Analysis:**
  - Despite the positive trend, significant wage differentials persist worldwide.
  - Such positive outcomes mark a notable recovery compared to the negative global wage growth, of -0.9%, observed in 2022.
  - The emerging economies have experienced stronger growth than the advanced ones.

### INTERNATIONAL LABOUR ORGANIZATION (ILO)

- **Establishment:** The ILO is a United Nations agency established in 1919 under the Treaty of Versailles that ended World War I.
- **UN Specialized Agency:** It became the first specialized agency of the UN in 1946.
- **Membership:** The ILO has 187 member states.
- **Purpose:** It sets labor standards, develops policies, and creates programs to promote decent work for all, regardless of gender.
- **Tripartite Structure:** The ILO is the only tripartite UN agency, bringing together governments, employers, and workers.
- **Headquarters:** Its headquarters are located in Geneva, Switzerland.
- **Major Reports:** Major reports published by the ILO include the World Employment and Social Outlook (WESO), Global Wage Report, World Social Protection Report, World Employment and Social Outlook for Youth, and World of Work Report.

## INDEX OF EIGHT CORE INDUSTRIES (ICI)

*The Index of Eight Core Industries (ICI) recorded a growth of 3.1% in October 2024, in comparison to October 2023.*

**About:**

- The **Index of Core Industries (ICI)** is a key economic indicator designed to assess the production performance of eight core industries, which are pivotal to India's industrial and economic activity.
- Its primary function is to provide early insights into the industrial output of these essential sectors before the official release of the **Index of Industrial Production (IIP)** by the **Central Statistics Office (CSO)**.
- **Core Industries Covered by the ICI:** The eight industries included in the ICI are:
  - **Coal (10.33%):** Coal production (excluding coking coal).
  - **Crude Oil (8.98%):** Total crude oil production.
  - **Natural Gas (6.88%)**: Total natural gas production.
  - **Petroleum Refinery Products (28.04%):** Total refinery production (measured in terms of crude throughput).
  - **Fertilizers (2.63%):** Includes production of various fertilizers such as urea, Ammonium Sulfate (A/S), Calcium Ammonium Nitrate (CAN), Ammonium Chloride (A/C), Diammonium Phosphate (DAP), complex grade fertilizers, and Single Superphosphate (SSP).
  - **Steel (17.92%):** Production of alloy and non-alloy steel.
  - **Cement (5.37%):** Production from both large plants and mini plants.
  - **Electricity (19.85%):** Actual electricity generation from thermal, nuclear, hydro power sources, and imports from Bhutan.
- **Released by:** The Office of the Economic Adviser (OEA), under the Department of Industrial Policy & Promotion (DIPP), Ministry of Commerce & Industry.
- **Significance:**
  - **Government Ministries and Departments:** The Ministry of Finance, Ministry of Commerce, and Ministry of Industry regularly use ICI data to track economic performance and make policy adjustments.
  - **Banks and Financial Institutions:** These organizations use ICI data to assess the performance of the industrial sector, which in turn impacts credit flows, investment strategies, and economic forecasts.
  - **Reserve Bank of India (RBI):** The **RBI** utilizes the ICI for macroeconomic monitoring and formulation of monetary policy. It helps in understanding industrial sector performance, which is closely tied to inflation, interest rates, and overall economic stability.
  - **Infrastructure and Industry Planners:** The ICI plays a crucial role in shaping infrastructure development strategies, especially in sectors like power, construction, and manufacturing.
  - **Academics and Research Institutions:** Economists and researchers use the ICI to analyze industry trends, forecast economic performance, and study the interlinkages between core industrial sectors and broader economic outcomes.

# NEW FRAMEWORK FOR RECLASSIFICATION OF FPI TO FDI

*The Reserve Bank of India issued guidelines to reclassify foreign portfolio investments as foreign direct investments if the prescribed investment thresholds are breached.*

## Key Highlights:

- **Threshold Crossing and Reclassification:**
  - **Foreign Portfolio Investors (FPIs)** who acquire more than **10% of the total paid-up equity** in an Indian company are subject to reclassification rules.
  - Once the 10% threshold is crossed, FPIs have two options:
    - **Divest their holdings:** FPIs may choose to reduce their stake below the 10% threshold to avoid reclassification to FDI.
    - **Reclassify their holdings as Foreign Direct Investment (FDI):** If FPIs choose to retain their stake above 10%, they must reclassify their holdings as FDI.
- **Definition of Foreign Direct Investment (FDI):**
  - **FDI** is defined as an investment made through **capital instruments** by a **non-resident** person in India.
  - FDI is categorized based on the percentage of ownership in a company:
    - In **unlisted Indian companies**, FDI is any investment made by a foreign entity or individual.
    - In **listed Indian companies**, any foreign investment constituting **10% or more of the paid-up equity capital** is considered FDI.
    - Investments below 10% in listed companies are classified as **Foreign Portfolio Investment (FPI)**, which

implies a more passive investment approach compared to the active involvement associated with FDI.

- **Compliance Requirements for FPIs:**
  - FPIs must adhere to **reporting obligations** specified under the **Foreign Exchange Management (Mode of Payment and Reporting of Non-Debt Instruments) Regulations, 2019** (**FEM (NDI) Rules, 2019**).
  - These regulations require that investments made by non-residents in India follow established **entry routes**, **sectoral caps**, or **investment limits**, unless explicitly exempted.
    - These rules are designed to ensure transparency and adherence to India's foreign investment policies.
  - For instance, certain sectors or industries may have limits on the percentage of foreign ownership allowed, and FPIs must comply with these restrictions to ensure legal conformity.
- **Sectoral Restrictions for Reclassification:**
  - The framework explicitly **prohibits reclassification** to FDI in sectors where foreign direct investment is **restricted** or **prohibited** by Indian regulations.
  - **Some examples of such restricted sectors include:**
    - **Gambling and betting:** These industries are considered sensitive and are typically closed to foreign investment.
    - **Real estate business:** Restrictions apply to foreign investments in real estate, particularly for speculative purposes.
    - **Nidhi companies (Mutual Benefit Funds Companies):** These entities, primarily involved in mutual benefit financial activities, are not open to foreign direct investment.

| PARAMETER | FOREIGN DIRECT INVESTMENT (FDI) | FOREIGN PORTFOLIO INVESTMENT (FPI) |
|---|---|---|
| **Investment Type** | Direct investment in a company through ownership of shares, assets, or establishing new ventures. | Investment in financial assets like stocks, bonds, or mutual funds. |
| **Objective** | Long-term capital investment to gain a controlling stake or influence in a business. | Short- to medium-term gains from financial assets without the intent to control. |
| **Influence** | Investors typically gain a significant level of control and decision-making power within the company. | Investors do not have control over the company; they only seek financial returns. |
| **Regulation** | Subject to stricter government regulations, including approval from relevant authorities for large stakes or certain sectors. | Subject to less stringent regulations, with easier access to market entry. |
| **Risk** | Higher risk due to potential business and operational involvement. | Lower risk, as it's generally less tied to company performance and focuses on market fluctuations. |
| **Liquidity** | Less liquid, as it involves direct business involvement and operational constraints. | Highly liquid, as assets like stocks and bonds can be easily bought or sold. |
| **Impact on Economy** | Direct impact on job creation, technology transfer, and infrastructure development. | Indirect impact through capital flow and financial market development. |
| **Examples** | Setting up subsidiaries, mergers, acquisitions, joint ventures. | Buying shares in stock markets, purchasing government or corporate bonds. |

## GOLD RESERVES

> *Recently, the RBI raised its gold reserves to 855 metric tonnes, with foreign exchange reserves now covering 11.2 months of imports.*

### About:

- **Total Gold Reserves:** As of September 2024, India's total gold reserves held by the Reserve Bank of India (RBI) stand at 854.73 metric tonnes.
  - On a global scale, India ranks 8th for gold reserves.
- **Domestic and International Holdings:**
  - **Domestic Reserves:** A majority of the gold, 510.46 metric tonnes, is stored within India.
  - **Foreign Reserves:** The remaining 324.01 metric tonnes is held abroad, with Bank of England and the Bank for International Settlements (BIS) being the primary storage locations.
- **Gold as a Strategic Asset:** In addition to these physical holdings, **20.26 metric tonnes** of gold are maintained in the form of **deposits**, which play a crucial role in supporting liquidity and ensuring **financial stability**.
- **Gold's Share in Foreign Exchange Reserves:** By September 2024, gold accounted for 9.32% of India's total foreign exchange reserves, marking a rise from 8.15% at the end of March 2024.
  - This reflects the RBI's increasing reliance on gold as a **secure asset** amid global economic uncertainties.
- **Import Cover:** As of June 2024, India's foreign exchange reserves covered 11.2 months of imports, a slight decrease from 11.3 months in March 2024.
  - This metric is critical in gauging India's ability to withstand **external economic shocks**.
- **Short-Term Debt and Capital Flows:**
  - The **short-term debt** component of India's reserves rose from **19.7%** in March to **20.3%** in June 2024, indicating a higher proportion of reserves tied to short-term financial obligations.
  - **Volatile capital flows** (including short-term debt and portfolio inflows) grew to **70.1%** of reserves, signaling potential risks and opportunities in India's external financial position.
- **International Investment Position (IIP):** India's International Investment Position showed a year-over-year increase:
  - **External assets** rose by **$108.4 billion**.
  - **Liabilities** increased by **$97.7 billion**, reflecting active international financial participation.

### Gold Reserves:

- Gold has **lower co-relation with other asset classes** and, therefore, provides a **safety cushion** during periods of geopolitical stress and prevailing economic uncertainty and/or downturn in markets.

- **Prices of gold are** suggested to hold an **inverse relationship with interest rates.**
  - When interest rates are tightened gold becomes less attractive to investors as they do not offer any yield.
  - Conversely, lower interest rates coupled by a weaker dollar can prompt investors to also opt for the safety bullion cushion.
- **Central banks accumulate gold for several reasons:**
  - **Monetary Stability:** Gold provides a store of value and is often used as a safeguard against economic uncertainty.
  - **Currency Support:** Gold reserves enhance a nation's currency credibility, as it is seen as a backing for the currency's value.
  - **Investment Diversification:** Holding gold diversifies a central bank's assets, reducing risk in their investment portfolios.
  - **International Trade and Payments:** Gold reserves facilitate international trade and payments, serving as a universally accepted form of currency.
  - Countries with significant gold reserves include the **United States, Germany, Italy, and France.**

## PRADHAN MANTRI MUDRA YOJANA

> *Recently, the Mudra loan limit was raised to Rs 20 lakh in accordance with the budget announcement.*

### About:

- **Overview:**
  - **MUDRA** stands for **Micro Units Development & Refinance Agency Ltd** and was launched on **April 8, 2015**, as part of the **Pradhan Mantri Mudra Yojana (PMMY)** to promote financial inclusiveness for marginalized and underserved groups, primarily targeting **non-corporate, non-farm small and micro enterprises**.
  - The program aims to provide easy access to credit, fostering entrepreneurship and boosting small businesses across India.
- **Loan Limit Increase:**
  - In the **Union Budget 2024-25**, the loan limit under **MUDRA** was **raised to ₹20 lakh**, up from the previous cap of 10 lakh, effective from **October 24, 2024**.
  - This increase expands financial support for small enterprises and further encourages entrepreneurship.
  - Loans under the **new limit** are covered by the **Credit Guarantee Fund for Micro Units (CGFMU)**, enhancing the government's commitment to providing a **safety net** for micro enterprises by reducing the risk of defaults.
- **Objectives of MUDRA:**
  - **Empowering Entrepreneurs**: The primary goal of **MUDRA** is to foster young Indian entrepreneurial talent by addressing existing gaps in the **economic ecosystem** and promoting financial access for small enterprises.

- **Promoting Financial Inclusiveness**: By providing loans to **marginalized groups**, MUDRA supports the government's vision of **inclusive economic growth**.
- **Loan Categories:** MUDRA offers loans under four distinct categories based on the scale of the business:
  - **Shishu:** Loans up to ₹50,000, designed for new and small-scale ventures starting with minimal capital.
  - **Kishore:** Loans **above ₹50,000** and up to **₹5 lakh**, aimed at businesses that have begun operations but need additional support for growth.
  - **Tarun:** Loans **above ₹5 lakh** and up to **₹10 lakh**, targeted at businesses that have reached a certain scale and require more substantial funding for expansion.
  - **Tarun Plus:** Loans **between ₹10 lakh** and **₹20 lakh**, supporting more established micro enterprises seeking significant financial backing to scale up operations.

## ASSET RECOVERY INTERAGENCY NETWORK-ASIA PACIFIC (ARIN-AP)

*Recently, India has become a member of the Steering Committee of the Asset Recovery Interagency Network-Asia Pacific (ARIN-AP).*

### About: ARIN-AP

- **Overview:**
  - **ARIN-AP (Asia-Pacific Asset Recovery Inter-Agency Network)** is a prominent multi-agency network dedicated to combating crime proceeds across the Asia-Pacific region.
  - Established to foster **cross-border collaboration**, ARIN-AP focuses on **asset tracing, freezing, and confiscation** to tackle the illicit profits of criminal activities.
- **Key Objectives:**
  - **Effectiveness in Crime Asset Recovery:** The network's primary aim is to **enhance the effectiveness** of its members in depriving criminals of their illicit earnings.
    - This is achieved by creating a **multi-agency framework** where professionals work together to combat crime proceeds.
  - **Network of Experts:** ARIN-AP positions itself as a **central hub** for professionals engaged in the recovery of illicit assets, facilitating knowledge exchange and cooperative action.
- **Membership and Structure:**
  - **Members and Observers:** ARIN-AP comprises **28 member jurisdictions** and **nine observers**, forming an integral part of the larger **CARIN (Camden Asset Recovery Inter-Agency Network)**, which includes over 100 jurisdictions globally.
  - **Informal Framework:** While ARIN-AP operates informally, it provides a **robust framework** for international cooperation on asset recovery and criminal investigation.

- **Operational Mechanism:**
  - **Contact Points:** ARIN-AP operates through a network of **designated contact points** across its member jurisdictions.
    - This setup enables seamless **communication** and **intelligence exchange** among the various agencies involved.
  - **Cross-Border Collaboration:** By leveraging the broader CARIN Network, agencies can share information on individuals, assets, and companies involved in criminal activities, often expediting the identification and recovery process of illicit financial assets across borders.
- **India's Role:**
  - **India's Nodal Agency:** The **Directorate of Enforcement (ED)** serves as the **nodal agency** for India within the ARIN-AP framework.
  - ED's role is crucial in coordinating and implementing asset recovery efforts under this network.
- **Benefits of the Network:**
  - **Efficient Asset Tracing:** Law enforcement agencies in both ARIN-AP and CARIN jurisdictions benefit from the network's resources in **tracing assets** related to criminal activities, including both **movable** and **immovable** assets.
  - **Speedy Information Exchange:** Through informal channels, the network facilitates **faster information exchange**, which helps agencies quickly identify and recover criminal proceeds, enhancing the effectiveness of asset recovery operations.

## INDIAN FIRMS ON U.S. BLACKLIST

*Recently, the United States imposed sanctions on 19 Indian companies for supplying dual-use items to Russia.*

### Background:

- **Introduction of Executive Order (E.O. 14024):**
  - Enacted in **April 2021** by U.S. President Joe Biden, the executive order aimed to counter "harmful foreign activities" by Russia.
  - It authorizes sanctions on entities and individuals globally who provide direct or indirect support to Russia.
- **Indian Companies Sanctioned:**
  - On **October 30, 2023**, the U.S. Department of Treasury invoked E.O. 14024 to sanction **19 Indian entities**, accusing them of:
    - Supplying "dual-use" technologies (civilian technologies that can be adapted for military purposes) to Russia.
    - Engaging in business deals with sanctioned Russian entities.
  - The affected companies are based in **Delhi, Uttar Pradesh, Bengaluru, and Hyderabad** and are reputable players in technological manufacturing, some even with **government contracts.**

- **Consequences of Sanctions:**
  - **Blacklisting:** These companies are now on the U.S. **Specially Designated Nationals (SDN)** list, restricting access to U.S. financial systems and markets.
  - **Asset Freezing:** Any assets or funds held in the U.S. are frozen.
  - **Travel Bans:** Owners and key personnel face travel restrictions.
  - **Economic Impact:** The sanctions may cost Indian companies **millions of dollars** in lost contracts and legal expenses.

## DUAL-USE TECHNOLOGY

- **Dual-Use Technology** refers to technology that can be used for both civilian and military purposes.
- These technologies are often developed for peaceful, everyday applications but can also be adapted for military or defense use.
- The term "dual-use" typically applies to items or technologies that have both beneficial and potentially harmful uses, depending on how they are applied.

*Examples of Dual-Use Technologies:*

- **Hypersonics:**
  - Hypersonic systems travel at speeds greater than five times the speed of sound. These technologies have civilian applications, such as low-cost satellite launches, and could also serve as a backup for satellite systems in case of failure.
  - However, their military potential includes the development of high-speed missiles or advanced defense systems.
- **Integrated Network Systems-of-Systems:**
  - This technology allows for the seamless integration of various mission systems, providing governments with a networked, secure, and resilient platform for command, control, and communication.
  - While this has critical civilian uses, such as improving telecommunications infrastructure, it also has vital military applications in defense coordination and intelligence sharing.
- **Microelectronics:** Microelectronics are foundational to the development of personal computers, cell phones, and other consumer electronics, but they are also crucial for military systems.
  - Military defense equipment, such as radar systems, missiles, and communication tools, all rely heavily on microelectronics.
  - These dual-use components can play a critical role in both civilian technological advancements and military strategies.

**Measures that India can take:**

- **Non-Recognition of Unilateral Sanctions:**
  - India adheres only to **UN-imposed sanctions**, rejecting unilateral measures by individual countries.
  - However, India's economic and strategic ties with the U.S. necessitate a pragmatic approach to minimize friction.
- **Sensitization of Indian Companies:**
  - Indian government agencies are actively **educating businesses** about the risks associated with U.S. sanctions.
  - This includes advising companies on compliance with international trade regulations and avoiding transactions with **high-risk entities.**
- **Sanction-Proof Mechanisms:**
  - India can explore structural adjustments to shield companies from the impact of sanctions:
    - *Payment Mechanisms:* Establishing banking channels for **payments in national currencies** (like the Indian Rupee and Russian Ruble).
    - *Alternate Financial Systems:* Utilizing platforms like **Russia's SPFS** (System for Transfer of Financial Messages) as an alternative to SWIFT.
  - These measures have already been employed for sectors like **Russian oil procurement** and **diamond processing units.**
- **Strengthen Domestic Frameworks:**
  - Enhance domestic legal and regulatory frameworks to ensure companies operate within international norms, reducing exposure to sanctions.
  - Encourage the development of indigenous alternatives to dual-use technologies to reduce dependency on foreign suppliers.
- **Evaluate Cost-Benefit Calculus:**
  - Rejecting U.S. sanctions outright may strain bilateral ties. However, accepting these decisions could compromise India's strategic autonomy.
  - The government must weigh the economic costs against the benefits of maintaining a strong India-U.S. partnership.
- **Diplomatic Engagement:**
  - Pursue active dialogue with U.S. counterparts to resolve disputes and secure exemptions for Indian entities in cases where sanctions adversely impact mutual interests.

## EXPORT CONTROLS PROVISIONS RELATED TO DUAL-USE TECHNOLOGIES

- **Wassenaar Arrangement (WA):**
  - **Purpose:** The Wassenaar Arrangement aims to enhance regional and international security by promoting transparency and greater responsibility in the transfer of conventional arms and dual-use technologies.
  - **India's Membership:** India joined the Wassenaar Arrangement in 2017 as its 42nd member.

- **Nuclear Suppliers Group (NSG):**
  - **Purpose:** The NSG is a group of countries that regulate the supply of nuclear fuel and technologies to prevent the proliferation of nuclear weapons.
  - **India's Status:** India is not a member of the NSG due to its non-signatory status to the Nuclear Non-Proliferation Treaty (NPT).
    - However, India voluntarily adheres to non-proliferation principles and maintains responsible export practices regarding nuclear technologies.
- **Australia Group:**
  - **Purpose:** The Australia Group is an informal forum of countries that harmonize export controls to ensure that the transfer of goods and technologies does not contribute to the development of chemical or biological weapons.
  - **India's Membership:** India became a member of the Australia Group in 2018.
- **Missile Technology Control Regime (MTCR):**
  - **Purpose:** The MTCR is a voluntary partnership among 35 countries that seeks to prevent the proliferation of missile and unmanned aerial vehicle technologies capable of carrying payloads greater than 500 kg over distances exceeding 300 km.
  - **India's Membership:** India was inducted into the MTCR in 2016.
- **Chemical Weapons Convention (CWC) and Biological and Toxin Weapons Convention (BWC):**
  - **India's Commitment:** India is a signatory to both the Chemical Weapons Convention (CWC) and the Biological and Toxin Weapons Convention (BWC), which focus on the disarmament and non-proliferation of chemical and biological weapons globally.

## CONSOLIDATION OF REGIONAL RURAL BANKS IN INDIA

*The Union government recently proposed merging regional rural banks under the 'One State-One RRB' strategy to streamline operations and enhance efficiency.*

### About:
- **Conceptualization and Need:**
  - RRBs were conceived in **1975** to address the credit needs of India's vast rural population, which previously relied heavily on informal lenders charging exorbitant interest rates.
  - Their creation aimed at bridging the gap between **cooperative societies** (which had limited reach) and **commercial banks** (which were urban-centric).

- **Legal Framework:**
  - The establishment of RRBs was formalized through the **Regional Rural Banks Act, 1976**, providing a structured framework for their operation and defining their mandate.
  - The act empowered RRBs to operate in **notified districts** and cater to the **priority sector**, particularly agriculture and allied activities.
- **Ownership Model:**
  - RRBs were designed as a **joint venture** between the central and state governments and commercial banks.
  - The **50%-15%-35% shareholding structure** ensures a balance of accountability and resource sharing.
- **Operational Scope:** Unlike commercial banks, RRBs operate in limited geographies (primarily rural districts) and focus on underbanked segments like **small farmers, artisans, and laborers.**
- **Functions and Focus Areas:**
  - **Deposit Mobilization:**
    - RRBs encourage rural populations to save, fostering a **culture of financial discipline** and generating resources for lending.
    - The deposits primarily come from **rural and semi-urban areas**, contributing to rural liquidity.
  - **Credit Disbursal:**
    - Loans provided by RRBs cover both **productive purposes** (e.g., buying seeds, farm machinery) and **non-productive needs** (e.g., housing).
    - **Priority sector lending** (agriculture, small-scale industries) is the core focus, aligning with national economic goals.
  - **Social and Economic Role:**
    - RRBs have been pivotal in **financial inclusion** by bringing banking services to remote areas.
    - They facilitate Direct Benefit Transfers (DBTs) under government schemes like **PM-KISAN** and **MGNREGA payments.**

### AMALGAMATION OF RRBS: EVOLUTION AND RATIONALE

- **First Phase (2005):**
  - **Sponsor Bank-Wise Amalgamation:** Initiated after the **Dr. V. S. Vyas Committee Report**, this phase aimed to:
    - Consolidate RRBs under the same sponsor bank within a state.
    - Enhance operational efficiency and financial viability.
- **Second Phase (2012): Cross-Sponsor Bank Amalgamation**
  - This phase merged RRBs across different sponsor banks within a state, ensuring a unified approach to rural credit delivery.
  - It reduced redundancies and improved resource utilization.

- **Third Phase (2019–2020): One State, One RRB**
  - Smaller states saw the creation of a single RRB, while larger states underwent **reduction in RRB numbers.**
  - This phase focused on enhancing service delivery, credit exposure, and overall customer reach.

*Current Status (as of March 2023)*
- **Number of RRBs:**
  - Initially, there were **196 RRBs** (1976). After amalgamation, the number was reduced to **43** by 2023.
  - The consolidation process ensured fewer but stronger entities with better infrastructure and larger operational reach.
- **Branch Network:**
  - RRBs have a **vast network** of **21,999 branches**, covering **708 notified districts** across **26 states** and **3 Union Territories (UTs)**.
  - **Notable exclusions: Sikkim, Delhi, and Goa**, which lack RRBs due to specific regional banking dynamics.

## Benefits of Consolidation:

- **Operational Efficiency:** By reducing the number of RRBs, the government aims to lower administrative costs and improve the efficiency of banking operations, making the banks more financially sustainable.
- **Enhanced Capital Base:** Larger, consolidated RRBs will have a stronger capital base, enabling them to better serve the financial needs of rural communities.
- **Technological Advancements:** Consolidation will facilitate the adoption of modern banking technologies, which are essential for competing with private sector banks and small finance banks (SFBs).
- **Reduced Dependence on Government Infusions:** With improved financial stability, RRBs will be less reliant on government capital infusions, which have been substantial in recent years.
- **Broader Reach:** The consolidation will allow RRBs to expand their reach and impact, providing better financial services to rural populations.
  - It is expected to enhance the ability of RRBs to support small-scale farmers, agricultural labourers, and rural businesses, thereby contributing to the overall development of the rural economy.

## Challenges:

- **Limited Operational Scope:**
  - RRBs are confined to specific districts as part of their mandate, which restricts their ability to explore and capitalize on high-potential rural markets in neighboring or emerging areas.
  - This narrow focus limits the diversification of their portfolio and prevents them from achieving economies of scale.

- **High Non-Performing Assets (NPAs):**
  - A significant proportion of their lending is directed toward rural projects that are often exposed to high risks, such as those dependent on unpredictable weather conditions.
  - Natural calamities like droughts and floods frequently result in loan defaults, contributing to elevated NPA levels, which affect their financial health and sustainability.
- **Technological Gaps:**
  - Many RRB branches struggle with inadequate infrastructure and lack proper connectivity, which impedes the adoption of modern banking technologies like digital payments, mobile banking, and core banking systems (CBS).
  - This limits their competitiveness in the banking sector and affects customer satisfaction.
- **Dependence on Sponsor Banks:**
  - RRBs are heavily reliant on their sponsor banks for essential resources, including employee training, technological upgrades, and additional funding.
  - This dependence curtails their autonomy, leaving them less agile in responding to market demands and evolving challenges.
- **Underutilization of Potential:**
  - A lack of awareness among rural populations about the range of services offered by RRBs, such as savings accounts, agricultural loans, and microcredit schemes, hinders their ability to mobilize deposits effectively.
  - As a result, their role in deepening financial inclusion remains underwhelming, despite their mandate to serve rural communities.

## Way Forward:

- **Tackle High NPAs:**
  - Implement better risk assessment mechanisms to evaluate the viability of rural projects before disbursing loans.
  - Develop innovative insurance products for farmers to mitigate risks associated with crop failure or natural disasters, ensuring timely loan recovery.
- **Promote Technological Integration:**
  - Invest in improving IT infrastructure and connectivity across all RRB branches to enable the adoption of core banking systems and digital banking solutions.
  - Provide training programs for staff to build capacity in operating advanced banking technologies.
- **Enhance Autonomy and Governance:**
  - Reduce dependency on sponsor banks by providing RRBs with greater financial and operational independence.
  - Reform governance structures to ensure professional management and timely decision-making, minimizing bureaucratic delays.

## HOKERSAR WETLAND

*Recently, the Hokersar wetland in Kashmir Valley has experienced water shortages due to insufficient rainfall, affecting the arrival of migratory birds.*

### About:

- **Geography:**
  - **Location:** The **largest bird reserve** in the **Kashmir Valley**, situated in the **Jhelum River basin.**
  - **Hydrological Sources:** The reserve is fed by two perennial inlet streams:
    - *Doodhganaga* from the east.
    - *Sukhnag Nallah* from the west.



- **Significance:**
  - The reserve is a **Ramsar site**, highlighting its importance as a wetland of international significance.
  - Often referred to as the "**International Bird Airport**" of Kashmir, the reserve plays a vital role in providing a critical habitat for **migratory birds.**
- **Fauna:**
  - The reserve serves as a **migration pathway** for over **68 species of waterfowl**, including:
    - Large Egret
    - Great Crested Grebe
    - Little Cormorant
  - These birds migrate from regions such as **Siberia**, **China**, **Central Asia**, and **Northern Europe.**
- **Flora:**
  - The wetland is the only site with the **remaining reedbeds** of Kashmir, making it a critical ecosystem.

- **Aquatic Flora** includes species like:
  - Typha
  - Phragmites
  - Nymphoides
- These species form intricate plant communities across varying water zones, from **shallow** to **open water areas.**
- **Challenges Facing the Wetland:**
  - **Deficient Rainfall:** This is a primary concern, leading to reduced water levels and negatively impacting bird migration patterns.
  - **Illegal Sand Mining:** Sand mining disrupts the natural landscape and interferes with the wetland's hydrological functions, affecting water flow.
  - **Encroachment:** Human activities, including illegal construction and land use, have encroached upon the wetland area, reducing its effective size and threatening its biodiversity.

## EXEMPTION FROM DUAL ECO-CLEARANCE

*Recently, the Environment Ministry exempted specific industries from requiring dual approvals for Environmental Clearance (EC) and Consent To Establish (CTE), aiming to minimize bureaucratic obstacles and enhance ease of doing business.*

### Background:

- Historically, industries in India were required to obtain two separate approvals before beginning operations:
  - **Environmental Clearance (EC):** Issued by the Ministry of Environment, Forest and Climate Change (MoEFCC), this clearance assesses the environmental impact of an industrial project, ensuring it complies with environmental regulations.
  - **Consent to Establish (CTE):** Granted by the State Pollution Control Boards (SPCBs), this consent is required before setting up any industry that could potentially cause pollution, ensuring that the proposed location and processes meet environmental safety standards.
  - However, the dual approval system often led to delays, multiple layers of bureaucratic approval, and increased compliance costs for industries, which could slow down project initiation and make the business environment less attractive.

## New Exemption:

- In response to address the challenges, the **Ministry of Environment, Forest and Climate Change** has introduced a significant reform by exempting **39 categories of non-polluting industries** from having to obtain both EC and CTE.
- These industries are classified as the **"White Category"** industries, meaning they are considered to have minimal or no adverse impact on the environment.
- **Examples of Exempted Industries:**
  - **Solar cell and module manufacturing:** These industries contribute to the renewable energy sector, which is considered environmentally beneficial, and have a minimal environmental footprint.
  - **Wind and hydel power units:** Both of these forms of renewable energy generation have relatively low environmental risks, especially when compared to traditional energy sources.
  - **Leather cutting and stitching:** Unlike full-scale leather processing, these activities are less likely to create significant pollution or waste.
- **Implications:** These exempt industries will now only need to obtain **Environmental Clearance (EC)**, which streamlines the approval process and eliminates redundancy in the regulatory framework.

## Categorization of Industries:

- To facilitate this reform, industries are categorized into four broad groups based on their environmental impact.
- This helps regulators streamline the approval process while ensuring that industries with higher environmental risks are subject to stricter scrutiny:
  - **Red Category Industries:** These industries have a significant potential to cause pollution due to the nature of their operations, such as chemical plants, heavy industries, and power plants.
    - They are subject to the strictest regulatory measures.
  - **Orange Category Industries:** These industries are less polluting than red category industries but still pose some environmental risks. They are subject to moderate levels of scrutiny and regulations.
  - **Green Category Industries:** These industries have minimal environmental impact, but they still need to comply with basic environmental regulations.
  - **White Category Industries:** These industries have negligible or no adverse environmental impact.
    - Examples include solar power generation, food processing, and certain types of light manufacturing.
    - These industries are considered non-polluting and have been exempted from needing both EC and CTE, provided they still adhere to other environmental regulations.

## Benefits of Exemption:

- **Reduced Compliance Burden:**
  - The elimination of dual approvals reduces the administrative burden on industries, allowing businesses to focus more on project development and operations.
  - It streamlines the approval process, reducing the number of regulatory steps needed for approval.
- **Accelerated Project Implementation:**
  - The reform is expected to expedite project timelines, enabling quicker project start-ups, which can lead to faster growth in sectors like renewable energy, manufacturing, and infrastructure.
  - With fewer regulatory hurdles, companies are likely to experience shorter waiting times for project approval, facilitating faster deployment of new businesses and technologies.
- **Improved Ease of Doing Business:**
  - The government's broader goal of improving India's business climate aligns with these reforms. By simplifying regulatory processes, the government hopes to encourage investment in green and non-polluting industries.
  - The reduction in red tape makes it easier for businesses to establish and expand operations, contributing to India's goal of improving its position on global ease of doing business indices.
- **Encouragement for Green Industries:** By recognizing non-polluting industries as critical for sustainable development, this reform encourages businesses to adopt cleaner, greener practices that contribute to long-term environmental goals, such as reducing carbon footprints and supporting renewable energy growth.
- **Boosting Investment:** Streamlined approval processes and a more transparent regulatory environment can attract both domestic and international investments, particularly in the renewable energy, infrastructure, and manufacturing sectors.

## TAMOR PINGLA TIGER RESERVE

*Recently, Guru Ghasidas-Tamor Pingla in Chhattisgarh was designated as the 56th tiger reserve in the country.*

## About:

- **Geographical Location:** The **GGTP Tiger Reserve** is strategically located in the **Chota Nagpur Plateau** and partly in the **Baghelkhand Plateau**, which are known for their varied landscapes and rich ecological features.
- **Area:** The reserve spans a **core habitat** of **2,049.2 square kilometers**, which includes:
  - Guru Ghasidas National Park.
  - **Tamor Pingla Wildlife Sanctuary:** The **buffer zone** extends over **780.15 square kilometers**, acting as a transition area that helps protect the core zone from human encroachment.

- **Rank:** It stands as the **third-largest tiger reserve** in India, after the **Nagarjunasagar-Srisailam Tiger Reserve** (Andhra Pradesh) and **Manas Tiger Reserve** (Assam).
- **Landscape Approach to Conservation:**
  - The GGTP Tiger Reserve employs a **landscape approach** to conservation, focusing on creating **interconnected habitats** that enable species to move across regions and maintain genetic diversity.
  - This approach also aims to enhance **ecological connectivity** with adjacent tiger reserves, including:
    - Sanjay Dubri Tiger Reserve (Madhya Pradesh)
    - Bandhavgarh Tiger Reserve (Madhya Pradesh)
    - Palamau Tiger Reserve (Jharkhand)
  - The landscape approach aligns with India's **National Wildlife Action Plan (2017-2031)**, which emphasizes habitat preservation, sustainable conservation practices, and enhancing connectivity between various protected areas.
- **Rivers and Water Resources:** The GGTP Tiger Reserve serves as the origin for significant rivers such as: Hasdeo Gopad River and Baranga River.
- **Terrain:**
  - **Dense forests:** These provide crucial shelter and food sources for the tiger and other species.
  - **Streams and rivers:** These water sources support a variety of ecosystems and provide drinking water for the wildlife.
    - The varied landscape of the GGTP Tiger Reserve plays a pivotal role in supporting its **rich faunal diversity** and providing **critical habitats** for the **tiger**, making it a vital component of India's tiger conservation efforts.
- **Tiger Reserve Notification:**
  - As per the **Wildlife (Protection) Act, 1972**, which was later amended by the **Wildlife (Protection) Amendment Act, 2022**, the notification of tiger reserves in India is carried out by **State Governments** on the advice of the **National Tiger Conservation Authority (NTCA).**
  - The establishment of the GGTP Tiger Reserve falls under this framework, ensuring that the reserve is legally recognized and protected under national and international conservation guidelines.

### NATIONAL TIGER CONSERVATION AUTHORITY

- **Establishment and Legal Framework:**
  - The National Tiger Conservation Authority (NTCA) is a statutory body established under the Ministry of Environment, Forest, and Climate Change (MoEFCC).
  - It was created in 2006 under the Wildlife (Protection) Act, 1972, following growing concerns over the decline of tiger populations in India.
- **Objectives of NTCA:**
  - Providing Statutory Authority to Project Tiger

  - Fostering Accountability between Center and State
  - Providing Oversight by Parliament
  - Addressing Livelihood Interests of Local Communities
- **NTCA Composition:**
  - **Chairperson:** The Minister in charge of MoEFCC serves as the chairperson of the NTCA, providing leadership and strategic direction.
  - **Vice-Chairperson:** The Minister of State in MoEFCC serves as the vice-chairperson, assisting in the oversight and administrative functions.
  - **Members of Parliament:** Three members of Parliament are part of the NTCA, ensuring that the body remains connected to legislative priorities and maintains accountability.
  - **Secretary of MoEFCC:** The Secretary of the Ministry of Environment, Forest, and Climate Change plays a significant role in the operational and bureaucratic functioning of the NTCA.
  - **Other Members:** The NTCA also includes additional members appointed to represent different areas of expertise related to wildlife conservation, law enforcement, and sustainable development.

## BANDIPUR TIGER RESERVE

*Recently, the Karnataka Forest Department has enforced restrictions on the annual jathra (religious fair) of Beladakuppe Sri Mahadeshwaraswamy Temple, situated in the core area of Bandipur Tiger Reserve.*

### About:

- **Bandipur Tiger Reserve** is located in one of India's richest biodiversity areas, within the **Western Ghats Mountains Biogeography Zone.**
- It is surrounded by the **Mudumalai Tiger Reserve** (Tamil Nadu) to the south, **Wayanad Wildlife Sanctuary** (Kerala) to the southwest, and **Kabini Reservoir** (Karnataka) separates it from **Nagarahole Tiger Reserve.**
- **Biodiversity Significance:**
  - Recognized as one of the **Mega Biodiversity Areas** in India, it is home to a rich variety of flora and fauna, including the highest population of tigers in the country—around **724.**
  - The reserve also hosts the **largest population of Asian elephants.**
- **Establishment:**
  - The reserve was established in **1973** under **Project Tiger.**
  - In **1985,** the reserve was expanded by including adjacent areas from the **Venugopala Wildlife Park** and was renamed **Bandipur National Park.**

- **Location:**
  - The reserve is situated in the **Mysore** and **Chamarajanagar** districts of **Karnataka.**
  - It lies at the tri-junction of the states **Karnataka, Tamil Nadu,** and **Kerala.**
- **Biosphere Reserve:**
  - **Bandipur Tiger Reserve** is a part of the **Mysore Elephant Reserve** and is an integral component of **India's first biosphere reserve**, the **Nilgiri Biosphere Reserve**.
  - It forms a critical part of the landscape along with **Nagarahole**, **Mudumalai**, and **Wayanad**, which together host the highest tiger population and the largest population of Asian elephants.
- **Rivers and Highest Point:**
  - The reserve is bordered by the **Kabini river** in the north and the **Moyar river** in the south.
  - The **Nugu river** flows through the park.
  - The highest point in the park is **Himavad Gopalaswamy Betta**.
- **Other Tiger Reserves in Karnataka:** Bhadra Tiger Reserve, Nagarahole Tiger Reserve, Dandeli-Anshi Tiger Reserve and Biligiriranganatha Swamy Temple (BRT) Tiger Reserve

# TIGER RESERVES



**Recently Notified Tiger Reserves**
- Guru Ghasidas-Tamor Pingia Tiger Reserve - Chhattisgarh
- Dholpur-Karauli Tiger Reserve- Rajasthan
- Veerangana Durgavati Tiger Reserve- Madhya Pradesh

## CORPORATE AVERAGE FUEL EFFICIENCY (CAFE) NORMS

*Recently, the government identified non-compliance with the tightened CAFE norms by eight major car manufacturers for the fiscal year 2022-23, leading to proposed penalties.*

### About: CAFE Norms

- **Introduced By:**
  - The Bureau of Energy Efficiency (BEE) introduced the CAFE (Corporate Average Fuel Economy) norms in 2017, under the Energy Conservation Act, 2001.
  - The aim of the norms is to regulate the **fuel consumption** and **carbon emissions** of passenger vehicles in India, with a focus on reducing environmental damage caused by transportation.

- **Objective:**
  - The primary objective of the CAFÉ norms is to **reduce oil dependency** and mitigate **air pollution.**
  - This is in line with India's commitment to **sustainable development** and its efforts to tackle the growing challenges of **climate change.**
  - The goal is to encourage the adoption of more fuel-efficient vehicles, thereby reducing the consumption of fossil fuels and cutting down on harmful emissions.

- **Scope:**
  - The CAFE norms apply to all **passenger vehicles** in India, including those that are powered by **petrol, diesel, LPG, CNG,** and newer **hybrids** or **electric vehicles (EVs).**
  - These vehicles must weigh **under 3,500 kg,** and they are categorized based on their **fuel consumption** and **emission levels.**

- **Implementation:** The CAFE standards were introduced in **two phases** to allow manufacturers time to adjust and comply:
  - **Phase 1 (CAFE norms Stage I):** This initial set of **fuel consumption standards** came into effect in **2017-18,** marking the beginning of a regulatory push to improve fuel efficiency.
  - **Phase 2 (CAFE norms Stage II):** This stage introduced **stricter standards** and came into force in **2022-23,** further tightening the fuel consumption and carbon emission criteria.

- **Compliance Criteria for FY23:**
  - The **fuel consumption target** for vehicles was set at **≤ 4.78 litres per 100 km,** meaning that the average fuel usage per 100 km driven should not exceed 4.78 litres.
  - The **carbon emissions target** was set at **≤ 113 grams of CO2 per km,** which is a direct measure of the emissions that a vehicle releases into the atmosphere as it operates.

- **Penalties for Non-Compliance: CAFE norms Stage II,** which came into effect in **2022-23,** introduced **significant penalties** for automakers failing to comply with the set fuel consumption and carbon emission standards.

- These penalties can range from **₹25,000 to ₹50,000 per vehicle,** depending on the severity of the shortfall in meeting the standards.
  - *For example*, a shortfall of **0.2 litres per 100 km** could incur a penalty of **₹25,000,** while exceeding the prescribed limits could attract a fine of **₹50,000** per vehicle.
- Additionally, a **base penalty of ₹10 lakh** is imposed for non-compliance, regardless of the scale of the violation.

- **Significance of CAFE Norms:**
  - **CAFE norms** play a crucial role in incentivizing manufacturers to produce vehicles that are more environmentally friendly, such as **electric vehicles (EVs), hybrids,** and **CNG-powered vehicles.**
    - These types of vehicles are promoted due to their lower carbon footprints compared to traditional **fossil fuel-powered** cars.
  - The strict implementation of these norms aligns with India's **long-term environmental goals,** such as reducing greenhouse gas emissions and promoting **sustainable transportation.**
    - By setting these standards, India is taking significant steps to meet its international climate commitments, including its pledges under the **Paris Agreement.**
  - The norms are a key part of the broader push for **clean mobility** in India, contributing to a reduction in pollution, especially in urban areas, and decreasing dependence on imported crude oil.

## RAJYA VISHISHT YOJANA FOR STUBBLE BURNING

*Recently, the Haryana government introduced the Rajya Vishisht Yojana, aiming to minimize stubble burning and its associated environmental impacts.*

### About:

- **Subsidies and Resources:**
  - Farmers are provided **subsidized equipment** to manage crop residues sustainably.
  - **Examples include:**
    - **Happy Seeders**: Machines that allow sowing without removing stubble.
    - **Super SMS Systems**: Attachments that manage straw and improve mulching during harvesting.
  - These measures help ensure eco-friendly disposal methods and reduce reliance on stubble burning.

- **Penalties and Rewards:**
  - **Strict penalties** are imposed on individuals who violate stubble-burning regulations.
  - At the same time, **incentives** are awarded to farmers who comply with eco-friendly residue management practices.

- This balanced approach aims to enforce compliance while supporting and motivating farmers.
- **Environmental Goals:**
  - The scheme is aligned with India's broader **national environmental goals** and commitments.
  - **Objectives include:**
    - **Promoting sustainable agriculture** by reducing reliance on harmful practices like stubble burning.
    - **Improving air quality** by mitigating pollution caused by residue combustion.
    - **Protecting public health** by addressing respiratory issues linked to air pollution.
- **Additional Features**
  - **Incentives for Panchayats**:
    - **Red zone panchayats** (areas most affected by stubble burning) are incentivized with **₹1 lakh** for meeting the target of reduced stubble burning.
    - **Yellow zone panchayats** (moderately affected areas) receive an incentive of **₹50,000** for meeting the target.
  - **Incentives for Farmers:**
    - Farmers who engage in **paddy residue management** are given an incentive of **₹1,000 per acre** to encourage adoption of sustainable practices.

## Other related Measures for Stubble Burning:

- **PUSA Decomposers:**
  - The **PUSA Decomposers** are a set of biological formulations in the form of capsules that contain fungi strains designed to rapidly decompose paddy straw.
  - **Benefits:**
    - **Accelerates decomposition** of rice straw, reducing the need for burning.
    - **Eco-friendly** approach to managing crop residue while enriching soil organic content.
    - **Cost-effective** as it reduces the need for traditional residue disposal methods.
- **Palletisation**
  - **Palletisation** involves converting paddy straw into compact pellets after drying. These pellets can then be used as an alternative fuel source.
  - **Working Mechanism:**
    - The dried paddy straw is compressed into **pellets**, making it a more **efficient and manageable fuel** option.
    - When mixed with **coal**, these pellets can be used in **thermal power plants** and industrial boilers.
  - **Benefits:**
    - **Reduces coal consumption** by replacing part of the coal with paddy straw pellets.
    - **Decreases carbon emissions** by using a renewable and less polluting energy source.
    - **Reduces waste** from agricultural residue, promoting circular economy principles.

- **Government Efforts for Crop Residue Management:**
  - The **Ministry of Environment, Forests, and Climate Change** has prioritized **crop residue management** to reduce **air pollution** caused by stubble burning.
  - The **Commission for Air Quality Management (CAQM)** has developed a framework aimed at **preventing and controlling stubble burning** in key states and regions.
  - **Revised Action Plans:**
    - Action plans for **Punjab**, **Haryana**, and **NCR districts of UP** have been revised, drawing from lessons learned in the 2021-2023 seasons.
    - These updated plans focus on **in-situ and ex-situ residue management**, **awareness campaigns (IEC activities)**, and **enforcement mechanisms** to ensure effective implementation.

## UPDATED NATIONAL BIODIVERSITY STRATEGY AND ACTION PLAN (NBSAP)

*Recently, India unveiled the updated National Biodiversity Strategy and Action Plan (NBSAP) 2024-2030 at COP 16 of the Convention on Biological Diversity (CBD).*

### Major Highlights of NBSAP:

- **Background and Evolution:**
  - The **National Biodiversity Action Plan (NBAP)** was first introduced in **1999** as part of India's commitment to the **Convention on Biological Diversity (CBD)**.
  - **Objective:** To preserve the country's rich biodiversity and make decisions that align with global biodiversity conservation strategies.
  - In **2014**, the NBAP was updated to align with the **Aichi Biodiversity Targets** set by the **CBD**, which focused on protecting biodiversity through a structured global effort.
  - The **NBSAP 2024-30** builds on these foundational plans and aims to further refine and implement India's strategies to tackle biodiversity loss, aligning it with the **Kunming-Montreal Global Biodiversity Framework (KMGBF)** adopted in **2022**.
  - This framework sets a global deadline to halt and reverse biodiversity loss by **2030**, pushing nations to act quickly and comprehensively.
- **Alignment with Kunming-Montreal Global Biodiversity Framework (KMGBF):**
  - The **KMGBF**, adopted in **2022** at the **15th Conference of the Parties** to the **Convention on Biological Diversity (COP 15)**, sets ambitious targets aimed at halting the ongoing loss of biodiversity.
  - **The framework has a particular focus on:**
    - **Preserving Ecosystems and Species**: Ensuring the protection and restoration of ecosystems to maintain biodiversity.

- **Sustainable Resource Use**: Promoting sustainable use of natural resources and reducing harmful practices.
- **Financial Mobilization**: Securing adequate resources for biodiversity conservation, particularly through innovative financing mechanisms.
- The **NBSAP 2024-30** is designed to directly contribute to the global goals of the **KMGBF**, ensuring that India's efforts in biodiversity conservation are synchronized with international initiatives.
- **23 National Biodiversity Targets:** The NBSAP 2024-30 sets 23 specific national biodiversity targets, organized into three broad themes:
  - **Reducing Threats to Biodiversity:**
    - This theme focuses on combating habitat destruction, climate change, invasive species, pollution, and over-exploitation of natural resources.
    - It includes efforts to protect key ecosystems like forests, wetlands, and marine areas, which serve as vital habitats for wildlife.
  - **Ensuring Sustainable Use of Resources:**
    - The goal here is to ensure that natural resources are used in a manner that meets current needs without compromising future generations' ability to meet their needs.
    - This includes promoting sustainable agriculture, forestry, fisheries, and tourism practices.
  - **Enhancing Tools for Implementation:**
    - Strengthening the regulatory framework for biodiversity management and establishing more efficient systems for monitoring, reporting, and verifying biodiversity conservation efforts.
    - This includes using modern technologies and data systems to track biodiversity indicators.
- **Implementation Structure:** The implementation framework for NBSAP 2024-30 is hierarchical, with the MoEFCC (Ministry of Environment, Forest and Climate Change) at the top level coordinating national efforts. The structure includes multiple levels of governance and implementation:
  - **National Level:**
    - The **MoEFCC** serves as the central agency overseeing the implementation of the NBSAP.
    - The **National Biodiversity Authority (NBA)**, which is responsible for policy advice and regulatory measures related to biodiversity.
    - **22 other ministries** and departments also play a role in ensuring biodiversity is integrated into their respective sectors.
  - **State and Union Territory Levels:**
    - **State Biodiversity Boards** and **Union Territory Biodiversity Councils** act as regional bodies responsible for implementing biodiversity strategies at the state and local levels.

- They coordinate efforts to protect local ecosystems and species, and ensure alignment with the national framework.
  - **Local Level:**
    - **Biodiversity Management Committees (BMCs)** at the grassroots level ensure community participation in biodiversity conservation.
    - They focus on local issues like sustainable land use, conservation of species, and community-based management of natural resources.
- **Financial Mechanisms:**
  - The NBSAP 2024-30 emphasizes the **mobilization of financial resources** for biodiversity conservation.
  - India is leading the way in implementing **BIOFIN (Biodiversity Finance Initiative)**, a global partnership launched by **UNDP** and the **European Commission**.
  - BIOFIN supports countries in improving financial management for biodiversity and ecosystems.
  - **Key strategies for resource mobilization include:**
    - **Private Sector Involvement:** Encouraging private businesses, industries, and entrepreneurs to invest in green and sustainable projects that benefit biodiversity.
    - **Green Bonds** and **Green Funds** to support eco-friendly projects.
    - **Payment for Ecosystem Services (PES)**, where individuals or corporations pay for services provided by ecosystems like clean water, carbon sequestration, and pollination.

## CBD & KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK (GBF)

- The **Convention on Biological Diversity (CBD)** is a legally binding international treaty under the **United Nations Environment Programme (UNEP)**, established in **1993**.
- It represents a critical framework for global biodiversity conservation and sustainable development, with three key objectives:
  - **Conservation of Biological Diversity**: The CBD aims to protect and preserve the variety of life on Earth, including ecosystems, species, and genetic diversity.
  - **Sustainable Use of Biological Diversity**: This objective focuses on ensuring that biodiversity components are utilized in ways that do not harm the integrity or functioning of ecosystems.
    - It supports practices that allow current and future generations to benefit from biodiversity without depleting it.
  - **Fair and Equitable Sharing of Benefits**: The CBD emphasizes that the benefits derived from the use of biological resources (such as genetic resources or medicinal plants) should be shared fairly.

- This involves recognizing the rights of local communities, especially indigenous peoples, in the stewardship and utilization of biodiversity.

*Kunming-Montreal Global Biodiversity Framework (GBF)*

- The **Kunming-Montreal Global Biodiversity Framework (GBF)** was adopted in **2022** at the **COP15** of the **Convention on Biological Diversity**.
- The framework, often referred to as a "Paris Agreement for Nature," is designed to set international biodiversity targets for the next decade (2022–2030) and is a crucial step in reversing biodiversity loss globally.
- **Key Features of the Kunming-Montreal GBF:**
  - **Global Goals and Targets:** The GBF contains **4 overarching global goals** to be achieved by **2030**, with **23 specific targets** that focus on measurable biodiversity outcomes.
  - **Target 3 – "30X30":** One of the most notable and ambitious targets of the GBF is **Target 3**, commonly referred to as **"30X30"**. This target has the following main objectives:
    - *Protect 30% of land and 30% of coastal and marine areas by 2030:* This aims to safeguard a substantial portion of the planet's ecosystems by 2030, ensuring that significant areas of land, oceans, and coastal ecosystems are preserved and protected from degradation.
    - *Restore 30% of degraded lands and waters by 2030:* In addition to protecting natural areas, the framework also focuses on the restoration of ecosystems that have been degraded, including lands and waters that have suffered damage due to human activity. This is an increase from the earlier target of restoring 20%.
    - *Prevent the destruction of intact ecosystems:* The GBF commits to minimizing the destruction of critical habitats, particularly those with high levels of biodiversity, with an aim to bring these losses as close to zero as possible by 2030.
  - **Invasive Species:** Another key target under the GBF is the commitment to **halve the introduction of invasive species** by 2030.
    - Invasive species are one of the leading causes of biodiversity loss globally, and this target seeks to reduce their spread and impact on native ecosystems.
  - **Reduction of Harmful Subsidies:** The framework also calls for a $500 billion/year reduction in harmful subsidies, particularly those that encourage the over-exploitation of natural resources and contribute to environmental degradation.

## DURGESH ARANYA ZOOLOGICAL PARK

*Recently, Himachal Pradesh's Durgesh Aranya Zoological Park in Kangra's Dehra constituency is set to become India's first Indian Green Building Council (IGBC)-certified zoo for sustainable infrastructure.*

### About:

- **Location:** Situated in the Bankhandi area, within Kangra's Dehra assembly constituency, Himachal Pradesh.
- **Unique Attractions:**
  - The wildlife park will feature **34 enclosures** as part of its **Van Vaibhav Path** and **Biodiversity Court**.
  - It will house **73 species**, including iconic animals such as: Asiatic lions, Crocodiles, Gharials and a variety of indigenous birds.
- **Sustainability Initiatives:**
  - The park is being developed with a budget of ₹**619 crore** and focuses on **eco-friendly design**.
  - It will be the **first zoo** in the region to achieve the **Indian Green Building Council (IGBC) certification**, emphasizing **sustainable and green practices**.
- **Impact on Tourism and Employment:**
  - The park is expected to **boost tourism** in the region, helping to reinforce **Kangra's status as Himachal Pradesh's "Tourism Capital."**
  - It aims to **create jobs** for local communities and promote **eco-tourism**, making it a key economic and cultural asset for the region.

### CENTRAL ZOO AUTHORITY (CZA)

- **Overview:**
  - The **CZA** is a statutory body under the **Ministry of Environment, Forest and Climate Change**, established in **1992** as per the **Wildlife (Protection) Act, 1972**.
  - It oversees the management of zoos across India, ensuring their compliance with established standards and promoting ex-situ conservation of wildlife.
- **Objectives of the CZA:**
  - **Regulation of Zoos:** Ensures that zoos operate in accordance with prescribed norms for animal welfare and management.
  - **Wildlife Conservation:** Promotes **ex-situ conservation** by maintaining healthy populations of threatened species in captivity for eventual reintroduction into the wild.
  - **Animal Welfare:** Ensures the humane treatment of animals in zoos and prevents their exploitation.
  - **Awareness and Education:** Educates the public about wildlife conservation and the role of zoos in safeguarding biodiversity.
- **Headquarters:** New Delhi

## INDIAN GREEN BUILDING COUNCIL (IGBC)

- **Established:** Formed in 2001 as part of the Confederation of Indian Industry (CII).
- **Role:** The IGBC is India's leading body for **green building certification**, playing a key role in promoting **sustainable architecture** across the country.
- **Services:**
  - Provides **certification** for eco-friendly buildings.
  - Develops **rating systems** to evaluate the sustainability of buildings.
  - Conducts **training programs** to educate the industry on **green construction practices**.
- **Global Representation:**
  - IGBC is one of **five countries** on the **World Green Building Council (WGBC)** board, representing India on global platforms for sustainability.
  - It actively engages in **international discussions** on sustainability, including events like the **COP (Conference of Parties)**.
- **Rating Criteria:** Projects are evaluated based on various categories, including: Energy and water efficiency, Hygiene, Innovation and Sustainable practices.
- **Headquarters:** Hyderabad, India.

## WORLD SOLAR REPORT SERIES

*Recently, the 3rd edition of the World Solar Report series was released at the 7th Assembly of the International Solar Alliance.*

### Key Highlights:

- **Global Solar Capacity Growth:** The global solar capacity has experienced exponential growth, rising from **1.22 GW in 2000** to **1,418.97 GW in 2023**, reflecting a 40% **annual growth rate**.
- **Future Projections:**
  - By **2030**, global solar capacity is projected to reach between **5,457 GW to 7,203 GW**, driven by the goals set under the **Paris Agreement**.
  - This growth will require significant infrastructure investments to meet global climate targets.
- **Employment in the Solar Sector:**
  - The clean energy industry now supports **16.2 million jobs**, with **7.1 million** of those jobs directly linked to solar energy.
  - This highlights the significant role solar energy plays in creating sustainable employment opportunities.
- **Manufacturing Growth: Global solar manufacturing** is expected to exceed **1,100 GW by 2024**, more than doubling the current demand.
  - This surge in production will make solar energy more affordable and accessible, driving further adoption.

- **Rising Global Energy Investments:**
  - Global energy investments are projected to rise from **USD 2.4 trillion in 2018** to **USD 3.1 trillion by 2024**.
  - Investments in **clean energy** are expected to outpace fossil fuel investments, signaling a shift towards sustainable energy sources.
- **Solar Investment Share:**
  - Solar investments accounted for **59%** of total renewable energy investments.
  - This growth is primarily driven by the reduction in solar panel costs, making solar energy more competitive with traditional energy sources.
- **Regional Investment Focus:** The **Asia–Pacific (APAC)** region leads global solar investments, followed by **Europe**, and the **Middle East and Africa (EMEA)**. These regions are emerging as key players in the solar energy sector.
- **Advancements in Solar Efficiency:**
  - **Monocrystalline solar PV modules** have reached an efficiency of **24.9%**, while **multijunction perovskite cells** are expected to offer even higher efficiencies and lower costs.
  - **Manufacturing Efficiency:** Solar manufacturing processes have reduced **silicon usage by 88%** in 2023.
    - In addition, utility-scale **solar PV costs** have dropped by **90%**, highlighting the technological advancements in material efficiency and the significant cost reductions in solar energy production.
- **Potential Green Hydrogen Leaders:** The report identifies **Egypt, Morocco, Namibia,** and **South Africa** as potential leaders in the development of a green hydrogen economy due to their abundant renewable energy resources.
  - These countries are positioned to harness **green hydrogen**, produced using renewable energy, to decarbonize industries reliant on fossil fuels, such as steel and fertilizers.

## INTERNATIONAL SOLAR ALLIANCE

- **Membership:**
  - The International Solar Alliance (ISA) is an international organization with 120 member and signatory countries.
    - Recently, Paraguay has joined the International Solar Alliance (ISA) as a 100th full time member.
  - It collaborates with governments to improve global energy access and security, promoting solar power as a sustainable solution for a carbon-neutral future.
- **Mission and Objectives:**
  - ISA aims to unlock US$1 trillion in solar investments by 2030 while reducing technology costs and financing challenges.
  - It advocates for solar energy's integration in sectors like agriculture, health, transport, and power generation.

- **Initiatives and Impact:**
  - **Policy Advocacy:** ISA drives change by supporting policies, sharing best practices, and agreeing on common standards.
  - **Business Models and Financing:** It has designed new business models, reduced solar costs, and improved access to financing, making solar more attractive to private investors.
  - **Training and Data:** ISA provides solar engineers and policymakers with training, data, and insights to enhance their work.
- **Global Partnerships:**
  - ISA partners with Multilateral Development Banks (MDBs), Development Financial Institutions (DFIs), private and public sectors, and civil society to implement solar solutions.
  - Special focus is given to Least Developed Countries (LDCs) and Small Island Developing States (SIDS), aiming to deploy cost-effective solar energy solutions.
- **Establishment and Headquarters:** Following the signing of the ISA Framework Agreement by 15 countries on December 6, 2017, ISA became the first international intergovernmental organization headquartered in India.

## TUNA CLUSTER IN THE ANDAMAN AND NICOBAR ISLANDS

*Recently, the Ministry of Fisheries announced the creation of a Tuna Cluster in the Andaman and Nicobar Islands.*

### About:

- **Family:** Tuna belong to the **Thunnini tribe** within the **Scombridae family**, known for their streamlined bodies and high-speed swimming capabilities.
- **Habitat:** Tuna are found in **tropical** and **temperate** oceans around the world, thriving in both warm and cool waters.
- **Species:** There are over **15 species** of tuna, with some of the most notable being: Bluefin tuna, Yellowfin tuna, Albacore tuna, Bigeye tuna and Skipjack tuna.
- **Size and Longevity:** Tuna can grow rapidly, with certain species like the **Bluefin tuna** reaching over **450 kg** in weight and living for several decades.
- **Global Market Demand:** Tuna is one of the most **popular** and **valuable** fish in the global seafood market due to its **flavor**, **texture**, and **nutritional benefits**.
- **Nutritional Profile:** Tuna is rich in **protein**, **low in saturated fat**, and an excellent source of **omega-3 fatty acids**, which benefit **heart health**, **brain function**, and **inflammation reduction**.
  - It also provides essential vitamins and minerals such as: *Vitamin D, Vitamin B12, Iron & Selenium.*

## TUNA FISHERIES POTENTIAL IN THE ANDAMAN AND NICOBAR (A&N) ISLANDS

- **Exclusive Economic Zone (EEZ)**: The A&N Islands, with an **EEZ** covering approximately **6.0 lakh square km**, offer significant potential for fisheries development.
- **Rich Sea Resources**: The region is abundant in **Tuna** and **Tuna-like species**, with an estimated potential yield of **60,000 metric tons**.
- **Strategic Location**: Positioned near **Southeast Asia**, the islands are well-situated for efficient **sea** and **air trade**, enhancing the export potential of tuna and other marine products.
- **Sustainable Fishing**: The pristine waters surrounding the islands support sustainable fishing practices, ensuring the long-term viability of tuna fisheries in the region.

## SNOWFALL IN SAUDI ARABIA'S AL-JAWF DESERT REGION

*Recently, Saudi Arabia's Al-Jawf region witnessed heavy snowfall and rainfall for the first time in recorded history.*

### About:

- **Location:** Located in northern Saudi Arabia, bordering Jordan.
- **Geography and Climate:**
  - Known for its arid desert landscape and vast plains.
  - Experiences a hot desert climate, with high summer temperatures and cooler winters.
- **Agriculture:** Fertile lands support the cultivation of olives, dates, and grains, aided by modern irrigation techniques and underground water reserves.
- **Historical Significance:** Historically important for trade routes linking the Arabian Peninsula with the Levant.

### Reasons for Weather Anomaly:

- **Global Climate Change:** Climate change has altered atmospheric circulation patterns, leading to unpredictable weather events, including atypical rainfall and snowfall in regions like Al-Jawf, which is typically classified as a desert climate.
- **Atmospheric Disturbances:** The region has experienced the influence of **mid-latitude cyclones** or **cold fronts**, which can bring cold air masses from the north, causing precipitation in areas not typically subject to such weather.
- **Orographic Effects:**
  - Al-Jawf is situated at a relatively higher elevation compared to other parts of Saudi Arabia.
  - This elevation leads to orographic lift, where moist air is forced upward over the mountains or hills, cooling and condensing into precipitation, including snow.

- **Wind Patterns and Moisture Influx:** The region's location may have allowed for the movement of moist air from the **Mediterranean** or the **Red Sea**, with **prevailing westerly winds** bringing moisture that, when cooled in the desert atmosphere, resulted in precipitation.
- **Geographical Position in Relation to Pressure Systems:** Al-Jawf lies in the convergence zone between **tropical and temperate air masses**, which can cause temperature fluctuations and irregular weather events, especially in winter months when conditions are conducive for snow.

## ADAPTATION GAP REPORT 2024

*Recently, the United Nations Environment Programme released the "Adaptation Gap Report 2024: Come Hell and High Water."*

### About:
- **Purpose**
  - **Annual Publication:** The **United Nations Environment Programme (UNEP)** publishes this report annually to track **global progress** on **climate change adaptation**.
  - **Adaptation Efforts:** The report evaluates how countries are adjusting to and preparing for **current** and **future climate impacts**.
    - It assesses both **government actions** and **international cooperation** in addressing the challenges posed by climate change.
- **Adaptation Gap:**
  - **Definition:** The **adaptation gap** refers to the **discrepancy** between the **actual adaptation efforts** being implemented and the **adaptation needs** that are necessary to mitigate the risks and impacts of climate change.
  - **Implications:** The gap highlights the **insufficient progress** in certain regions or sectors, where the efforts made are not enough to deal with the extent of the challenges posed by climate change, such as **rising temperatures**, **sea-level rise**, and **extreme weather events**.

### Key Highlights:
- **Disparity in Funding:** The **adaptation finance gap** refers to the growing disparity between the financing **needed** for climate adaptation and the **funding available**. This gap has widened significantly in recent years.
  - **2022 Funding Shortfall:** In **2022**, only **USD 28 billion** was provided for adaptation efforts, meeting just **5%** of the financing needs outlined under the **Glasgow Climate Pact**. This highlights a critical funding shortfall.
- **Glasgow Climate Pact and Its Goals:**
  - **Methane Emissions Target:** The **Glasgow Climate Pact** aims to reduce **methane emissions** by at least **30%** below 2020

levels by **2030**, which is a key aspect of global climate adaptation and mitigation efforts.
  - **Annual Financing Needs:** According to the **UNEP**, developing countries require approximately **USD 387 billion annually** by 2030 to address their adaptation needs, underlining the substantial financing gap.
- **Private Sector Role:** Only about **one-third** of the adaptation finance gap is being met by sectors traditionally funded by the private sector, leaving significant opportunities for **private investment**.
- **Impact of Global Warming:**
  - **Temperature Rise:** The **Emissions Gap Report 2024** predicts that global temperatures could rise by **2.6°C to 3.1°C** above pre-industrial levels by 2100, which exceeds the **Paris Agreement** targets and would result in severe climate impacts.
  - **Vulnerability of Developing Countries:** Developing countries, despite contributing minimally to global greenhouse gas emissions, suffer disproportionately from **climate-induced weather events**.
    - Recent **floods** in countries like **Nepal**, **Nigeria**, and **Chad** have highlighted their **financial and infrastructural vulnerabilities** to climate impacts.
- **Global Adaptation Policy:** As of now, **171 countries** have at least one adaptation policy in place, but **26 countries** still lack an adaptation policy.

### EVIDENCE SUPPORTING THE NEED TO ACCELERATE ADAPTATION WORLDWIDE

- **Accelerating Climate Change:** The global mean surface temperature is approaching +1.5°C earlier than expected, with irreversible impacts already observed, particularly affecting vulnerable groups like women and the poor.
- **Understanding Adaptation Limits:** Hard and soft adaptation limits are being reached as climate impacts intensify. Understanding these limits is crucial to minimizing losses and identifying the costs of crossing them.
- **Complex Nature of Climate Risks:** Climate risks are not linear; they involve cascading and compounding effects from multiple hazards, which have transboundary impacts requiring coordinated action to avoid maladaptation.
- **Benefits of Adaptation:** Adaptation investment yields significant benefits, for instance US$16 billion annually in agriculture could prevent 78 million people from hunger, and US$1 billion invested in coastal flooding adaptation could save US$14 billion in economic damages.

- **Transformational Adaptation:**
  - **Shift in Approach:** UNEP calls for a shift from reactive to strategic adaptation, emphasizing the need for transformational adaptation to address hard-to-finance areas like ecosystem preservation and cultural heritage.

- **Transformational adaptation** involves actions that go beyond minor adjustments, leading to substantial changes in systems, structures, or functions to better cope with climate change.
- This concept, although contentious during **COP28**, is viewed as critical for addressing the **rising risks** posed by climate change.

## Challenges in bridging the Finance Gap:

- **Lack of Sufficient Funding:**
  - Despite the growing recognition of the need for climate action, the funding available for both mitigation and adaptation remains far below what is required to meet global climate goals.
  - Many developing countries, in particular, struggle to mobilize sufficient finance.
- **Inadequate Private Sector Involvement:**
  - Private sector investment in climate action is not at the required scale.
  - There is hesitation among private investors due to perceived risks, lack of incentives, and short-term profitability concerns, particularly in low-income and developing countries.

### UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

- **About:**
  - **Established** in 1972
  - **Nature:** as a leading global environmental authority.
  - It serves as the principal body within the United Nations dedicated to addressing environmental challenges and promoting sustainable development worldwide.
- **Functions of UNEP:**
  - Setting the Global Environmental Agenda
  - Promoting Sustainable Development
  - Authoritative Advocate for Environmental Protection
- **Major Reports:**
  - Emission Gap Report
  - Adaptation Gap Report
  - Global Environment Outlook
  - Invest into Healthy Planet
- **Major Campaigns:**
  - **Beat Pollution:** Focuses on reducing pollution through public awareness, action, and advocacy efforts.
  - **UN75:** Marks the 75th anniversary of the United Nations and seeks to engage global citizens in discussions about environmental and sustainable development challenges.
  - **World Environment Day:** Celebrated annually on June 5, to promote awareness and action on global environmental issues.
- **Headquarters:** Nairobi, Kenya.

- **Risk Perception and Political Instability:**
  - The perceived financial risks, often amplified by political instability, discourage long-term investments in climate initiatives.
  - Without stable policies and frameworks, private investors are reluctant to commit capital to climate projects in certain regions.
- **Complexity of International Climate Finance Mechanisms:** While climate finance mechanisms exist (e.g., the Green Climate Fund), they often involve complex processes, unclear eligibility criteria, and lengthy approval timelines, which limit access for developing countries.
- **High Upfront Costs:**
  - Climate adaptation and mitigation projects often require significant upfront investment.
  - In many cases, the financial returns or social benefits may only be realized in the medium to long term, creating challenges for immediate capital allocation.
- **Debt Sustainability in Developing Countries:**
  - Many developing countries face high levels of debt, which limits their ability to borrow additional funds for climate adaptation and mitigation projects.
  - Debt sustainability concerns further complicate the mobilization of finance for climate action.

## AFRICAN PENGUINS

*Recently, the African penguin was declared the first penguin species globally to be classified as critically endangered by the International Union for the Conservation of Nature (IUCN).*

### About: African penguins (Spheniscus Demersus)

- **Appearance:**
  - It has **black stripes** and a **unique pattern of black spots** on its chest.
  - The penguin also has **pink glands** above its eyes, which become more vibrant as the penguin gets hotter, helping regulate its body temperature.
  - Males are generally **larger than females**, with noticeably **larger beaks** compared to their female counterparts.
- **Habitat:**
  - The African Penguin is found **within 40 kilometers of the coast** and is highly **coastal** in its behavior.
  - It uses a variety of coastal habitats for critical activities like **breeding**, **molting**, and **resting.**
- **Distribution:**
  - The African Penguin breeds along the **southern coast of Africa**, from **Hollams Bird Island** in Namibia to **Bird Island** in Algoa Bay, South Africa.
  - This species is found only along the **southern African coastline**, making it geographically restricted and more vulnerable to environmental changes.

- **IUCN Status:** Critically Endangered
- **Climate Change:** One of the **major threats** to the African Penguin is the impact of **global warming** on both the **marine and atmospheric environment**. This results in:
  - **Shifts in marine ecosystems**, affecting the availability of the penguin's prey, like sardines and anchovies.
  - **Increased temperatures**, which can further exacerbate habitat loss, particularly impacting their breeding and molting sites.
  - The species' reliance on guano-burrows for protection from heat makes it particularly vulnerable to rising temperatures and shifts in the marine environment.

## ADDITIONAL INFORMATION: PENGUINS

- **Species Diversity:**
  - There are 18 species of penguins, ranging from the tiny Little Blue Penguin (also known as the Fairy Penguin) to the large Emperor Penguin.
  - Penguins are found mainly in the Southern Hemisphere, with some species residing in temperate climates, such as the Galápagos Penguin.
- **Flightless but Excellent Swimmers:**
  - Penguins are flightless birds. Their wings have evolved into flippers that are perfect for swimming rather than flying.
  - They are highly adapted to life in water and are capable of swimming at speeds of up to 15 miles per hour (24 km/h), using their wings like flippers and their strong legs for steering.
- **Adaptation to Cold Environments:**
  - Penguins are well-adapted to cold climates, with thick layers of fat and dense feathers that provide insulation against the freezing temperatures.
  - The Emperor Penguin, the largest species, can survive in temperatures as low as -60°C (-76°F) in the Antarctic region.
- **Penguins' Diet:**
  - Penguins are carnivorous and primarily feed on fish, squid, and krill. Their diet varies depending on the species and the ecosystem they inhabit.
  - Penguins hunt underwater, diving to great depths to catch their prey.
- **Reproduction and Nesting:**
  - Penguins are known for their strong parenting roles. Most species are monogamous, with couples returning to the same mate each breeding season.
  - They typically lay one or two eggs, and both parents take turns incubating them and caring for the chicks.
  - Emperor Penguins have the most remarkable breeding behavior, as the males incubate the eggs in freezing conditions while the females go foraging for food.

- **Unique Communication:**
  - Penguins have a highly developed system of vocalizations, and they often recognize each other through their distinct calls.
  - Their calls help them find their mates or chicks in the large colonies they live in, which can number in the thousands.
- **Conservation Status:**
  - The African Penguin is critically endangered due to overfishing, habitat destruction, and climate change.
  - It was the first penguin species to be listed as critically endangered by the International Union for the Conservation of Nature (IUCN).
  - Other species, such as the Yellow-eyed Penguin and Galápagos Penguin, are also listed as vulnerable or endangered.

## AMUR FALCON

> *Recently, the 9th Amur Falcon Festival was held in Tamenglong district of Manipur to promote awareness about the Amur falcons.*

### About:

- The **Amur Falcon,** known locally as **'Kahuaipuina'** in **Manipur** and **'Molulem'** in **Nagaland** (often referred to as the "Amur Falcon capital of the world"), is a small, agile raptor.
  - These birds are recognized for their **distinctive dark plumage, white wing linings,** and **reddish-orange eyes and feet.**
- **Migration:**
  - Amur Falcons undertake an incredible migration journey from **Northern China, Eastern Mongolia,** and **Far East Russia** to **South Africa,** covering a staggering distance of around **22,000 kilometers.**
  - During their migration, they pass through **India,** making them an important species for the region.
- **Diet:** These falcons are insectivorous, primarily feeding on insects, but they may also consume small vertebrates when the opportunity arises.
- **Threats:** Amur Falcons face various **threats,** including **habitat loss, hunting,** and **illegal trapping,** which endanger their population.
- **Conservation Efforts:**
  - To aid in their protection, **Manipur** began tagging Amur Falcons with **radio transmitters** in **2016** to track their migration paths.
  - Furthermore, an annual **'Amur Falcon Festival'** is organized in **Tamenglong district** to raise awareness about the species and celebrate their significance.

- **Legal Protection:**
  - The Amur Falcon is currently listed as **Least Concern** on the **IUCN Red List** and is protected under the **Convention on Migratory Species (CMS),** Appendix II.
  - It is also included in **Schedule IV** of the **Wildlife Protection Act, 1972,** which provides legal protection in India.

# DICLIPTERA POLYMORPHA

*Recently, scientists discovered a new species of Dicliptera in the Northern Western Ghats of India, known for its fire-resilience and dual blooming.*

## About:

- **Habitat:**
  - Dicliptera polymorpha thrives in the specific ecosystem of the Northern Western Ghats, which is known for its biodiversity and varying climatic conditions.

### ADDITIONAL INFORMATION

- **Fire Resistance:**
  - This species has evolved to be fire-resistant, allowing it to survive in environments prone to fire hazards, such as those found in many tropical regions.
  - This resilience is especially important in the context of climate change, where increased frequency of wildfires threatens many plant species.
- **Dual Blooming:**
  - Dicliptera polymorpha exhibits dual blooming, meaning it flowers twice a year.
  - This is significant for both its reproductive success and its role in the local ecosystem, providing nourishment for pollinators during different seasons.

- **Botanical Classification:**
  - Dicliptera polymorpha belongs to the genus Dicliptera, which is part of the Acanthaceae family.
  - Members of this genus are typically found in tropical regions and are known for their ornamental value as well as their role in local ecosystems.
- **Ecological Importance:**
  - The fire-resilient characteristics of this species make it an important ecological asset in maintaining the stability of the ecosystem.
  - It helps prevent soil erosion and provides habitat for various local wildlife, particularly in the wake of natural disturbances like fire.

# CORPSE FLOWER

*Recently, a massive flower known as "Amorphophallus Titanum" bloomed in Australia.*

## About:

- **About:** It has the largest unbranched inflorescence in the plant kingdom, growing up to 8 feet tall in cultivation and up to 12 feet in the wild.
- **Bloom Cycle:** It blooms for just 2-3 days every two to three years or more, depending on energy accumulation in its underground corm.
- **Odor and Pollination:** It emits a putrid odor, resembling rotting flesh, especially at night. The flower generates heat to spread the smell further, attracting carrion beetles and flies for pollination.
- **Native Habitat:** The plant is native to the tropical rainforests of Sumatra, Indonesia, and was first documented in 1878.
- **Discovery:** First documented by Italian botanist Odoardo Beccari in 1878.
- **Conservation Status:** Listed as "**Endangered**" by the IUCN, with fewer than 1,000 individuals in the wild.

# COMB JELLY

*Recently, scientists discovered that the comb jelly Mnemiopsis leidyi can reverse aging, challenging the typical animal life cycle.*

## About:

- **Appearance:** Comb jellies are gelatinous marine invertebrates with distinctive rows of cilia, also known as "combs," which they use for swimming. These combs produce a shimmering effect as the creature moves through the water.
- **Biological Significance:**
  - **Ancient Species:** Comb jellies are among the oldest animal species, with an evolutionary history that dates back around **700 million years**
  - **Time-Reversal Ability:** Like the *immortal jellyfish (Turritopsis dohrnii)*, comb jellies can reverse their age, a unique biological ability.
- **Characteristics:**
  - **Bioluminescence:** Comb jellies are bioluminescent, meaning they can produce light. This ability is one of the striking features of the species and is used for communication or attracting prey.
  - **Prey Capture:** Unlike many other marine animals, comb jellies do not have stinging cells. Instead, they use sticky cells called **colloblasts** to capture their prey.

# GEOGRAPHY

## ALGERIA

*India and Algeria recently formalized a Memorandum of Understanding (MoU) to bolster defence cooperation, deepen mutual understanding, and strengthen strategic partnerships.*

### About:
- **Location:**
  - Algeria *(Capital: Algiers)* is located in North Africa, situated in the Maghreb region, which is known for its distinct geographical features.
  - This region includes the Atlas Mountains and the coastal plain, and encompasses Morocco, Algeria, Tunisia, and Libya.



- **Borders:** Algeria is bordered by several countries and regions:
  - **East:** Tunisia and Libya
  - **South:** Niger, Mali, and Mauritania
  - **West:** Morocco and Western Sahara
  - **North:** Mediterranean Sea
- **Rivers:**
  - **Chelif River:** The **Chelif River** is one of the major rivers in Algeria, flowing across the northern part of the country.
  - **Djedi River:** The **Djedi River** also plays an important role in Algeria's river system, particularly in the central and southern regions.
- **Mountains and Highlands:** The **Atlas Mountains**, which extend through Algeria, create a rugged terrain in the northern part of the country, separating the coastal plain from the vast Sahara Desert to the south.
- **Highest Point: Mount Tahat**, located in the **Ahaggar Mountains** in the southern part of the country, is the highest peak in Algeria, reaching an elevation of approximately **3,003 meters** (9,852 feet).
- **Climate:** The climate of Algeria is classified as Mediterranean, particularly in the coastal regions, with:

- **Warm, dry summers:** Temperatures can rise significantly during summer months, and rainfall is minimal.
- **Mild, rainy winters:** The winters are more moderate, with some rainfall that helps sustain agriculture and vegetation along the coast.

## WILLINGDON ISLAND

*The rejuvenation of Willingdon Island has recently become a prominent subject of discussion, with trade unions and various stakeholders advocating for its commercial revitalization.*

### About:
- Willingdon Island is a man-made island located in the city of Kochi, Kerala, India.
- It was created in the early 20th century by the British as part of their efforts to develop Kochi as a major port and trade hub.
- The island is named after Lord Willingdon, the then Governor of Bombay, who played a key role in the development of the port and the surrounding infrastructure.
- **Key Features:**
  - **Strategic Location:** Situated between the Kochi mainland and the open sea, Willingdon Island serves as the gateway for international trade.
    - It has a significant role in both the commercial and military sectors of the region.
  - **Port Infrastructure:** The island is home to the Kochi Port, one of the major seaports in India.
    - It hosts various shipping and logistics services, including container terminals, docks, and warehouses.
  - **Industrial and Commercial Activities:** Over the years, Willingdon Island has developed into a hub for various industries, including shipbuilding, marine services, and cargo handling.
    - The island is also the location of important government and business offices.

## LAKE KARIBA

*Recently, a severe drought has caused Lake Kariba to dry up, jeopardizing the operation of the dam that supplies a significant portion of electricity to both Zambia and Zimbabwe.*

**About:**
- **Location:**
  - Lake Kariba is an artificial reservoir located on the Zambezi River, which forms the border between Zambia and Zimbabwe.
  - It was created in the 1950s with the construction of the **Kariba Dam**, one of the largest dams in the world.



- **Primary Purpose:**
  - The primary purpose of the Kariba Dam and the lake is **hydroelectric power generation**, supplying electricity to both **Zambia** and **Zimbabwe.**
  - **Zambia relies on Kariba for more than 80% of its national electricity supply**, making it especially vital for the country's economy.
- **Economic and Environmental Importance:**
  - The lake is a significant **water resource** for the surrounding areas, supporting various sectors such as **fishing** and **agriculture.**
  - It provides **irrigation** to local farmland and supports the livelihoods of many people living around the lake.
- **Concerns:**
  - In recent years, **climate change** and **irregular rainfall patterns** have caused **low water levels**, threatening the dam's ability to generate power efficiently.
  - The low water levels could lead to **power shortages** in both Zambia and Zimbabwe, affecting industries and daily life.

## ASHTAMUDI LAKE

*A recent incident of fish mortality in Ashtamudi Lake has underscored the growing concern over escalating pollution levels in the water body.*

**About:**
- **Location:**
  - **Ashtamudi Lake**, located in **Kollam district, Kerala**, is a designated **Ramsar wetland**, recognized for its ecological importance.
  - The name "Ashtamudi" translates to "Eight Braids" in Malayalam, reflecting its **palm-shaped topography** with multiple branching channels.
  - Its unique **eight arms or channels** give the lake its distinctive name.
- **Geography:**
  - Ashtamudi is the **second largest lake** in Kerala, connecting to the Arabian Sea through the **Neendakara estuary**.
  - The **Kallada River** serves as the primary water source for the lake, contributing to its hydrological and ecological balance.
- **Historical Significance:**
  - Dating back to the **14th century**, the region surrounding Ashtamudi Lake was a prominent port, playing a crucial role in connecting the **ancient city of Quilon (Kollam)** to global trade routes.
  - Historical accounts from the Moroccan explorer **Ibn Battuta** highlight **Quilon** as a major trading hub along the lake's banks during the ancient period.
- **Biodiversity and Ecology:**
  - **Mangrove Ecosystem:** The lake region supports a variety of **marshy mangroves**, which contribute to its ecological richness.
  - **Notable endangered species found in the area include:**
    - *Syzygium travancoricum:* A critically endangered plant species.
    - *Calamus rotang:* A type of rattan palm.

## GELEPHU MINDFULNESS CITY

*Recently, Bhutanese Prime Minister Tshering Tobgay emphasized the significance of the Gelephu Mindfulness City (GMC), describing it as Bhutan's largest co-operative project.*

**About:**
- **Overview:**
  - **GMC** is an urban development project in Bhutan, emphasizing economic growth, sustainability, mindfulness, and holistic living.
  - Envisioned by Bhutan's King Jigme Khesar Namgyel Wangchuck, it represents a unique fusion of modern development and Bhutanese values.
- **Location:**
  - Situated in the **south-central region of Bhutan**, GMC spans over **2,500 square kilometers**, an area larger than **Singapore**.

- The city is strategically placed along Bhutan's border with India (Assam), fostering **cross-border economic and cultural ties**.
- **Key Features:**
  - **Innovative Urban Design:**
    - The city will incorporate **inhabitable bridges** and low-rise structures.
    - Neighborhoods are designed as **mandalas**—repeated patterns radiating from a central public space, promoting balance and harmony.
  - **Integrated Natural Landscape:**
    - The urban plan integrates the region's **35 rivers and streams**, creating **11 ribbon-like neighborhoods** that blend with the natural terrain.
    - **Paddy fields** will act as urban terraces, cascading down hills to the valley, serving as flood protection.
  - **Governance:** As Bhutan's first **Special Administrative Region (SAR)**, GMC will have **independent governance** with powers to enact its own laws and maintain an independent judiciary.
- **Significance for India:**
  - GMC's **proximity to Assam** offers direct benefits to India, such as enhanced **trade, tourism, and cross-border cooperation**.
  - It strengthens **regional connectivity** while contributing to Bhutan's sustainable development model, which aligns with India's regional economic interests.

## BALTIC SEA

> *Recently, Sweden officially sought China's cooperation in providing an explanation for the recent damage to two undersea data cables in the Baltic Sea.*

### About:
- **Formation:**
  - **Youthful Origins:** The Baltic Sea is the **youngest sea** on Earth, having formed **10,000-15,000 years ago** after the retreat of glaciers at the end of the last Ice Age.
  - **Artificial Connections:**
    - It is connected to the **White Sea** via the **White Sea Canal**.
    - It links to the **North Sea** through the **Kiel Canal**.
- **Location:** Situated in **Northern Europe**, the Baltic Sea is bordered by **Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia**, and **Sweden**.
- **Key Subregions:** Includes the Gulf of Bothnia, Bay of Bothnia, Gulf of Finland, Gulf of Riga, and Bay of Gdask.
- **Key Characteristics**
  - **Brackish Water:** The Baltic Sea is one of the largest **brackish water bodies**, where **saltwater** from the **North-East Atlantic** mixes with **freshwater** from various rivers and streams.



- **Unique Marine Ecosystem:** The Baltic Sea houses a sensitive marine ecosystem with a rich diversity of flora and fauna, though it is vulnerable to changes in its environment.
- **Economic Importance:** The sea plays a critical role in food production, economic income, recreation, and well-being for the coastal nations. However, its economic performance is hindered by **environmental degradation**.
- **Concerns and Environmental Challenges:**
  - **Eutrophication:** Approximately 94% of the Baltic Sea is impacted by eutrophication, where nutrient overload causes algal blooms and the creation of dead zones that lack oxygen, disrupting marine life.
  - **Biodiversity Decline:** The region has witnessed severe declines in biodiversity, including:
    - **Cod populations**, which have significantly diminished.
    - The **European eel**, which is now nearly extinct.
    - Only **500 Baltic Harbour porpoises** remain.
  - **Climate Change Impact:** A weakened Baltic Sea could potentially release more **greenhouse gases**, contributing to **climate change** and further environmental instability.
- **Conservation Efforts:** The Baltic Sea Seagrass Initiative trains local communities to restore seagrass meadows, which play a vital role in carbon sequestration and mitigating climate change impacts.

## HEATWAVES A STATE-SPECIFIC DISASTER

> *Recently, the government of Tamil Nadu officially designated heatwaves as a disaster specific to the state.*

### About:
- A **heat wave** refers to a prolonged period of abnormally high temperatures that typically occur during the summer season in **India**.

- These extreme temperatures are not only uncomfortable but can also have severe health impacts.

## IMD CRITERIA FOR DEFINING HEATWAVES

- **Based on Maximum Temperature:**
    - **In Plains:** A temperature of 40°C or higher.
    - **In Hilly Regions:** A temperature of 30°C or higher.
    - **In Coastal Areas:** A temperature of 37°C or higher.
- **Based on Departure from Normal Maximum Temperature:**
  *For stations with normal maximum temperature ≤ 40°C:*
    - **Heat Wave:** A departure from normal of 5°C to 6°C.
    - **Severe Heat Wave:** A departure from normal of above 7°C.
  *For stations with normal maximum temperature > 40°C:*
    - **Heat Wave:** A departure from normal of 4°C to 5°C.
    - **Severe Heat Wave:** A departure from normal of 6°C or more.
- **Based on Actual Maximum Temperature:**
    - **Heat Wave:** Occurs when the actual maximum temperature exceeds 45°C.
    - **Severe Heat Wave:** Occurs when the temperature exceeds 47°C.
- **Declaration Criteria:**
    - The conditions must be met at two or more stations within a Meteorological sub-division.
    - These conditions must persist for at least two consecutive days.

## Factors Contributing to the Occurrence of Heatwaves in India:

- **Prevalence of Hot and Dry Air:**
    - A large region of **hot and dry air** acts as a heat reservoir. This air mass, typically found over desert and semi-arid regions, absorbs a considerable amount of solar radiation.
    - Prevailing **winds** then transport this hot air to other regions, further raising temperatures.
    - This transfer of heat to other areas, particularly during the summer months, exacerbates the intensity and duration of heatwaves across vast parts of the country.
- **Absence of Moisture:**
    - Moisture in the air has a **heat-retaining** effect, preventing heat from escaping into the atmosphere. However, in the absence of moisture, dry air allows **solar radiation** to reach the ground more directly.
    - At night, dry air does not trap the heat effectively, which means the heat that accumulated during the day quickly radiates back into space, leading to a sharp temperature rise the following day.
    - The **lack of moisture** thus contributes to **higher daytime temperatures**, especially in areas with minimal rainfall.

- **Cloudless Skies:**
    - Clouds naturally reflect a portion of the sun's radiation back into space, acting as a **shield** that prevents the Earth's surface from heating excessively.
    - However, during heatwaves, **clear skies** allow for **maximum solar radiation** to reach the ground.
    - Without clouds to block sunlight, more energy is absorbed at the surface, leading to **intensified heating**.
    - This condition is often seen during prolonged heatwave events when there is little or no cloud cover.
- **Large Amplitude Anticyclonic Flow:**
    - **Anti-cyclones** are atmospheric systems characterized by large-scale, high-pressure areas where air sinks toward the Earth's surface.
    - As the air sinks, it is compressed, which causes it to **warm up adiabatically** (without gaining external heat). This warm air is then pushed to the surface, causing **rising temperatures**.
    - The presence of such **high-pressure systems** can lock in the heat over an extended period, making the region susceptible to sustained high temperatures.
- **Geographical Considerations:**
    - Geography plays a significant role in the frequency and intensity of heatwaves. Regions with **arid** or **semi-arid climates**, such as the **Northwest** of India, are more prone to extreme heat.
    - These areas, characterized by **dry soil**, sparse vegetation, and limited moisture, are often impacted by **prevailing westerly winds** during the summer months.
    - These winds carry hot, dry air from desert regions, spreading heatwaves **eastward and southward** across the country, intensifying the heat in areas that might otherwise be less affected.

## Challenges in including Heatwaves under the Disaster Management Act (DM Act):

- **Reluctance of the Finance Commission:**
    - The **15th Finance Commission** permits states to allocate **up to 10% of the State Disaster Response Fund (SDRF)** for "local disasters," such as lightning and heatwaves.
    - However, states are required to notify such disasters themselves, which limits the central recognition of heatwaves as a critical disaster category.
- **Significant Financial Implications:**
    - Recognizing heatwaves as a notified disaster would necessitate monetary compensation for heatwave-related casualties.
    - Under existing norms, the government must pay **Rs 4 lakh** for every life lost due to a notified disaster.
    - Given the high frequency and widespread impact of heatwaves, this could impose a substantial financial burden on the exchequer.

- **Difficulty in Estimating Heatwave-Related losses:**
  - Heatwaves rarely cause fatalities directly, as deaths are often attributed to pre-existing health conditions aggravated by extreme heat.
  - Conditions such as **cardiovascular diseases, heatstroke, or dehydration** are common causes of heatwave-related deaths, but linking these deaths directly to heat is challenging.
  - The absence of precise, heat-specific mortality data complicates efforts to assess the true extent of the disaster and allocate resources effectively.
- **Potential Exhaustion of Disaster Relief Funds:**
  - Adding heatwaves to the notified disaster list could strain disaster relief resources. Allocations to the **SDRF** and the **National Disaster Response Fund (NDRF)**, while significant, may not be sufficient to address the financial demands of recurring and severe heatwaves.
  - Additionally, funds already stretched thin by other disasters such as **floods, cyclones, and droughts** could face further pressure, reducing the ability to respond to multiple crises simultaneously.

## Benefits of Heatwaves as a State-Specific Disaster:

- **Enhanced Preparedness and Response:**
  - Recognizing heatwaves as a disaster ensures the development of state-specific response plans. Authorities can implement heatwave action plans that focus on early warnings, public awareness, and emergency response mechanisms.
  - Provisions for water distribution, cooling shelters, and medical aid can be rolled out more effectively.
- **Access to Disaster Relief Funds:**
  - This classification allows the state government to allocate resources from disaster management funds to assist affected communities.
  - Financial aid can be provided to vulnerable populations, including farmers, laborers, and street vendors, who are most affected by extreme heat.
- **Focus on Vulnerable Communities:** Targeted interventions can be designed for at-risk populations, such as the elderly, children, outdoor workers, and urban slum dwellers, to reduce their vulnerability during heatwaves.
- **Encourages Proactive Measures:**
  - Declaring heatwaves as a disaster promotes proactive measures, such as increasing green cover, improving urban planning, and upgrading public infrastructure to withstand extreme temperatures.
  - Awareness campaigns about heat-related illnesses and preventive steps, such as hydration and reduced outdoor exposure, can be intensified.

- **Inclusion in Climate Action Strategies:**
  - Integrating heatwaves into disaster management frameworks highlights the urgent need to address climate change and prioritize heat-mitigation strategies in policies.
  - Urban cooling measures, such as reflective roofs and better ventilation, can become standard practices.
- **Support for Agricultural Sector:** Declaring heatwaves as disasters allows for compensation and aid to farmers whose crops are damaged due to prolonged high temperatures and water scarcity.

## Way Forward:

- **Develop Comprehensive Heat Action Plans (HAPs):**
  - Create localized heat action plans tailored to specific regions, integrating early warning systems, public awareness campaigns, and real-time response mechanisms.
  - Strengthen interdepartmental coordination between health, disaster management, urban development, and agriculture sectors to ensure a cohesive approach.
- **Promote Climate-Resilient Urban Planning:**
  - Encourage the adoption of green infrastructure, such as urban forests, rooftop gardens, and shaded public spaces, to reduce the urban heat island effect.
  - Integrate heat-resilient designs in building codes, focusing on reflective roofing, energy-efficient materials, and passive cooling techniques.
- **Enhance Early Warning Systems:**
  - Invest in meteorological advancements for accurate heatwave predictions and timely dissemination of warnings to communities.
  - Develop mobile-based apps and SMS services to deliver heat alerts and safety tips directly to citizens.
- **Strengthen Public Health Systems:**
  - Equip healthcare facilities to manage heat-related illnesses with additional resources, personnel, and training for healthcare workers.
  - Launch mass awareness campaigns on hydration, first aid for heatstroke, and protective measures during extreme heat conditions.
- **Focus on Vulnerable Communities:**
  - Prioritize interventions for high-risk groups, such as the elderly, children, outdoor workers, and slum dwellers.
  - Provide subsidies for cooling appliances and ensure access to community cooling centers.
- **Implement Water Conservation Measures:**
  - Promote water-efficient practices in agriculture, such as drip irrigation, and prioritize the rejuvenation of water bodies to combat water scarcity during heatwaves.
  - Ensure uninterrupted water supply during extreme heat conditions to prevent dehydration-related fatalities.

# 6 INTERNAL SECURITY

## ARROW-3 MISSILE DEFENCE SYSTEM

*Israel's Defense Ministry is coordinating with Germany's Federal Ministry of Defense for the deployment of the Arrow-3 missile interception system in Germany by 2025.*

### About:

- The Arrow-3 system is an advanced, exo-atmospheric anti-ballistic missile defense system, designed for long-range missile threats.
- This system is a significant component of Israel's comprehensive air-defense network, which also includes **Arrow 2, David's Sling, and Iron Dome systems.**
- Jointly developed by Israel Aerospace Industries and the US Missile Defense Agency, Arrow-3 has been operational since 2017.
- **Features:**
  - **Two-stage solid-fueled interceptors:** These are essential for engaging short- and medium-range ballistic missiles.
  - **Hypersonic speed:** Arrow-3 travels at speeds five times greater than the speed of sound.
  - **Range and altitude:** Capable of intercepting threats within a range of 2,400 km and at altitudes up to 100 km.
  - **Radar capabilities:** Equipped with early warning and fire control radar, providing extended-range acquisition and the ability to track multiple targets simultaneously.
- **Working Mechanism:** The Arrow-3 system utilizes hit-to-kill technology to neutralize incoming missiles. The interceptor missile launches vertically and then pivots towards the predicted interception point.
  - A high-resolution electro-optical sensor then targets the incoming missile, allowing the kill vehicle to collide with and destroy the warhead directly.

## HWASONG-19

*North Korea has declared the successful test launch of its latest intercontinental ballistic missile(ICBM), known as the Hwasong-19. This development is part of North Korea's ongoing efforts to advance its missile technology and strategic capabilities.*

### About:

- **Propulsion Technology:** Solid-fuel propulsion enables quicker deployment, lower detection risk, and enhanced strategic unpredictability.

- **Physical Characteristics:** At 28 meters long, it surpasses U.S. and Russian ICBMs, which are typically under 20 meters.
- **Operational Range:** Estimated range exceeds 13,000 km, capable of reaching the U.S. mainland.

## TYPES OF MISSILES IN INDIA BASED ON TRAJECTORY

- **Ballistic Missiles:** These missiles follow a ballistic trajectory, lofting high before free-falling to their target after the boost phase. Examples include India's **Agni** and **Prithvi** series of ballistic missiles.
- **Hypersonic Glide Vehicles (HGVs):** HGVs are ballistic missiles that achieve hypersonic speeds (above Mach 5) during the re-entry phase. Notable examples are China's **DF-17** and Russia's **Avangard.** India is currently in the "technology demonstration" stage of developing HGVs.
- **Cruise Missiles:** Cruise missiles remain within the Earth's atmosphere and follow a guided flight path at a constant speed to strike terrestrial or naval targets.
  - **Subsonic Cruise Missiles:** These travel slower than Mach 1. Examples include the **U.S. BGM-109 Tomahawk** and India's **Nirbhay.**
  - **Supersonic Cruise Missiles:** These travel faster than Mach 1 but below Mach 5. The **Indo-Russian BrahMos,** capable of speeds close to Mach 3, is a prime example.
  - **Hypersonic Cruise Missiles:** Powered by scramjet engines, these missiles achieve speeds greater than Mach 5. Russia's **3M22 Zircon** (over Mach 8) is a notable example. India is developing the **BrahMos-II,** inspired by Zircon, to reach hypersonic speeds above Mach 8.
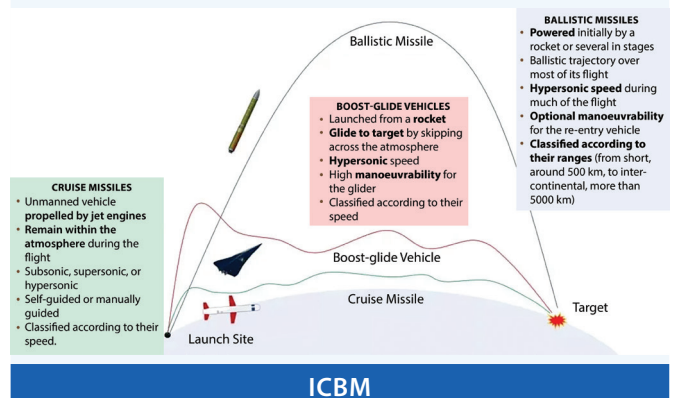


### ICBM

- **Primary Function:** Intercontinental ballistic missiles are primarily designed for the strategic delivery of nuclear warheads but can also be equipped with conventional or other types of warheads.

- **Minimum Range:** Typically, ICBMs have a minimum range of 5,500 kilometers (about 3,400 miles).
- **Maximum Capability:** Some models can reach up to 16,000 kilometers, allowing for global reach capabilities.
- **Speed and Deployment:** ICBMs are characterized by their high speed and greater range compared to shorter-range ballistic systems. They can rapidly reach high altitudes and travel through space before re-entering the Earth's atmosphere to hit their designated targets.
- **Launch Modes:** These missiles can be launched from various platforms including land-based silos, mobile launchers, and submarines, providing flexible and survivable deployment options.
- **Example of Other ICBMs:**
  - **India- Agni-V:** Range of over 5,000 km, showcases similar strategic intent and capabilities in terms of deterrence and defense.
  - **USA - LGM-30 Minuteman III:** Range is approximately 13,000 kilometers.
  - **Russia - RS-28 Sarmat (Satan 2):** Range is around 18,000 kilometers.
  - **China - Dongfeng-41 (DF-41):** Estimated range is 12,000 to 15,000 kilometers.
  - **France - M51 SLBM:** Range is Over 10,000 kilometers.
  - **United Kingdom - Trident II D5:** Range is approximately 12,000 kilometers.

## UNIFIED COMPLEX RADIO ANTENNA

*India and Japan have recently entered into a Memorandum of Implementation (MoI) to jointly develop the Unified Complex Radio Antenna (UNICORN) mast for use on Indian Navy ships.*

### About:

- **State-of-the-Art Integrated Antenna System:** The UNICORN is an advanced communication system designed to improve the stealth characteristics of naval ships.
  - It integrates multiple communication antennas into a single, unified system.
- **Developers:** Jointly developed by three Japanese companies, NEC Corporation, Sampa Kogyo K.K. and the Yokohama Rubber Co., Ltd.
- **First Military Technology Transfer Pact:** This is India's first-ever military technology transfer agreement with Japan.
- **Deepening Strategic Ties:** The pact follows a nine-year agreement between the two nations on defense equipment and technology transfers.
- **Focus on Key Technologies:** Besides the UNICORN mast, the Indian Navy is also exploring Japan's US-2 amphibian aircraft.

### Key Features:

- **Stealth Enhancement:** Replaces traditional masts with a **radome** (a radar dome), consolidating multiple antennas into a single structure.
  - Reduces the radar cross-section and electronic signature, enhancing stealth capabilities.
- **Operational Efficiency:** Improves the **maximum detection distance** for radio waves emitted from external sources.
  - Simplifies the maintenance and installation of communication systems.
- **Reduced Electronic Signature:** The innovative design minimizes electronic emissions, making the naval platforms harder to detect by adversaries.
- **Significance for India:** The co-development of UNICORN aligns with India's efforts to modernize its naval fleet with advanced stealth technology.The collaboration strengthens the strategic partnership between India and Japan in defense and technology innovation.

## NATIONAL SECURITY GUARD (NSG)

*The Union Ministry of Home Affairs (MHA) has established a permanent National Security Guard (NSG) hub in Jammu City to enhance security and counter potential terrorist threats in the region.*

### About:

- **Elite Counter-Terrorism Force:** The NSG is a specialized force trained to combat terrorism and handle critical security situations.
- **Establishment:** In 1984, following Operation Blue Star. Created under the National Security Guard Act, 1986.
- **Administrative and operational control:** Union Ministry of Home Affairs.
- **Motto:** "Sarvatra Sarvottam Suraksha" (Everywhere, Supreme Security).
- **Composition:** The NSG comprises two main groups:
  - **Special Action Group (SAG):** Primarily composed of Army personnel.
  - **Special Ranger Group (SRG):** Comprises personnel from Central Armed Police Forces and State Police Forces.
- **Key Roles:** Counter-terrorism operations, Hijacking situations, Bomb disposal and post-blast investigations, VIP security.

## PRESIDENT'S COLOURS AWARD

*General Upendra Dwivedi, Chief of the Army Staff (COAS) awarded the President's Colours to the 26th and 27th Battalions of Mechanised Infantry Regiment and 20th and 22nd Battalions of Brigade of The Guards.*

**About:**

- **Highest Military Honor:** It is the highest honor that can be conferred upon a military unit.
- **Symbol of Excellence:** The President's Colours symbolize the unit's commitment to duty, professionalism, and valor.
- **Historical Significance:** The tradition of presenting colors to military units dates back to the British era. India adopted this tradition after independence. The Indian Navy became the first amongst the three services to be presented with the President's Colour on 27 May 1951 by Dr. Rajendra Prasad.
- **Presentation Ceremony:** The President of India or the Chief of the Army Staff presents the colors to the unit in a grand ceremony. The Colours, which is a ceremonial flag bearing the unit's insignia and motto, are presented by the President.
- **Criteria for Award:** Units are selected based on their exceptional performance in various operations, training, and administrative duties.

### ADDITIONAL INFORMATION

*Brigade of The Guards:*

- **About:** A mechanized Infantry Regiment of the Indian Army, established as the first "All India" & "All Class" regiment. Troops are recruited from across India, transcending regional, religious, and group divisions.
- **Regimental Centre:** Located in Kamptee, Maharashtra.
- **Establishment:** Raised in 1949 as the senior-most Line Infantry Regiment of the Indian Army.Initiated by Field Marshal K.M. Cariappa, the first Indian Commander-in-Chief of the Indian Army.
- **Honorary Roles:** The President of India serves as Honorary Colonel-in-Chief.The Chief of the Army Staff is the Colonel-in-Chief.

*Mechanised Infantry Arm:*

- It was established in 1979, and has emerged as a modern and highly professional force within the Indian Army.
- **Key Operations:**
  - **Operation Pawan:** Conducted in Sri Lanka.
  - **Operation Vijay:** Played a vital role during the Kargil conflict.
  - **Operation Rakshak:** Focused on counter-insurgency in Jammu & Kashmir.
  - **Operation Snow Leopard:** Engaged in Eastern Ladakh.
  - Actively participates in United Nations peacekeeping missions globally.

## K-4 BALLISTIC MISSILE

*The Indian Navy successfully tested the K-4 ballistic missile from the INS Arighaat submarine, enhancing India's nuclear deterrence capabilities.*

**About:**

- **Development:** K-4 or **Kalam-4**, code-named after former President Dr. APJ Abdul Kalam, is a **solid-fuelled nuclear capable ballistic missile** developed by **DRDO.**
- **Range:** Extending to **3,500 km.**
- **Nuclear triad:** K-4 will strengthen India's weakest leg of the **nuclear triad**. The land and air vectors, with the Agni ballistic missiles and fighter jets with nuclear gravity bombs, are relatively more robust.

### ADDITIONAL INFORMATION

- The **K-5**, with a **range of 5,000 km**, is under development, promising to bridge the gap between regional and intercontinental strike capability.
- Simultaneously, efforts to field the **K-6, a 6,000 km-range** submarine-launched ballistic missile with **MIRV** (multiple independently targetable reentry vehicle) capability, are underway at DRDO's Advanced Naval Systems unit in Hyderabad.

## LRLACM AND LRHM

*Recently, the Defence Research and Development Organisation (DRDO) has conducted the flight-test of Long Range Land Attack Cruise Missile (LRLACM) and successful flight test of a Long Range Hypersonic Missile(LRHM).*
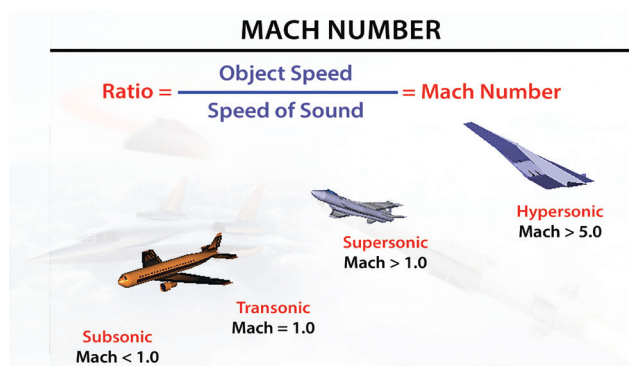
**About:**

- **Range:** 1,000 km
- **Performance:** It is a new variant of the **Nirbhay LRLACM.**
  - Equipped with advanced avionics and software for reliability and efficiency.
  - It is designed to launch from ground using a mobile articulated launcher and also from frontline ships using a universal vertical launch module system.
- **Developed by:** Aeronautical Development Establishment, Bengaluru collaboration with other DRDO laboratories.
- Once inducted, the LRLACM, similar to the U.S. **Tomahawk cruise missile**, will give Indian armed forces a long range standoff capability to strike targets on land.

### NIRBHAY MISSILE

- **About:** India's first indigenously developed long-range subsonic cruise missile.
- **Range and Speed:** Capable of striking targets up to 1,000 kilometers away. Subsonic speed, flying at around Mach 0.7 to Mach 0.9.
- **Guidance and Navigation:** Equipped with Inertial Navigation System (INS), Global Positioning System (GPS), and Geographic Information System (GIS) for accuracy.

## About:

- It is **indigenously developed** by the laboratories of Dr APJ Abdul Kalam Missile Complex, along with various other DRDO laboratories and Industry Partners.
- **Features:**
    - *Speed:* Greater than Mach 5 (around 6,120 km/h).
    - *Range:* Over 1500kms.
- This achievement places India among a **select group of nations**—alongside the United States, Russia, and China—that **possess advanced hypersonic technology.**
    - France, Germany, Australia, Japan, Iran, and Israel, are also pursuing projects to develop hypersonic missile systems.
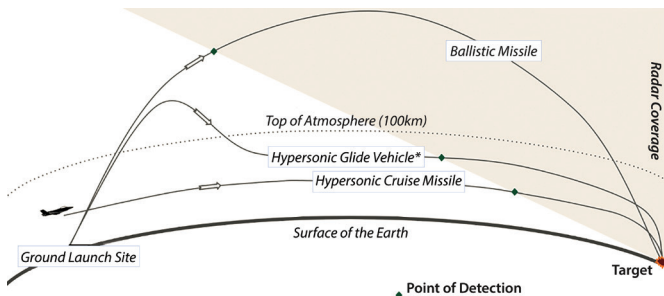




## FIRST ALL-WOMEN BATTALION OF CISF

> *The Home Ministry has approved the establishment of the first all-women battalion of the Central Industrial Security Force (CISF).*

## About:

- Presently, there are **7% women personnel** in the CISF, which has a total strength of 1.77 lakh personnel.
- The training program is being tailored to develop an elite force, capable of handling high-level security tasks such as VIP protection and safeguarding major facilities.

### CISF

- CISF is an armed force of the Union established under an Act of Parliament, "Central Industrial Security Force Act, 1968 (50 of 1968)".

- In the year 1969, the strength of the force established with the help of 3129 personnel, was increased to 1,77,713 as of 01.06.2024.
- According to the mandate, CISF provides security to the premises staff along with the security of property and establishments.
- CISF is providing security to the strategic establishment, including the Department of Space, the Department of Atomic Energy, the Airports, the Delhi Metro, the ports, the historical monuments and the basic areas of Indian economy such as petroleum and natural gas, electricity, coal, steel and mining.
- CISF is providing protection to some private sector units and important government buildings in Delhi.
- Presently, CISF is also providing security to the protected persons classified as Z Plus, Z, X, Y.

# MILITARY EXERCISES

## EXERCISE VAJRA PRAHAR

> *The 15th edition of India-US joint Special Forces Exercise VAJRA PRAHAR commenced at Orchard Combat Training Centre in Idaho, USA.*

## About:

- **Initiated in 2010,** the exercise will enhance combined capabilities in executing joint Special Forces Operations in desert/semi-desert environments.
- **Aim:** It is to promote military cooperation between India and the US through enhancement of interoperability, jointness, and mutual exchange of special operations tactics.

## Other Military Exercises involving India-USA:

- **Bilateral Military Exercises:** Yudh Abhyas (Army), Cope India (Air Force), Tiger Triumph (Tri-Service) and Sangam (Naval Special Forces).
- **Multilateral Military Exercises:** Malabar (Navy), Rim-of-the-Pacific (RIMPAC, Navy), Milan (Navy), La Perouse (Navy), Pitch Black (Air Force), and Red Flag (Air Force).

## EXERCISE GARUD SHAKTI

> *The 9th edition of India-Indonesia Joint Special Forces Exercise GARUD SHAKTI commenced at Jakarta, Indonesia.*

## About:

- The **first edition** was conducted in the year **2012** in India.

- **Aim:** To acquaint both sides with each other's operating procedures, and enhance mutual understanding, cooperation, and interoperability between the Special Forces of both armies.

### ADDITIONAL INFORMATION

- **Exercise Samudra Shakti** and the **IND-INDO CORPAT** (India-Indonesia Coordinated Patrol) are conducted between the Indian Navy and the Indonesian Navy.
- However, **no regular** bilateral air exercises are held between the two powers.

## EXERCISE VINEBAX-2024

*The 5th Edition of Vietnam Indian Bilateral Army Exercise "VINBAX-2024" commenced at Ambala, India.*

### About:

- Instituted in **2018,** exercise VINBAX is an annual training event conducted alternatively in India and Vietnam.
- The aim of the exercise is to foster collaborative partnership, promote interoperability and share best practices between the two sides under **Chapter VII of United Nations Charter** on Peacekeeping Operations.
- This edition marks a significant increase in the scope with **Bi Service** level participation for the first time by personnel of Army and Air Force from both the countries.

## EXERCISE AUSTRAHIND

*The 3rd edition of joint military Exercise AUSTRAHIND commenced at Foreign Training Node, Maharashtra (India).*

### About:

- **Started in 2022,** It is an annual exercise conducted alternatively in India and Australia.
- **Aim:** It is to promote military cooperation between India and Australia through enhancement of interoperability in conduct of joint sub conventional operations in semi-urban environments in semi-desert terrain.

## EXERCISE ANTARIKSHA ABHYAS

*Recently, the Defence Space Agency has hosted the first-ever space exercise called Antariksha Abhyas 2024 in New Delhi.*

### About:

- **Objective of the Exercise:**
  - **Simulation of growing Space threats:** Exercise Antariksha Abhyas focuses on simulating and addressing the growing threats to and from space-based assets and services.
    - It is designed to secure India's strategic objectives in space by integrating space capabilities into military operations and enhancing operational understanding of space-based systems.
  - **Strengthening National Space Security:** The exercise aims to protect and leverage space-based assets critical for national security.
  - **Operational Readiness:** It seeks to improve understanding of dependencies on space-based systems across various stakeholders.
  - **Identifying Vulnerabilities:** The exercise will analyze potential risks and vulnerabilities in operations due to disruptions or denial of space-based services.

### DEFENCE SPACE AGENCY

- **Established:** In 2019 to consolidate and streamline India's defense initiatives in the space domain.
- **Operating under:** Integrated Defence Staff (IDS) of the Ministry of Defence.
- **Objectives and Mission:** The DSA's primary mission is to ensure the effective use of space technology for defense while protecting India's space assets from potential threats.
  - It focuses on enhancing situational awareness in space and strengthening capabilities in space-based Intelligence, Surveillance, and Reconnaissance (ISR).
- **Key Functions of the Defence Space Agency:**
  - **Space Situational Awareness (SSA):** The DSA monitors and tracks space objects, including satellites, debris, and other potential threats to India's space assets.
    - Through SSA, the agency predicts possible collisions and addresses space hazards effectively.
  - **Counter-Space Capabilities:** Recognizing space as a contested domain, the DSA develops and implements counter-space measures to safeguard India's space assets against adversarial actions.
  - **Integration of Space Assets:** The agency integrates various space-based resources, including communication satellites, remote sensing satellites, and navigation systems, into defense operations.
    - This integration enhances situational awareness and operational efficiency.
  - **Coordination with ISRO:** Collaboration with ISRO is a cornerstone of the DSA's operations. By leveraging ISRO's expertise, satellite technologies, and launch capabilities, the DSA advances India's defense applications in space.

## EXERCISE 'POORVI PRAHAR'

> *The Indian Army is conducting a high-intensity tri-services exercise Poorvi Prahar in the forward areas of Arunachal Pradesh.*

### About:

- **Objective:** To hone the combat effectiveness of the Indian Army, Navy, and Air Force in executing Integrated Joint Operations in the challenging mountainous terrain of the region.
- **Key Features:** Utilization of advanced fighter aircraft, reconnaissance platforms, helicopters, and M777 Ultra-Light Howitzers. Employment of innovative technologies like Swarm Drones and Loitering Munitions.

### ADDITIONAL INFORMATION

- **Swarm Drones:** Swarm drones refer to a group of drones working together in a coordinated manner to accomplish a specific mission.
  - These drones communicate with one another and operate like a single entity, using **artificial intelligence (AI)** to execute tasks such as surveillance, reconnaissance, or attacking targets.
- **Loitering Munitions:** Loitering munitions are a hybrid between drones and missiles. These are weapons that **hover or "loiter"** over a target area for an extended period, gathering intelligence before striking. Once a suitable target is identified, the munition dives in for an attack, destroying itself and the target.

## BHARAT NCX 2024

> *The Bharat National Cyber Security Exercise (Bharat NCX 2024), was inaugurated at a ceremony organized by the National Security Council Secretariat (NSCS).*

### Key Features of Bharat NCX 2024:

- Bharat NCX 2024 is a groundbreaking initiative aimed at strengthening India's cybersecurity resilience.

- Organized by the **National Security Council Secretariat (NSCS)** in collaboration with the **Rashtriya Raksha University (RRU)**
- This flagship event brings together over 300 participants from government agencies, public organizations, and private enterprises, all dedicated to protecting critical information infrastructure through advanced training, live simulations, and strategic exercises.

### Key Highlights:

- **Comprehensive Cybersecurity Training:**
  - Features immersive training on **cyber defense** and **incident response** strategies.
  - Includes **live-fire simulations** of cyberattacks on both IT and OT systems, offering hands-on experience in managing and mitigating cyber threats.
- **Strategic Decision-Making Exercise:** Engages senior leaders from various sectors in a simulated **national-level cyber crisis**, fostering strategic decision-making skills under high-pressure scenarios.
- **CISO's Conclave:**
  - A dedicated platform for **Chief Information Security Officers (CISOs)** from the government, public, and private sectors.
  - Includes panel discussions, knowledge sharing, and insights into the latest cybersecurity trends and government initiatives.

### NATIONAL SECURITY COUNCIL SECRETARIAT

- **Overview:** It operates under the **Prime Minister's Office (PMO)** and is responsible for planning and coordinating national security efforts.
- **Primary Role:** The NSCS serves as a premier government body that advises the Prime Minister on issues related to **defense**, **internal security**, and **foreign policy.**
- **Leadership:** The Prime Minister heads the NSCS, while the **National Security Advisor (NSA)** oversees its day-to-day operations and policy-making.
- **Key Personnel:** The NSA is supported by deputies drawn from diverse services, including: Indian Foreign Service (IFS), Indian Police Service (IPS) and Armed Forces.



BHARAT
NATIONAL CYBERSECURITY EXERCISE 2024

Government | Banking, Financial Services and Insurance | Transport | Health | Power & Energy | Strategic and Public Enterprise | Telecom

# 7 SCIENCE & TECHNOLOGY

## INDIA'S FIRST ANALOGUE SPACE MISSION

*The Indian Space Research Organisation (ISRO) has launched its first analogue space mission in Leh, a pioneering step toward preparing for human space exploration and interplanetary missions.*

### About:

- Analogue missions replicate the challenges and environments of space exploration on Earth.
  - They simulate conditions such as confined habitats, limited resources, and isolation, which astronauts would face during missions to the Moon, Mars, or asteroids.



**Quest for Glory**

Ladakh's rugged **landscape** offers an excellent venue, simulating extravehicular activities and low-gravity operations

The mission will **simulate** extreme conditions of extraterrestrial environments

**The findings will directly** support India's Gaganyaan mission, slated to send Indian astronauts into space by 2026

It will also help devising future missions such as the Bharatiya Antariksh Station

The research will provide critical insights for ensuring the safety and performance of astronauts during long-duration spaceflight

- **Objectives:**
  - **Replication of Interplanetary Habitats:** The mission creates environments similar to those astronauts would experience on extraterrestrial bases, focusing on aspects like pressure regulation, life support systems, and habitat layout.
  - **Understanding Human Behavior:** It investigates psychological and physiological effects such as stress, isolation, and teamwork under extreme conditions, ensuring astronauts are well-prepared for prolonged missions.
  - **Testing Advanced Technologies:** The mission tests equipment such as habitat structures, autonomous systems, and resource recycling technologies to refine them for real missions.
- **Collaborations:** The mission is a collaborative effort between several prominent institutions:
  - **ISRO's Human Spaceflight Centre:** Provides technical expertise and mission oversight.
  - **AAKA Space Studio:** Focuses on habitat design and technological support.
  - University of Ladakh and IIT Bombay to conduct research on the psychological and physiological aspects of the mission.
  - **Ladakh Autonomous Hill Development Council:** Offers logistical and environmental support, utilizing the region's extreme conditions as an ideal test ground.

### Significance:

- **Technological Advancements:** The mission serves as a testing ground for advanced technologies, such as autonomous systems, life-support solutions, and habitat construction methods.
  - *For example*, it explores recycling systems for water and air, ensuring sustainability in resource-scarce environments.
- **Preparation for Human Spaceflight:** Insights from the mission directly contribute to projects like Gaganyaan, India's first human spaceflight mission.
  - It ensures astronauts are better equipped to handle the physical and psychological challenges of space travel.
- **Global Leadership:** By conducting such missions, India strengthens its position as a leading player in space exploration. The success of this mission will enhance India's credibility and opens up opportunities for collaborative projects with space agencies like NASA, ESA, and Roscosmos.
- **Foundation for Interplanetary Bases:** Lessons from this mission will be vital for establishing bases on the Moon or Mars, addressing challenges like energy generation, food production, and waste management in extraterrestrial environments.
- **Cross-Industry Applications:** Technologies developed for space missions, such as water recycling and renewable energy systems, can also be adapted for use in remote or resource-scarce areas on Earth.

### GLOBAL ANALOGUE MISSIONS

- **NEEMO (NASA's Extreme Environment Mission Operations):** Conducted underwater, NEEMO simulates microgravity by allowing astronauts to perform space-like tasks while living in an undersea habitat.
  - The mission helps refine tools and procedures for future space missions.
- **SIRIUS (Scientific International Research in Unique Terrestrial Station) Program (by Russia-UAE):** Focuses on studying the psychological impacts of long-term isolation.Includes multinational teams performing simulated space tasks to evaluate group dynamics and mental resilience.

- **Arctic Mars Analogue Svalbard Expedition (AMASE):** Tests Mars-related procedures in the harsh, remote environment of the Svalbard archipelago, simulating conditions like extreme cold and limited resources.
- **Mars Desert Research Station (MDRS) (By Mars Society):** Located in the Utah desert, MDRS replicates Martian terrain and allows researchers to test mobility systems, habitat designs, and operational protocols.

## GRAVITY ENERGY STORAGE

*Gravity energy storage is becoming a promising solution to overcome the challenge of intermittent supply from solar and wind power.*

### About:

- **Meaning:** Gravity energy storage is a system that uses the force of gravity to store and release energy. It provides an alternative to chemical battery storage, focusing on mechanical energy conversion.
- **Working Mechanism:**
  - **Energy Storage:** During periods of excess energy generation, surplus electricity is used to lift a heavy weight, storing energy as gravitational potential energy. The common weights here include water, concrete blocks, or compressed earth blocks.
  - **Energy Release:** When energy demand exceeds supply or solar energy is unavailable, the weight is released. The descending weight drives a turbine, converting stored gravitational energy into electricity.
  - **Typical Setup:** A system often features a **heavy piston** in a fluid-filled cylindrical container. Electricity lifts the piston during surplus energy periods, and its descent during high demand generates power by forcing fluid through a turbine.
  - **Site Flexibility:** Unlike pumped-hydro energy storage, gravity energy systems do not require specific geographic conditions like large reservoirs or significant elevation differences, making them more versatile in site selection.



**STORING EXCESS ENERGY**

**1** On very windy days excess electricity produced by turbines would be used to pull the weight to the top of the shaft

Winches

**2** On still days when electricity is required the weight is lowered generating energy which is then passed back to the grid

Each unit can be configured to produce between 1 and 20MW peak power, with output duration from 15 minutes to 8 hours

Electrical power is absorbed or generated by raising or lowering the weight. The winch system can be accurately controlled through the electrical drives to keep the weight stable in the hole

### Advantages:

- **Durability and Low Maintenance:** Gravity energy systems can last for decades with minimal upkeep, offering a significant advantage over batteries that degrade with use.
- **Environmental Benefits:** Unlike chemical batteries, gravity energy storage avoids harmful reactions, reducing environmental impact and the challenges of battery disposal.
- **Cost-Effectiveness:** For large-scale applications, it can offer Lower Levelized Costs of Energy (LCOE), making it a more economical choice for energy storage.
- **Space and Environmental Suitability:** Ideal for areas with limited space or environmental restrictions, where traditional storage solutions like pumped-hydro or extensive battery systems are not feasible.
- **Sustainability:** Contributes to the transition to a greener energy landscape by leveraging mechanical storage, and avoiding reliance on finite resources or environmentally damaging materials.

### Disadvantages of Gravity Energy Storage:

- **High Initial Costs:** The upfront costs for constructing the infrastructure, such as heavy weights, lifting mechanisms, and turbines, can be significant.
  - This may deter adoption despite its long-term cost-effectiveness.
- **Efficiency Limitations:** Gravity energy storage systems may have lower round-trip efficiency compared to some advanced battery technologies.
  - Energy losses during the conversion and release processes can affect overall system performance.
- **Limited Energy Density:** Gravity energy storage typically has lower energy density compared to chemical batteries.
  - This means it requires larger installations to store equivalent amounts of energy, which may not be ideal for regions with strict space constraints.
- **Dependency on Heavy Materials:** The reliance on heavy materials like concrete blocks or water adds logistical challenges for transportation, installation, and potential environmental impact if resources like water are scarce.
- **Not Ideal for Small-Scale Use:** Gravity energy storage is more suited for large-scale applications and may not be viable for smaller systems or localized energy needs due to its size and cost requirements.

## PROBA-3 MISSION

*Recently, ISRO has launched the European Space Agency's Proba-3 mission from Sriharikota, as earlier announced by the Union Minister of Science and Technology.*
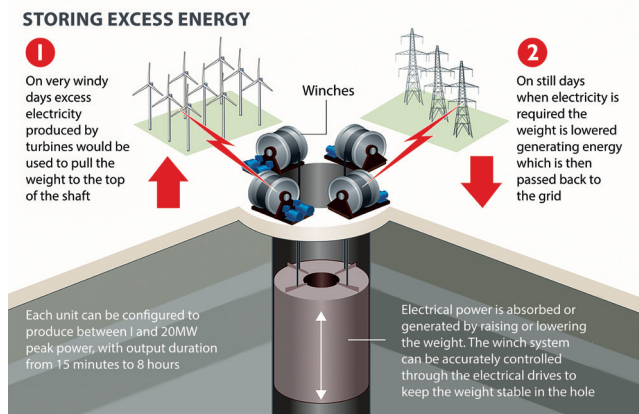
**About:**

- It is the European Space Agency's (ESA) first mission focused on Precision Formation Flying. The mission involves two satellites working together to simulate an artificial eclipse, providing a unique opportunity to study the Sun's outer atmosphere.
  - **Precision Formation Flying** refers to the coordinated movement and positioning of multiple spacecraft or satellites in a highly controlled and precise manner, maintaining specific relative distances and orientations in orbit.
- **Core Objective:** To block the Sun's intense light and enable scientists to observe its corona, the faint outer layer, which is typically hidden. This will offer valuable data about the dynamics of solar phenomena.
- **Mission Components:**
  - **Coronagraph Satellite:** A spacecraft carrying a telescope to observe and analyze the Sun's corona.
  - **Occulter Satellite:** A disc-shaped spacecraft that creates the eclipse effect by blocking sunlight from reaching the Coronagraph.

**Working Mechanism:**

- **Formation Flying:** The two satellites will fly in a synchronized formation, maintaining a precise distance of 150 meters. The Occulter satellite will block direct sunlight, casting a shadow on the Coronagraph satellite.
- **Imaging the Corona:** By eliminating the Sun's glare, the Coronagraph telescope will capture high-resolution images of the solar corona. Observations will be conducted in visible, ultraviolet, and polarized light, ensuring comprehensive analysis.
- **Scientific Studies:** The mission will monitor **Coronal Mass Ejections (CMEs)**, which are large bursts of solar material that can impact Earth's technology. It will also measure total solar irradiance, offering insights into how variations in solar energy output influence Earth's climate.

**Significance:**

- **Breakthrough in Technology:** Proba-3 demonstrates precision formation flying, a cutting-edge technology that ensures two satellites work as a single, coordinated system.
- **Unprecedented Solar Observations:** By creating an artificial eclipse, it provides new insights into the corona, revealing details about solar phenomena that were previously inaccessible. Understanding CMEs is crucial for predicting and mitigating their effects on satellites, power grids, and communication systems on Earth.
- **Contribution to Climate Science:** Measuring the Sun's total solar irradiance will help scientists analyze its role in shaping Earth's climate patterns and fluctuations.

- **Global Collaboration:** The mission showcases the strength of international partnerships, with India playing a pivotal role by launching ESA's innovative mission.

## DISCOVERY OF A LOST MAYAN CITY USING LIDAR

*Scientists have recently uncovered a long-lost Mayan city hidden for centuries beneath the dense jungle of Mexico using LiDAR technology.*

**About:**

- **Light Detection and Ranging (LiDAR)** is a cutting-edge remote sensing technology that uses pulsed laser light to measure distances from a sensor to Earth's surface. Mounted on aircraft, LiDAR sensors collect data to create **high-resolution 3D models** of terrain with vertical accuracy up to **10 cm.**
- **Components:**
  - **Laser:** Emits rapid light pulses toward the ground.
  - **Scanner:** Tracks the reflections of these pulses.
  - **GPS Receiver:** Determines the precise location of the LiDAR sensor.

**Working Mechanism:**

- **Data Collection:** A laser emits pulses of light that travel to the ground, where they interact with objects like vegetation, buildings, or terrain features. The reflected or scattered light is captured by the LiDAR sensor.
- **Distance Calculation:** The system measures the **two-way travel time** of the laser pulses to calculate the distance between the sensor and the surface.
- **Integration with GPS and IMS:** The data is combined with **Global Positioning System (GPS)** and **Inertial Measurement System (IMS)** information to create detailed elevation maps.
- **Point Cloud Creation:** LiDAR data is initially gathered as a dense "**point cloud**" of individual reflections, including those from structures, vegetation, and the ground.
  - Advanced analysis separates these reflections to distinguish features like tree canopies, buildings, and bare terrain.
- **Bare Earth Models:** Scientists refine LiDAR data to produce "**bare earth**" digital elevation models, which strip away vegetation and structures, revealing hidden features such as ancient ruins.
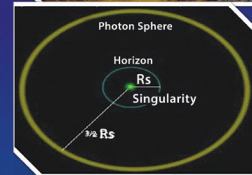
**Applications of LiDAR:**

- **Geographical and Surface Mapping:** Provides precise, three-dimensional data about the Earth's shape and surface characteristics.
  - This is critical for geographers, conservationists, and engineers for urban planning, resource management, and environmental monitoring.

- **Policy and Decision-Making:** Assists policymakers by providing accurate terrain data for infrastructure development, disaster preparedness, and land-use planning.
- **Archaeological Discoveries:** LiDAR has revolutionized archaeology by enabling researchers to uncover ancient sites obscured by vegetation or buried beneath the surface.
  - *For example,* it revealed the intricate layout of the hidden Mayan city, including its roads, plazas, and structures, offering new insights into Mayan civilization.
- **Conservation and Forestry:** Helps conservationists monitor forest density, track deforestation, and assess biodiversity by identifying vegetation patterns.
- **Engineering and Infrastructure:** Facilitates detailed analysis of terrain for building roads, bridges, and other infrastructure projects, ensuring precision and safety.

## FIRST 'BLACK HOLE TRIPLE' SYSTEM DISCOVERED

*Astronomers have found a rare triple black hole system called 'V404 Cygni' that changes our understanding of how black holes form.*

### About:

- Located about 8,000 light-years from Earth, **V404 Cygni** has a black hole with two orbiting stars—one very close, circling every 6.5 days, and a second much farther away, around 100 times the distance of Pluto from our Sun.
- **Insights from V404 Cygni:** This V404 Cygni system suggests a different formation method called **"direct collapse",** where a black hole forms quietly without a supernova explosion.
  - Thousands of simulations confirmed that this was the most likely way V404 Cygni's black hole formed, sparing the second, distant star from being ejected by a violent explosion.

### Black Hole:

- It is a region in space with such strong gravity that nothing, not even light, can escape from it. According to **Einstein's theory of general relativity,** a black hole is created when a large mass becomes very compact, bending spacetime. The boundary of no return is called the event horizon.
- **Types:** There are four main types of black holes:
  - **Stellar Black Holes:** Formed by collapsing stars.
  - **Intermediate Black Holes:** Larger than stellar but smaller than supermassive.
  - **Supermassive Black Holes (SMBH):** The largest type, found at the centers of galaxies, like Sagittarius A* in our galaxy.
  - **Micro Black Holes:** Very small, hypothetical black holes, proposed by Stephen Hawking in 1971.

- Black holes form when a massive star runs out of fuel. Stars shine because of nuclear fusion, which pushes outward against gravity. But when a star exhausts its fuel, this outward pressure stops, and gravity takes over, causing the star to collapse.



**STRUCTURE OF BLACK HOLES:**

- **Singularity:**
  The point where whole mass of a black hole is concentrated.
- **Photon Sphere:**
  The outer edge where light bends but is still escapable.
- **Event Horizon:**
  It is a "point of no return" around a black hole.
- **Accretion Disk:**
  It is a disk of gases, dust, stars and planets that fall into the orbit of a black hole.

## LIGNOSAT: WORLD'S FIRST WOODEN SATELLITE

*Japan has launched LignoSat, the world's first wooden satellite into space to prove that wood is a space-grade material.*

### About:

- Named after the **Latin word** for "wood", LignoSat is made of **honoki,** using a traditional Japanese crafts technique without screws or glue.
  - Honoki, a kind of **magnolia tree native to Japan** and traditionally used to make sword sheaths.
- Developed by **Kyoto University** and **Sumitomo Forestry Co.** is scheduled to orbit the Earth for six months.
- The satellite will measure how wood endures the **extreme environment of space,** where temperatures fluctuate from **-100 to 100 degrees Celsius** every 45 minutes as objects orbit through darkness and sunlight.
- It will also gauge timber's ability to reduce the impact of **space radiation** on semiconductors, making it useful for applications such as **data centre construction.**

### ADDITIONAL INFORMATION

- Wood is **more durable** in space than on Earth because there's no water or oxygen that would rot or inflame it.
- Conventional metal satellites create **aluminium oxide** particles during re-entry, but wooden ones would just burn up with less pollution.
- **Impact of Aluminium Oxide on Ozone:**
  - **Catalytic Ozone Depletion:** Aluminium Oxide ($Al_2O_3$) particles act as surfaces for chemical reactions that involve ozone-depleting substances, such as chlorine and bromine compounds.

♦ These reactions accelerate the breakdown of Ozone ($O_3$) into Oxygen ($O_2$).

- **Stratospheric Chemical Imbalance:** When released at high altitudes during re-entry, aluminium oxide alters the natural chemical balance in the stratosphere, leading to localized ozone depletion.
- **Persistent Impact:** Aluminium oxide particles can remain suspended in the atmosphere for an extended period, contributing to ongoing chemical reactions that degrade the ozone layer.
- **Increased UV Radiation:** Ozone depletion caused by aluminium oxide results in more ultraviolet (UV) radiation reaching the Earth's surface, which poses risks to human health, ecosystems, and the environment.

# CENTENARY OF BOSE-EINSTEIN STATISTICS

*India recently marked the centenary of Bose-Einstein Statistics that reshaped modern physics and quantum mechanics.*

## About:

- In 1924, Satyendra Nath Bose introduced a novel approach to counting particles, particularly photons, as indistinguishable entities in his paper, ***"Planck's Law and the Hypothesis of Light Quanta".***
- Albert Einstein expanded on this work, laying the foundation for Bose-Einstein statistics and the concept of Bose-Einstein condensates (BECs).
- **Challenging Classical Mechanics:** Bose-Einstein statistics challenged the classical assumption that particles are distinguishable, where each particle is treated as unique and individually trackable. This new perspective reshaped our understanding of particle behavior in quantum systems.
- **Classification of Quantum Particles:** Bose-Einstein statistics distinguish between two types of particles in quantum mechanics:
  - **Bosons:** Named after Bose, these particles can occupy the same quantum state, making them indistinguishable. Their behavior enables phenomena like superconductivity and superfluidity.
  - **Fermions:** These particles obey the Pauli exclusion principle, which prohibits two fermions from occupying the same quantum state, governing the structure of matter.
- **Bose-Einstein Condensate (BEC):** Bose and Einstein's theoretical work predicted the existence of a unique state of matter—BEC—formed when bosonic particles are cooled to near absolute zero (-273.15°C). At this state, the particles merge into a single quantum entity with wave-like properties.
  - BECs exhibit unique properties, such as **superfluidity and superconductivity.**

- **Experimental Confirmation:** BEC remained a theoretical concept until 1995, when Eric Cornell and Carl Wieman successfully created it in a laboratory. Their groundbreaking work earned them the Nobel Prize in Physics in 2001.

### ADDITIONAL INFORMATION

- **Superfluidity:** It is a phase of matter where a fluid flows without viscosity. This means it can move through narrow channels, around obstacles, or along surfaces without losing energy due to friction. Superfluidity is observed in certain isotopes of helium (like helium-4 and helium-3) when cooled to temperatures near absolute zero.
- **Superconductivity:** Superconductivity is a state in which a material can conduct electricity without resistance. This phenomenon occurs in certain materials when cooled below a critical temperature.

## Significance of Bose-Einstein Statistics:

- **Foundation of Bose-Einstein Condensates (BECs):** Bose-Einstein statistics describe bosons, leading to the discovery of Bose-Einstein condensates, a unique state of matter where particles act in perfect quantum coherence. This has deepened our understanding of macroscopic quantum phenomena like superfluidity.
- **Explanation of Blackbody Radiation:** It resolved the ultraviolet catastrophe by accurately describing blackbody radiation, laying the groundwork for quantum mechanics and Planck's law, which revolutionized our understanding of energy quantization.
- **Impact on Solid-State Physics:** Bose-Einstein statistics explain collective excitations (like phonons) in solids, which are essential for understanding material properties like heat capacity and thermal conductivity.
- **Applications in Quantum Optics:** They underpin photon behavior, enabling advancements in quantum optics and technologies like lasers, optical tweezers, and fiber-optic communication systems.
- **Cosmological Implications:** Bose-Einstein statistics describe photons in the cosmic microwave background, aiding in modeling early universe conditions and advancing our understanding of astrophysics.
- **Development of Quantum Computing:** Key principles from Bose-Einstein statistics influence quantum computing by helping control quantum states, vital for designing stable and scalable qubits.

# OPERATION DRONAGIRI

*Recently, Operation Dronagiri was launched by the Ministry of Science and Technology.*

## About:

- It is a pilot project under **National Geospatial Policy 2022** to demonstrate the potential applications of geospatial technologies and innovations in improving the quality of life of citizens.
- In the first phase, Operation Dronagiri will be implemented in the states of **Uttar Pradesh, Haryana, Assam, Andhra Pradesh & Maharashtra.**
- The pilot projects will be demonstrated to showcase the potential applications of integration of **geospatial data and technology in 3 sectors** --Agriculture, Livelihoods, Logistics and Transport.
- Operation Dronagiri gains support from Integrated Geospatial Data Sharing Interface (GDI).
  - **GDI which will make spatial data accessible**, bringing transformation similar to the process in which UPI has brought about financial inclusion.

### NATIONAL GEOSPATIAL POLICY 2022

- The Policy emphasizes on **Atmanirbhar Bharat by empowering local companies** to
  - generate and utilize their own Geospatial data;
  - encourages open standards, open data and platforms;
  - focuses on easy accessibility of Geospatial data through National Geospatial Data Registry and Unified Geospatial Interface;
  - supports innovation, incubation of ideas and start-up initiatives in the Geospatial sector; and
  - encourages capacity building.
- The Survey of India has launched a **Continuously Operating Reference Stations (CORS) Network** towards redefinition of National Geodetic Framework.

## 'PPP PLUS PPP' MODEL FOR DIABETES

*India is grappling with a burgeoning diabetes epidemic, with over 212 million individuals affected—a significant share of the global diabetes burden. To address this challenge, the "PPP plus PPP" model was introduced on World Diabetes Day (14th November).*

### "PPP Plus PPP" Model:

- The "**PPP plus PPP" model** refers to a **dual-layered partnership** in which **India's public and private sectors collaborate domestically** to enhance healthcare infrastructure while also engaging in strategic alliances with **international partners.**
- **Domestic PPPs in Diabetes Management:**
  - Collaborating with pharmaceutical firms to manufacture affordable recombinant insulin.
  - Engaging private hospitals and NGOs to conduct awareness campaigns and mass screenings.

- Establishing diabetes clinics in rural and semi-urban areas.
- **International Collaborations:**
  - Partnering with organizations like WHO and the International Diabetes Federation to refine care protocols.
  - Leveraging AI and machine learning for predictive analytics and personalized treatment.
  - Attracting investments for research and large-scale intervention programs.

## About Diabetes or Diabetes Mellitus (DM):

- It is a chronic metabolic disorder characterized by elevated blood glucose levels.
  - This condition arises when the body either doesn't produce enough insulin or becomes resistant to the insulin it does produce.
- **Types of Diabetes:**
  - **Type 1 Diabetes:** An autoimmune disorder where the body's immune system attacks the insulin-producing cells in the pancreas.
  - **Type 2 Diabetes:** The most common type, often associated with lifestyle factors like obesity and sedentary lifestyle. The body becomes resistant to insulin or doesn't produce enough.
  - **Gestational Diabetes:** Develops during pregnancy and usually resolves after childbirth.
- **Symptoms:** Frequent urination, Increased thirst, Excessive hunger, Blurred vision and Fatigue.
- **Complications of Diabetes:** Heart Disease, Stroke, Kidney Disease, Nerve Damage, Eye Damage (**Retinopathy**) etc.
- **Prevalence:** Approximately 830 million people worldwide have diabetes, with a significant proportion residing in low- and middle-income countries.
  - India has a substantial diabetes burden, with around 212 million people affected.
- **WHO's Target:** The World Health Organization aims to halt the rise in diabetes and obesity by 2025.

### INSULIN AND ITS ROLE IN CONTROLLING DIABETES

- Insulin, a **hormone produced by the pancreas**, plays a crucial role in regulating blood sugar levels. It acts like a key, **unlocking cells to allow glucose (sugar) from the bloodstream to enter**.
  - This glucose is then used as energy for the body's cells.
- In diabetes, either the **body doesn't produce enough insulin (type 1 diabetes)** or the body's cells don't respond effectively to **insulin (type 2 diabetes)**.
  - As a result, glucose builds up in the bloodstream, leading to high blood sugar levels.

**Government Initiatives to Combat Diabetes in India:**

- **National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS):** This program focuses on early detection, prevention, and management of these non-communicable diseases, including diabetes.
- **National Health Mission (NHM):** This mission includes components for screening, early diagnosis, and treatment of diabetes. It also promotes healthy lifestyles and preventive measures.
- **Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (PMJAY):** This health insurance scheme provides financial coverage for various medical treatments, including those related to diabetes.
- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):** This scheme provides affordable generic medicines, including insulin, to the general public.
- **National Diabetes Control Program:** This program aims to reduce the burden of diabetes through early detection, treatment, and prevention.

## ONE DAY ONE GENOME INITIATIVE

*The Department of Biotechnology (DBT) and Biotechnology Research and Innovation Council (BRIC) introduced the 'One Day One Genome' initiative.*

**About:**

- This initiative showcases India's rich microbial diversity and its significance in areas such as the environment, agriculture, and human health, utilizing insights from **genome sequencing.**
  - Genome Sequencing is the process of **determining the complete DNA sequence** of an organism's genome, which includes all its genes and non-coding regions.
  - It involves identifying the exact order of the **four nucleotide bases (adenine, cytosine, guanine, and thymine)** that make up the DNA.
- **Objective:** The goal is to publicly release a fully annotated bacterial genome from India, accompanied by a comprehensive summary, infographics, and genome data.
  - A fully annotated bacterial genome includes the complete DNA sequence of the bacterium, with detailed identification of all genes, their locations, and predicted functions. It also highlights regulatory elements and links genes to biological processes or pathways.

**Role of Microorganisms in Ecosystems:**

- **Environmental Impact:** It participates in **biogeochemical cycles**, soil formation, and degradation of pollutants.
  - It contributes to methane production and global homeostasis.
- **Agriculture:** It facilitates **nitrogen fixation**, nutrient cycling, and pest control.
- **Human Health:** Symbiotic microorganisms outnumber human cells in the body and defend against pathogens. They also **support digestion, immunity, and mental health.**

## NAFITHROMYCIN: INDIA'S FIRST INDIGENOUS ANTIBIOTIC MEDICINE

*India has launched Nafithromycin, the country's first indigenously developed antibiotic medicine targeting Antimicrobial Resistance (AMR).*

**About:**

- **Development:** It is Developed with support from the Biotechnology Industry Research Assistance Council (BIRAC) and brought to market by Wockhardt under the name Miqnaf.
  - The development of Nafithromycin took 14 years of research and an investment of ₹500 crore, with clinical trials conducted in the U.S., Europe, and India.
- It is designed to treat **Community-Acquired Bacterial Pneumonia (CABP)** caused by drug-resistant bacteria, particularly affecting vulnerable groups like children, the elderly, and immune-compromised patients.
- **Effectiveness:** The antibiotic is ten times more effective than azithromycin, with a three-day treatment regimen that is safer, faster, and better tolerated by patients.
  - It has minimal side effects and no significant drug interactions, making it a versatile solution.
- **Importance:** Nafithromycin is the first new antibiotic in its class to be developed globally in over 30 years and is poised to tackle the global AMR crisis. India bears 23% of the world's pneumonia burden, and this innovation aims to offer a much-needed solution to the growing health crisis.
  - The launch of Nafithromycin marks a significant milestone in India's efforts to develop homegrown solutions for critical healthcare challenges.
- **Approval Status:** It is awaiting final approval from the Central Drugs Standard Control Organization (CDSCO) for public use.

### CDSCO

- The **Central Drugs Standard Control Organization (CDSCO)** is India's National Regulatory Authority (NRA) overseeing the medical devices industry, operating under the **Drugs & Cosmetics Rules**. It functions under the **Ministry of Health & Family Welfare.**
- **Head:** The Drugs Controller General of India (DCGI)
- **Headquarters:** New Delhi.
- **Key Responsibilities Under the Drugs and Cosmetics Act:**
  - Approval of New Drugs
  - Conduct of Clinical Trials
  - Establishing Standards for Drugs
  - Regulation of Imported Drugs' Quality
  - Coordination with State Drug Control Organizations

## PAIR INITIATIVE

*The Union Government has launched the Partnerships for Accelerated Innovation and Research (PAIR) initiative to enhance research capacity in universities, particularly central and state public universities.*

### About:
- The initiative is led by the **Anusandhan National Research Foundation (ANRF).**
- It focuses on fostering research excellence through mentorship-driven collaborations between top-ranking institutions and emerging universities.

### Objectives:
- Promote scientific innovation in under-researched institutions by leveraging mentorship from high-performing institutions.
- Support internationally competitive research with measurable impacts.
- Build collaborative networks among diverse institutions.
- Advance research infrastructure, improve research quality, and infuse best practices to create a vibrant research culture.

### Key Features:
- Aligned with the **National Education Policy (NEP) 2020**, the PAIR program uses a hub-and-spoke model. Top-tier institutions (hubs) will mentor emerging institutions (spokes) by guiding research activities and sharing resources. This model aims to bridge institutional gaps and nurture a robust research ecosystem.
- **Hubs:** Top 25 institutions from the National Institutional Ranking Framework (NIRF) overall ranking, along with select Institutions of National Importance within the top 50.
- **Spokes:** Central and state public universities, along with selected NITs and IIITs.
- Each hub will collaborate with up to seven spoke institutions, ensuring regional diversity.
- Initially limited to a set of institutions, eligibility will expand to include more in subsequent phases.
- Proposals require multi-departmental faculty teams and allow only one submission per hub institution.

### ANRF
- Established under the **ANRF 2023 Act**, ANRF is a national apex body promoting research and innovation across universities, colleges, research institutions, and laboratories.
- It provides strategic direction for scientific research in alignment with NEP 2020 recommendations.
- The **Science and Engineering Research Board (SERB)**, created in 2008, has been integrated into ANRF.
- It facilitates collaboration between academia, industry, and government, to drive innovation and research.

## MACE TELESCOPE

*The Major Atmospheric Cherenkov Experiment (MACE) telescope, inaugurated in Hanle, Ladakh.*

### About:
- It is built collaboratively by Bhabha Atomic Research Centre (BARC), Tata Institute of Fundamental Research (TIFR), and Indian Institute of Astrophysics (IIA).
- Located at around 4.3 km above sea level, it is the highest imaging Cherenkov telescope in the world.

### Components of MACE:
- **Light Collector:** It comprises 356 mirror panels in a honeycomb structure for optimal light reflection and stability.
  - It is coated with silicon dioxide for environmental protection.
- **High-Resolution Camera:** It is equipped with 1,088 photomultiplier tubes to detect faint Cherenkov radiation signals.
  - It has integrated electronics for real-time data processing and digital conversion.
- **Movement:** Uses an altitude-azimuth mount for vertical and horizontal adjustments. It moves on a 27-metre curved track with a total weight of 180 tonnes.

### Working Principle:
- **Cherenkov Radiation:** Gamma rays interact with atmospheric molecules, creating **electron-positron showers.**
  - The charged particles emit **blue light (Cherenkov radiation)** when moving faster than the speed of light in air.
- **Detection:** MACE captures Cherenkov radiation using its light collector and camera, allowing indirect study of high-energy gamma rays.

### Significance of MACE:
- Enables the **study of gamma** rays exceeding 20 billion Electron Volts (eV).
- **Explores astrophysical phenomena** near black holes, gamma-ray pulsars, blazars, and gamma-ray bursts.

### GAMMA RAYS
- These rays are produced by energetic objects in the cosmos, including rapidly spinning pulsars, supernova explosions, hot whirlpools of matter around black holes, and gamma-ray bursts.
- **Properties:** Shortest wavelengths and highest energy in the electromagnetic spectrum. The energy levels exceed **100,000 eV,** compared to visible light's 1.63-3.26 eV.
- **Hazards:** It can damage living cells and cause genetic mutations. The earth's atmosphere blocks gamma rays from reaching the ground.

## STATE OF THE WORLD'S CHILDREN 2024 (SOWC-2024) REPORT

> *UNICEF recently published the "State of the World's Children (SOWC)" report, highlighting key global child welfare issues.*

### About:

- It was first published in 1980, has significantly contributed to global child welfare
  - Each SOWC report examines critical issues impacting children, such as disabilities, conflict, child labour, urbanization, and early childhood development.
- It provides a comprehensive analysis of global trends affecting children.
- The latest flagship report examines three major global forces impacting children's lives — **population shifts, the climate crisis and disruptive technologies**.

### Key Findings:

- **Vulnerability of Children:**
  - **Climate Risks:** Nearly **1 billion children** live in countries facing **high climate** and **environmental risks**. Children are especially vulnerable to:
    - Pollution, extreme weather, rising temperatures, and diseases such as malaria, dengue, and Zika.
  - The effects of climate change include contaminated water supplies, food insecurity, and mental health challenges, including trauma and anxiety.
- **Projections for 2050:**
  - **Survival Rates:**
    - Global newborn survival rates are expected to rise to over 98%.
    - The probability of surviving to age 5 is projected to increase to 99.5%.
  - **Life Expectancy:**
    - Girls are expected to live to **81 years**, while boys will live to **76 years** by the 2050s.
- **Impact of Extreme Weather:**
  - **School Closures:** 400 million students have faced school closures due to extreme weather since 2022, severely disrupting learning and economic growth.
  - **Displacement:** Climate and environmental hazards are also leading to the displacement of children from their homes, worsening their situation.

- **Global Child Population Trends:**
  - **Child Population by the 2050s:** The global child population is expected to stabilize at around 2.3 billion by the 2050s.
  - **Regional Growth:** Significant increases in child populations will occur in South Asia, Eastern and Southern Africa, and West and Central Africa—regions that face climate risks and limited digital infrastructure.
- **Technological Advancements:**
  - **Positive Impacts**: Technologies such as artificial intelligence, neurotechnology, renewable energy, and vaccine breakthroughs could improve childhoods by addressing health, education, and energy needs.
  - **Digitalization Risks**: While digital tools can empower children, they also expose them to online dangers, including sexual exploitation and cyberbullying.
- **Socio-Economic Conditions:**
  - **Low-Income Countries:** By the 2050s, 23% of the world's children will live in low-income countries, more than double the proportion in the 2000s.
  - **Economic Growth:** GDP per capita is projected to more than double in East Asia, Pacific, and South Asia by the 2050s, which could lead to improved living conditions in these regions.
- **Urbanization:**
  - **Urban Population:** By the 2050s, nearly 60% of children will live in urban areas, up from 44% in the 2000s.
  - **Challenges:** Ensuring that urban areas are healthier and more secure is critical for future generations, especially as cities continue to grow.
- **Digital Divide:**
  - **Access to Technology:** More than 95% of people in high-income countries have internet access, compared to only 26% in low-income countries.
  - **Exacerbating Inequalities:** This digital divide deepens existing inequalities, particularly in regions with rapidly growing child populations that lack adequate digital infrastructure.

### UNITED NATIONS INTERNATIONAL CHILDREN'S EMERGENCY FUND (UNICEF)

- **Establishment and Mandate:**
  - Founded in **1946**, **UNICEF** was created in the aftermath of **World War II** to provide emergency relief to children and young people whose lives and futures were endangered due to the devastation caused by the war.

- The primary mandate of UNICEF is to ensure the **rights of every child**—regardless of their country of origin or involvement in the conflict.
- **Global Presence:** UNICEF operates in over **190 countries and territories**, working alongside governments, civil society, and local communities.
- **Funding:** UNICEF is funded entirely through **voluntary contributions** from individuals, corporations, governments, and private donors worldwide.
- **Awards and Recognition:**
  - **Nobel Peace Prize (1965):** Recognized for its ongoing efforts to promote peace and better conditions for children around the world.
  - **Indira Gandhi Prize (1989):** For its outstanding contribution to the welfare of children.
  - **Princess of Asturias Award (2006):** Awarded for its tireless advocacy for children's rights globally.
- **Key Reports and Publications:**
  - State of the World's Children
  - State of the World's Children Reports
- **Headquarters:** New York City, United States.

## "BAL VIVAH MUKT BHARAT" CAMPAIGN

*Recently, the Union Minister for Women and Child Development launched the "Bal Vivah Mukt Bharat" campaign to eradicate child marriage and empower young girls nationwide.*

### About:
- **Focused Approach:** The campaign will prioritize seven states with high rates of child marriage: West Bengal, Bihar, Jharkhand, Rajasthan, Tripura, Assam, and Andhra Pradesh.
  - Additionally, nearly **300 high-burden districts** are targeted for intervention.
- **Action Plan for States and Union Territories:** Every **State and Union Territory** in India is encouraged to develop and implement an **action plan** aimed at **reducing child marriage rates** to below **5%** by the year **2029.**
- **Progress and Data:**
  - According to government data, the **child marriage rate** in India has significantly dropped from **47.4%** in **2006** to **23.3%** in **2019-21,** indicating positive progress in the effort to combat this social issue.
  - Despite the overall decline, certain states like **West Bengal, Bihar, and Tripura** still report higher rates of child marriage compared to the national average.
- **Child Marriage Free Bharat Portal:**
  - **Raise awareness** about the issue of child marriage.
  - **Report cases** of child marriage.
  - **Monitor progress** of the campaign.

- **Monitoring and Reporting:**
  - The portal will enable effective monitoring of **Child Marriage Prohibition Officers (CMPOs)** by strengthening **supervision and evaluation mechanisms.**
  - This ensures that CMPOs are active in **preventing child marriages** and supporting affected individuals.
  - Individuals can **register complaints** related to child marriage on the portal, which will be directed to the relevant CMPOs across the country for swift action.
  - All states have been instructed to **register CMPOs** on the portal to enable **real-time monitoring** of cases.

### Related Initiatives:
- **Legal Provision: The Prohibition of Child Marriage Act (PCMA), 2006**: It is the **primary law** addressing the child marriage in India, which replaced the earlier **Child Marriage Restraint Act of 1929.**
  - **Minimum Age of Marriage:** The PCMA sets the minimum age of marriage at 18 for women and 21 for men.
  - **Punishments:** Those who perform, conduct, or direct any child marriage can face rigorous imprisonment up to two years and/or a fine up to one lakh rupees.
  - **Child Marriage Prohibition Officers (CMPOs):** The act mandates the appointment of CMPOs to prevent child marriages, create awareness, and ensure the law's implementation.
- **Supreme Court's Stance:** The Supreme Court of India has **emphasised that the PCMA cannot be overridden by personal laws,** asserting that child marriages violate minors' free will to choose their life partners.
  - The court has also issued guidelines for the effective implementation of the law, stressing the need for community-driven approaches and multi-sectoral coordination.
- The **Bal Vivah Mukt Bharat Abhiyan (Child Marriage-Free India Campaign)** aims to further reduce child marriage rates below 5% by 2029.
  - It focuses on high-burden states such as *West Bengal, Bihar, Jharkhand, Rajasthan, Tripura, Assam, and Andhra Pradesh.* which have higher rates of child marriage compared to the national average.
  - It emphasizes a multi-faceted approach, including *Education Continuity, Skill Development; Health and Nutrition; and Safety and Security* etc.
  - The launch of the **Child Marriage Free Bharat portal** is a significant step in this direction. It serves as a platform to raise awareness, report cases, and monitor progress.
- Himachal Pradesh State Assembly had passed a Bill increasing the minimum age of marriage for women from 18 to 21 years in order to support gender equality and higher education.

# 9 CULTURE & HISTORY

## NINGOL CHAKKOUBA

*Recently, the Ningol Chakkouba festival was celebrated with great devotion and enthusiasm across the state of Manipur.*

### About:

- Ningol Chakkouba is a cherished festival celebrated annually on the **second day of the lunar month of Hiyangei** in the Meitei calendar.
- Rooted in the traditions of the **Meitei community of Manipur**, the festival has evolved into a broader cultural celebration, embraced by various communities for its emphasis on family bonds and societal harmony.
- **Meaning and Essence of Ningol Chakkouba:**
  - *Ningol* means "married woman" in the Meitei language.
  - *Chakkouba* translates to "invitation for a feast."
- **Symbolism:** Ningol Chakkouba symbolizes familial love and respect.
  - It is an occasion when married daughters are invited back to their parental homes for a grand feast, celebrating the bond between siblings and parents.
- **Key Traditions and Practices:**
  - **Invitations:** It is customary for the son or male members of a family to send formal invitations to their married sisters or daughters a week in advance, highlighting the significance of their return.
  - **Feast and Gifts:** The festival revolves around a **reunion** marked by a meal, featuring traditional Manipuri delicacies.
  - Married women are honored with gifts and blessings, reinforcing the importance of maintaining familial ties.
- **Celebration Beyond Manipur:**
  - The festival is now celebrated in regions outside Manipur, wherever Manipuri communities have settled.
  - It serves as a unifying event for Manipuris living in other Indian states like Assam, Tripura, and Nagaland, and even in Myanmar and Bangladesh.
- **Cultural and Social Significance:**
  - **Reinforcing Family Bonds:** Ningol Chakkouba underscores the importance of family relationships, especially the enduring ties between parents and their married daughters.
  - **Promoting Harmony:** The celebration of happiness and togetherness during the festival contributes to fostering peace and unity within the community and beyond.

## DESHBANDHU CHITTARANJAN DAS

*Recently, Members of Parliament paid homage to Deshbandhu Chittaranjan Das on his birth anniversary.*

### About:

- **Early Life and Education**
  - Chittaranjan Das, fondly called 'Deshbandhu' (Friend of the Nation), was born on November 5, 1870, in Kolkata.
  - His father, Bhuban Mohan Das, was a lawyer and an active supporter of the Brahmo Samaj, a reformist movement.
- **Academic Pursuits:**
  - He graduated from **Presidency College, Calcutta**, and later traveled to England to study law at **Inner Temple**.
  - There, he qualified as a **Barrister in 1894**, demonstrating his keen intellect and determination.
- **Legal Career and Landmark Cases:** Upon his return to India, Das quickly rose to prominence as a barrister in the Calcutta High Court.
- **The Alipore Bomb Case (1908):**
  - The case stemmed from the **Muzaffarpur bombing** (April 30, 1908), where two young revolutionaries, **Khudiram Bose** and **Prafulla Chaki**, attempted to assassinate Magistrate Kingsford of Muzaffarpur. However, their bomb killed two British women by mistake.
  - The British authorities arrested over **30 revolutionaries**, including prominent figures like **Aurobindo Ghosh** and his brother **Barindra Kumar Ghosh.**
  - **C.R. Das** defended Aurobindo Ghosh during the trial. Das's eloquent arguments highlighted Aurobindo's spiritual awakening and non-involvement in the conspiracy, leading to Aurobindo's acquittal.

### DACCA CONSPIRACY CASE

- The Dacca Conspiracy Case of 1910 was a revolutionary attempt in British India to assassinate Charles Tegart, a senior British police officer, as part of efforts to dismantle colonial rule.
- Orchestrated by members of the Anushilan Samiti, prominent revolutionaries like Ullaskar Dutta, Hem Chandra Das, and Purna Chandra Das were implicated.
- The plot, uncovered by British intelligence, led to their arrests and a sensational trial.
- Several conspirators were sentenced to life imprisonment or transported to the Andaman Cellular Jail.

- **Dacca Conspiracy Case (1910-1911):**
  - Das also successfully defended revolutionaries involved in the **Dacca Conspiracy Case**, cementing his reputation as a defender of nationalist causes.
  - Despite his thriving legal career, Das became increasingly drawn toward India's struggle for independence, marking a transition from a celebrated barrister to a passionate freedom fighter.
- **Entry into Nationalist Politics:**
  - Das was deeply influenced by Bengal's nationalist icons, including **Bankim Chandra Chattopadhyay**, the author of *Vande Mataram*, and **Surendranath Banerjee**, a pioneer in Indian nationalist politics and twice President of the **Indian National Congress (INC).**
  - **Formal Political Engagement (1917)**: He officially entered politics in **1917**, presiding over the Bengal Provincial Conference at **Bhowanipore.**
    - His fiery presidential address in Bengali was a rallying cry for self-rule and national unity.
- **Early Political Contributions:**
  - **Support for Annie Besant (1917):** Das supported the election of **Annie Besant** as the **first female President of the INC**, aligning with her Home Rule Movement, which advocated self-governance.
  - **Montagu-Chelmsford Reforms (1918):**
    - At the **Bombay Special Session** and the **Delhi Annual Session of the INC**, Das vehemently opposed the **Montagu-Chelmsford Reforms**, labeling them inadequate and disappointing.
    - His demand for **Provincial Autonomy** became a rallying point for nationalists.
  - **Jallianwala Bagh Massacre Enquiry (1919):**
    - Das was a key member of the **non-official Jallianwala Bagh Enquiry Committee**, alongside leaders like **Mahatma Gandhi** and **Motilal Nehru**.
    - Their efforts exposed British atrocities and galvanized the independence movement.
- **Formation of the Swarajya Party:**
  - **Council-Entry Advocacy (1923):** After the suspension of the Non-Cooperation Movement, Das advocated for **Council-Entry**, a strategy to fight British policies from within legislative councils.
  - **Establishment of the Swarajya Party:** Das, along with **Motilal Nehru**, founded the **Swarajya Party**, initially called the **Congress-Swaraj-Khilafat Party**.
    - Prominent leaders like **Maulana Azad** and **Vithalbhai Patel** supported the initiative.
  - **Achievements:** The party's efforts led to the election of **Maulana Azad** as Congress President during the **Delhi Special Session (1923)**, demonstrating their growing influence within the INC.

- **Social Activism and Labor Movements:**
  - Das was deeply committed to social justice and championed the rights of laborers and marginalized communities.
  - **Assam Tea Workers Strike (1921)**: He actively supported the rights of tea plantation workers, highlighting the exploitative conditions they endured.
  - **Railway Workers' Strike**: Das also took up the cause of railway workers, advocating for better wages and working conditions.
- **Legacy and Impact:**
  - **Inspiration for Subhas Chandra Bose:** Das became a mentor to young nationalist leaders like **Subhas Chandra Bose**, who considered him an icon of selfless patriotism.
  - **Death and National Mourning (1925):** Das passed away at the age of 55, a loss deeply felt by the nation.
    - His close associate **Motilal Nehru** described his death as a "cruel blow," while **Jawaharlal Nehru** recalled the profound grief it caused.

## CV RAMAN BIRTH ANNIVERSARY

*India recently observed the 136th birth anniversary of Sir Chandrasekhara Venkata Raman on November 7, 2024.*

### About:

- **Early Life and Education: C. V. Raman was** born in **Tiruchirappalli**, Tamil Nadu, India.
- **Initial Career and Research:**
  - *Finance Department and Continued Research:*
    - Despite his passion for science, Raman initially joined the **Indian Finance Department** in **1907**, as a scientific career seemed uncertain at the time.
    - However, he remained committed to research and found time to conduct experimental studies at the **Indian Association for the Cultivation of Science** in **Calcutta**.
    - Raman's involvement with this institution deepened over the years, and he became its **Honorary Secretary** in **1919.**
  - *Optical Research:*
    - Raman's early research focused on the physical properties of light and sound, specifically in **acoustics** and **optics**, fields he would continually explore throughout his life.
    - In **1918**, his work on **the theory of musical instruments**, particularly those in the violin family, gained significant attention.
- **Academic Career and Major Discoveries:**
  - **Palit Chair of Physics at Calcutta University (1917):** In **1917**, Raman accepted the prestigious **Palit Chair of Physics** at **Calcutta University**, which allowed him to devote himself fully to scientific research.

- **Indian Institute of Science (1933-1948):** In 1933, Raman joined the Indian Institute of Science in Bangalore as a professor, where he continued his groundbreaking work in physics.
  - **Raman Research Institute (1948-Present):** In 1948, Raman founded the Raman Research Institute in Bangalore, which he personally funded and directed. This institute became a center of innovation in physics.
  - **Indian Journal of Physics (1926):** Raman established the Indian Journal of Physics in 1926 and served as its editor, fostering the development of Indian scientific literature.
    - He also played an instrumental role in the founding of the Indian Academy of Sciences and served as its president.
- **The Raman Effect and Nobel Prize:**
  - The Raman Effect, discovered on February 28, 1928, is one of his most monumental contributions to science.
  - Raman found that when light is scattered by a transparent material, it changes frequency, a phenomenon that was later named after him.
  - This discovery, published in the Indian Journal of Physics in 1928, proved to be a major breakthrough in the study of molecular and atomic physics.
  - The discovery earned Raman the Nobel Prize in Physics in 1930, making him the first Indian scientist to win the prestigious award.
  - His work revolutionized the understanding of light scattering and molecular structures.

### ADDITIONAL INFORMATION: RAMAN EFFECT

- It refers to the phenomenon of inelastic scattering of light, where light interacts with the molecules of a medium, resulting in a change in the light's wavelength and energy.
- When monochromatic light (usually from a laser) passes through a transparent medium, most of it is scattered elastically (no change in wavelength, known as Rayleigh scattering).
- A small fraction of light, however, scatters inelastically, causing a shift in its wavelength and frequency. This is the Raman Effect.
- **Applications of the Raman Effect:**
  - **Chemical Analysis:** Used in **Raman Spectroscopy** to identify molecular structures and chemical compositions by analyzing the energy shifts.
  - **Medical Diagnostics:** Helps in detecting biochemical changes in cells and tissues, aiding in cancer diagnostics and other medical conditions.
  - **Material Science:** Characterizes materials such as semiconductors, polymers, and nanomaterials.
  - **Environmental Science:** Monitors pollutants in water, air, and soil.
  - **Pharmaceuticals:** Assists in drug discovery and quality control.

- **Further Contributions and Research:**
  - **Light Diffraction Studies (1934-1942):**
    - Raman also made significant contributions to the study of **light diffraction**, particularly involving **ultrasonic and hypersonic frequencies**.
    - He worked on the interaction of sound waves with light, a phenomenon that led to further developments in **acoustic optics.**
  - **X-ray Studies and Crystal Dynamics (1948):**
    - In the later stages of his career, Raman explored the effects of **X-rays** on infrared vibrations in crystals.
    - He also delved into the study of crystal dynamics, particularly the spectroscopic behavior of crystals and the structure of diamond, pearls, agate, and other iridescent substances.
  - **Research in Human Vision:** Raman's work also spanned the physiology of human vision, where he studied the optical properties of colloids, and electrical and magnetic anisotropy, exploring the behavior of light in different media.
- **Legacy:**
  - **Global Recognition:** His contributions to science earned him numerous honorary doctorates and memberships in prestigious scientific societies. In 1924, Raman was elected a Fellow of the Royal Society**.**
  - **Knighthood and Other Honors:** Raman was knighted in 1929 in recognition of his scientific achievements and his contributions to the field of physics.
  - **Bharat Ratna (1954):** He was honored with India's highest civilian award, the **Bharat Ratna**, for his exceptional contributions to science.

## ACHARYA KRIPLANI

*The birth anniversary of Acharya Kripalani is celebrated annually on November 11th.*

### About:
- **Early Life:**
  - Born on **11th November 1888** in **Hyderabad, Sindh** (now in Pakistan).
  - His original name was **Jivatram Bhagwandas Kripalani**, but he became popularly known as **Acharya Kripalani** due to his association with education and his Gandhian ideals.
  - He was an **independence activist**, **Indian politician**, and **educationist**.
  - Kripalani was deeply committed to education and served as a **teacher** from 1912 to 1927 at various institutions.
  - Around **1922**, he earned the title **'Acharya'** while teaching at **Gujarat Vidyapith**, a university founded by **Mahatma Gandhi**.

- This period marked his transition into becoming a key figure in promoting education aligned with Gandhian principles.
- He played a significant role in **shaping the educational landscape** in India, advocating for an education system that was relevant to the social needs of the time.
- **Environmentalism and Conservation:**
  - Apart from his contributions to education and politics, Kripalani was also an **environmentalist**.
  - He worked alongside **Vinoba Bhave** on various **preservation and conservation activities** during the 1970s.
  - Together, they focused on addressing the ecological concerns of India and promoting sustainable practices.
- **Role in the Indian Independence Movement:**
  - **Active Participation in Freedom Movements:** He became an active participant in the **Non-Cooperation Movement** (1920-22), the **Civil Disobedience Movement** (1930), and the **Quit India Movement** (1942), all of which were crucial in India's fight for independence.
  - **Alliance with Gandhi:** He was a close ally of **Gandhi** and contributed significantly to these movements with his leadership and dedication.
  - **President of the Indian National Congress:** Kripalani also served as the **President of the Indian National Congress** (INC) during the period of independence in 1947.
  - **Member of Interim Government and Constituent Assembly:** Additionally, he was a member of the **Interim Government** (1946–47) and the **Constituent Assembly of India**, where he helped shape the post-independence nation.
  - **Founding the Kisan Mazdoor Praja Party:** After India gained independence, Kripalani became one of the founders of the **Kisan Mazdoor Praja Party (KMPP)**, a political party that focused on the rights of farmers and laborers, marking his departure from the Indian National Congress.
  - **Elected to the Lok Sabha:** He was elected to the **Lok Sabha** multiple times, serving in 1952, 1957, 1963, and 1967 as a member of the **Praja Socialist Party**.
  - **First No Confidence Motion:** Kripalani is famously known for moving the **first-ever No Confidence Motion** in the **Lok Sabha** in 1963, following the India-China War (1962), which reflected his deep concern about national defense and foreign policy.
  - **Wife's Political Achievement:** His wife, **Sucheta Kripalani**, became the **first woman Chief Minister of Uttar Pradesh** in 1963, while Acharya Kripalani himself remained an opponent of Congress policies.
  - **Criticism of Nehru and Indira Gandhi:** Known for his criticism of **Jawaharlal Nehru's policies** and **Indira Gandhi's rule**, Kripalani was also arrested during the **Emergency (1975)**, a period of political repression in India.

- **Literary Contributions:**
  - He was a **prolific writer** and **author**. His autobiography, **"My Times"**, was published posthumously in **2004**.
  - He also wrote **"Gandhi: His Life and Thought"** in 1970, a book that offers insight into Mahatma Gandhi's philosophy and the role he played in India's independence struggle.

## MAULANA ABUL KALAM AZAD

*Recently, November 11 was celebrated as National Education Day in honor of the birth anniversary of Maulana Abul Kalam Azad.*

### About:

- **Early Life:**
  - **Born** on November 11, 1888, in Makkah, Saudi Arabia, to an Indian family, Azad was initially educated at home by private tutors.
  - He showed exceptional intellectual abilities from a young age and mastered several languages, including Arabic, Persian, and Urdu.
- **Hindu-Muslim Unity:** Azad was a staunch advocate for **Hindu-Muslim unity** and opposed the **Partition of India**.
  - He believed in forging a nationalistic movement that included both communities, even when tensions arose.
- **Journalistic Work:**
  - In 1912, Azad launched the weekly **Al-Hilal** in **Urdu**, aimed at promoting **Indian nationalism** and fostering unity between Hindus and Muslims.
    - The journal played a pivotal role in healing the rift created by the **Morley-Minto Reforms** (1909), which had introduced **separate electorates** for Muslims, causing resentment among Hindus.
  - The **British government** banned **Al-Hilal** in 1914, deeming it a vehicle for secessionist propaganda.
    - Undeterred, Azad launched another journal, **Al-Balagh**, which was also banned in 1916.
  - **Exile and Imprisonment:**
    - After the **banning of Al-Balagh**, Maulana Azad was expelled from **Calcutta** and exiled to **Bihar**.
    - He was later released after **World War I** in 1920.
- **Support for Non-Cooperation Movement:** Azad supported **Mahatma Gandhi's Non-Cooperation Movement** (1920-22) and joined the **Indian National Congress** in 1920.
- **Youngest Congress President:** In 1923, at the age of **35**, Maulana Azad became the **youngest President of the Indian National Congress**, a testament to his leadership and influence.
- **Salt Satyagraha:** Azad was arrested in 1930 for violating **Salt Laws** during **Gandhi's Salt Satyagraha** and spent over a year in **Meerut Jail**.

- **Congress Leadership:** Azad served as **Congress President** in 1940 and remained in the role until **1946**.
  - He played a critical role in steering the Congress through pivotal phases of India's freedom struggle.
- **Founding Jamia Millia Islamia:** Maulana Azad was a founding member of **Jamia Millia Islamia University** in **1920**.
  - He played a crucial role in relocating the university's campus from **Aligarh** to **New Delhi** in **1934**.
  - The main gate of the university is named after him in recognition of his contributions.
- **Post-Independence Contributions:**
  - **First Education Minister:** After independence in **1947**, Azad became India's **first Education Minister**.
  - **Educational Reforms and Institutions:**
    - Under his leadership, **IITs (Indian Institutes of Technology)**, the **Indian Institute of Science (IISc)**, the **School of Planning and Architecture**, and the **University Grants Commission (UGC)** were established.
    - These institutions laid the foundation for India's **modern educational system** and contributed to its growth as a global hub for technology and research.
  - **Promotion of Indian Culture:** He was instrumental in establishing the **Indian Council for Cultural Relations (ICCR)**, which helped promote Indian culture abroad.
  - **Cultural Academies:**
    - **Sahitya Akademi** for literature.
    - **Sangeet Natak Akademi** for music and dance.
    - **Lalit Kala Akademi** for fine arts.
  - **Educational Philosophy:** Azad emphasized a fusion of **Eastern and Western education**:
    - Eastern education focused on **spiritual and moral development**.
    - Western education stressed **social progress and scientific achievement**.
    - He envisioned a system that integrated both to create **well-rounded, enlightened individuals**.
- **Posthumous Recognition:** In **1992**, Maulana Abul Kalam Azad was posthumously awarded **India's highest civilian honor**, the **Bharat Ratna**.

## KUTUMB PRABODHAN

> *Recently, the Vice President of India highlighted the significance of prioritizing 'Kutumb Prabodhan' in society.*

## About:

- **Meaning:**
  - **Kutumb** refers to "family" in Hindi, and **Prabodhan** means "education" or "awareness."
    - Together, the phrase denotes family-centered education, often aiming to improve the quality of life through informed decisions and empowerment.

- The goal of **Kutumb Prabodhan** is to help families grow together, ensuring that each member, from children to adults, is aware of the social, educational, and health challenges faced by the community.
- It emphasizes spreading knowledge to foster well-being at the family level, which indirectly leads to social progress.
- **Areas of Focus:**
  - **Health and Hygiene:**
    - Awareness programs related to **sanitation**, **nutrition**, and general **health care** are common in Kutumb Prabodhan initiatives.
    - These programs aim to educate families on maintaining hygiene, preventing diseases, and ensuring proper healthcare for all family members.
  - **Social Issues and Gender Equality:**
    - Kutumb Prabodhan also focuses on educating families about **gender equality**, **women's rights**, **child protection**, and other social issues.
    - It aims to remove stereotypes and promote fairness and equality in family roles.
  - **Financial Literacy:** Another important area of Kutumb Prabodhan is **financial education**, such as teaching families about **saving**, **budgeting**, **investing**, and **managing household finances**.
  - **Educational Awareness:** The importance of **education for all members** of the family is also a key focus. Kutumb Prabodhan advocates for sending children to school and encourages adults to engage in **lifelong learning**.
  - **Personal Development:** This may include programs on **self-awareness**, **skill development**, and **career guidance** to help individuals contribute more effectively to family and community life.

## GURU NANAK JAYANTI

> *Recently, the 555th birth anniversary of Guru Nanak was observed throughout India.*

## About:

- **Early Life:**
  - Guru Nanak was born on April 15, 1469, in the village of Rai Bhoi Di Talwandi (present-day Nankana Sahib, Pakistan).
  - At the age of 30, Guru Nanak had a profound spiritual awakening. He was said to have gone into a deep meditative trance and disappeared for three days.
- Guru Nanak spent the last years of his life in Kartarpur (now in Pakistan), where he established a community based on his teachings.
- Before his death in 1539, Guru Nanak appointed Guru Angad as his successor.

## Key teachings of Guru Nanak:

- **Monotheism:** Guru Nanak emphasized the oneness of God (Waheguru), rejecting the idea of multiple deities.
  - He taught that God is formless, eternal, and beyond human comprehension.
- **Equality of All People:** Guru Nanak strongly advocated for equality, rejecting the caste system and social divisions.
  - He taught that all human beings are equal in the eyes of God, irrespective of their social status, religion, or gender.
- **Service to Humanity (Seva):** Guru Nanak believed in selfless service to others.
  - He emphasized the importance of community service (Seva) and helping the needy without expecting anything in return.
- **Honest Living and Hard Work (Kirat Karni):** He stressed the importance of earning an honest livelihood and living a life of integrity, without indulging in deceit or exploitation.
- **Devotion to God (Simran):** Guru Nanak encouraged the practice of meditation on God's name (Naam Simran) to attain spiritual purity and inner peace.
- **Social Justice:** He spoke out against the prevailing social injustices, including the mistreatment of women, the oppression of lower castes, and the rigid hierarchies within society.
  - Guru Nanak was vocal in his criticism of rituals and superstitions, urging people to focus on true devotion and service.
- **Environmental Stewardship:** Guru Nanak's teachings emphasize the interconnectedness of all creation and the importance of respecting and preserving the environment.
  - In the face of contemporary environmental challenges, these teachings **inspire a sense of responsibility towards nature** and sustainable living.

## Legacy of Guru Nanak:

- **Nankana Sahib:** A Gurudwara was built at his birthplace in the city now known as Nankana Sahib. It is located in the Punjab province of Pakistan.
- **Kartarpur corridor:** The corridor was built to commemorate the 550th birth anniversary celebrations of Guru Nanak Dev in November 2019.
  - It is one of the holiest places for Sikhs where Baba Guru Nanak Dev Ji settled and preached for the last 18 years of his life.
- **Guru Granth Sahib:** Guru Nanak's hymns, known as "Shabads," form a significant part of the *Guru Granth Sahib*, the central religious scripture of Sikhism.
  - His compositions are revered for their deep spirituality and philosophical depth.
- **Japuji Sahib:** One of Guru Nanak's most famous compositions is the *Japuji Sahib*, a prayer that emphasizes the oneness of God, the need for selfless service, and the importance of remembering God in daily life.

| SIKHISM |
|---|

- **Genesis:** Founded by Guru Nanak in the 15th century in Punjab.
- **Meaning of Sikh and Faith:**
  - *Sikh* means 'learner'.
  - The faith is called *Gurmat*, which means the Guru's way.
- **Core Beliefs:**
  - Based on Monotheism (belief in one God, *Ek Onkar*).
  - Emphasizes the internal religious state of an individual and remembrance of God (*Simran*).
  - Rejects idol worship and condemns rituals.
- **Sacred Text:** *Guru Granth Sahib* (also known as *Adi Granth*) is regarded as the living Guru.
- **Khalsa Reformation:** Guru Gobind Singh reformed the Khalsa (a military group of men and women) in 1699.
  - Followers of the Khalsa are required to wear the Panj Kakka, which includes: *Kada* (bracelet), *Kachera* (undergarment), *Kirpan* (sword), *Kesh* (uncut hair), *Kangha* (comb).

## DR. HAREKRUSHNA MAHTAB

*The 125th birth anniversary celebration of Dr. Harekrushna Mahtab was recently held in New Delhi.*

## About:

- **Early Life:**
  - **Full Name:** Harekrushna Mahatab, affectionately known as **Utkal Keshari**.
  - **Place of Birth: Agarpara village** in the **Bhadrak district** of Odisha.
  - **Education:** Mahatab completed his **matriculation** from **Bhadrak High School** before pursuing higher studies at **Ravenshaw College**, **Cuttack**.
- **Role in India's Independence Movement:**
  - **Influence of Gandhi:** Mahatab was deeply influenced by **Mahatma Gandhi** and became an active participant in the **Indian independence movement**.
  - **Leadership in Congress:**
    - From **1924 to 1928**, Mahatab served as **Chairman of the Balasore District Congress Committee**.
    - He became a member of the **Bihar and Odisha Council** in **1924**, where he played a key role in promoting the **boycott of foreign goods** during the **Non-Cooperation Movement** and was arrested for **sedition**.
  - **Salt Satyagraha and Imprisonment:** In **1930**, inspired by **Gandhi's Dandi March**, Mahatab led the **Salt Satyagraha** in **Orissa**, an effort that resulted in his imprisonment.
  - **Opposition to Untouchability:** In **1934**, Mahatab led a movement against **untouchability** and famously opened the gates of his family's temple in Odisha to all castes.

- **Congress Leadership:**
  - **Subhas Chandra Bose** nominated Mahatab to the **Congress Working Committee** in **1938**, where he served until **1950**.
  - He was also the **President of the State Peoples' Enquiry Committee** in **1938**, where he advocated for the **merger of princely states** with the **Odisha province**.
  - He was actively involved in the **Quit India Movement (1942)** and was imprisoned from **1942 to 1945** in **Ahmednagar Fort Jail**.
- **Contribution to Constitution Making:**
  - Mahatab was elected to the **Constituent Assembly** representing **Orissa**.
  - He contributed significantly to the **integration of Odia-speaking Princely States** into the newly-formed province of Odisha, though he did not engage in debates in the Assembly itself.
- **First Chief Minister of Odisha:** Mahatab became the **first Chief Minister of Odisha** from **1946 to 1950** and later served again from **1956 to 1960**.
  - His leadership was instrumental in the **integration of 26 Odia-speaking Princely States** into Odisha, creating a unified state.
  - Mahatab played a vital role in the **merger of Princely States** such as Nilgiri with Odisha in 1947 and negotiated their incorporation into the province.
  - He also **shifted the capital** of Odisha from **Cuttack** to **Bhubaneshwar** and initiated **major infrastructural projects** like the **Hirakud Dam** and the **Rourkela Steel Plant**.
- **Union Minister:** From **1950 to 1952**, Mahatab served as the **Union Minister for Commerce and Industry** where he worked on promoting self-sufficiency and establishing industries in India, influenced by **Gandhi's ideals**.
- **Role in National Politics:**
  - Mahatab served as the **Secretary General of the Congress Parliamentary Party** in **1952**.
  - He also briefly held the position of **Governor of Bombay** from **1955 to 1956**.
- **Key Writings:**
  - **Books:** He wrote a novel titled **'Nutan Dharma'** and a drama called **'Swarajya Sadhana'**.
  - His historical work, **'History of Orissa'**, remains an important contribution to the state's history.
- **Journals and Contributions:**
  - In **1930**, Mahatab founded the **Oriya daily Prajatantra**, which is still in circulation today.
  - He also started a **weekly journal Rachana**, inspired by Gandhi's **Harijan**, to promote Gandhian ideals.
  - Mahatab served as the **chief editor** of **Jhankar**, a monthly journal, and published **Eastern Times**.
- **Sahitya Akademi Award:** In **1983**, Mahatab won the prestigious **Sahitya Akademi Award** for his three-volume work, **'Gaon Majlis'**, written in **Odia**.

## LACHIT BORPHUKAN

*Recently, the Union Minister of Ports, Shipping & Waterways paid tribute to the renowned Ahom military commander Lachit Borphukan on his 402nd birth anniversary.*

### About:

- **Early Life:**
  - Lachit Borphukan was born on **24 November 1622** in Charaideo, Assam.
  - His father, **Momai Tamuli Borbarua,** was a key figure in the Ahom administration and military, serving as the first **Borbarua** of Upper Assam and the **Commander-in-Chief** of the Ahom army under **King Prataap Singha.**
  - Momai Tamuli also established the **Paik system,** an administrative mechanism to organize manpower for civil and military purposes.
- **Career and Ascension:**
  - Lachit's administrative and military journey began as **Hanstidhara Tamuli,** a commander tasked with responsibilities in the royal court.
  - He soon rose to prominence by demonstrating exceptional competence and was promoted to **Ghura Baruah,** a position overseeing royal stables and warhorses.
- **Appointment as Commander-in-Chief:**
  - His capabilities caught the attention of **King Chakradhwaj Singha,** who, seeking a strong leader to defend the kingdom from Mughal invasions, appointed Lachit as **Borphukan** and the **Commander-in-Chief** of the Ahom army.
  - In this role, Lachit was entrusted with safeguarding the kingdom's sovereignty and reclaiming territories lost to the Mughals, particularly Guwahati.
- **Battle of Saraighat (1671):**
  - **Background:**
    - The Mughal Empire, under **Emperor Aurangzeb,** had invaded Assam in 1662 through **Mir Jumla,** reducing Ahom control.
    - The Ahom king tasked Lachit with raising an army and retaking Guwahati, a vital strategic and economic hub.
    - By the summer of 1667, Lachit's forces successfully reclaimed Guwahati.
    - This victory, however, prompted a massive counterattack by the Mughals led by **Ram Singh**
  - **Strategy and Leadership:**
    - Lachit employed **guerilla warfare tactics** to compensate for the numerical and technological inferiority of the Ahom forces.
    - He meticulously fortified positions along the **Brahmaputra River,** understanding that naval supremacy would be critical.

- **Climactic Battle:**
  - In February 1671, Ram Singh launched a naval assault near **Saraighat.** Outnumbered and outgunned, the Ahom soldiers began to lose morale, and some retreated.
  - Despite being severely ill, Lachit boarded a boat and rallied his troops, famously declaring: *"If you want to flee, flee. The king has given me a task, and I will fulfill it. Let the Mughals take me away if they can. Tell the king his general fought well!"*
  - **Outcome:** The Ahom forces achieved a decisive victory, forcing the Mughals to retreat beyond the **Manas River,** marking the western boundary of the Ahom kingdom.
- **Legacy and Contributions:**
  - **Symbol of Resistance:** Lachit Borphukan's victory at Saraighat is celebrated as a defining moment in Assamese history, symbolizing the triumph of courage and strategy over adversity.
  - **Military Tactics:** His use of guerrilla tactics and his ability to inspire his troops in the face of overwhelming odds set a benchmark in military leadership.
  - **Death and Memorial:** Lachit passed away a year after the victory at Saraighat due to natural causes. His remains rest at **Lachit Maidan,** built in 1672 by **Swargadeo Udayaditya Singha** at Hoolungapara, near Jorhat, Assam.
- **National Recognition:**
  - Lachit Borphukan's legacy is honored annually on **Lachit Divas** (24 November), celebrating his contributions to Assamese and Indian history.
  - He remains a source of inspiration, epitomizing the ideals of **duty, bravery, and patriotism.**

## AHOM KINGDOM

- **Establishment:**
  - The **Ahom kingdom**, founded in **1228** by **Chaolung Sukapha**, was established in the Brahmaputra valley of Assam.
  - Remarkably, the Ahom kingdom retained its sovereignty for **600 years**, resisting invasions and maintaining independence until its annexation by the British in **1826** under the **Treaty of Yandaboo**.
  - Known for their **bravery and resilience**, the Ahoms notably repelled the **Mughal Empire**, even at the height of its power.
- **Political Structure:**
  - The Ahoms replaced the older **Bhuiyan political system**, which was based on decentralized power held by landlords, with a more centralized governance model.
  - The state relied heavily on **forced labor**, and those compelled to serve were known as **paiks**. This system underpinned administrative, military, and economic activities.

- **Society and Assimilation:**
  - Ahom society was structured around **clans (khels)**, which governed groups of villages.
  - While they worshipped **tribal gods**, the Ahoms gradually assimilated into Assamese culture, adopting **Hinduism** and the **Assamese language**. However, the Ahom kings retained some of their traditional beliefs.
- **Art, Literature, and Culture:**
  - **Land grants** were provided to poets and scholars, encouraging literary and artistic pursuits.
  - Sanskrit texts were translated into Assamese, promoting intellectual and cultural growth.
  - Historical records known as **buranjis** were composed initially in the **Ahom language** and later in Assamese, documenting the history of the kingdom.
- **Military Organization and Strategy:**
  - The **Ahom king** served as both the supreme leader of the state and the military commander.
  - The **paik system** provided a structured military force, divided into:
    - **Serving paiks**, who actively participated in campaigns.
    - **Non-serving paiks**, who formed a reserve militia, mobilized as needed by the **kheldar**, an expert military organizer.
  - They excelled in **guerilla warfare**, often cutting off enemy communication lines and ambushing from both the front and rear.
  - **Spies** were strategically deployed to assess enemy strength and tactics before initiating campaigns.
  - Key **forts** included **Chamdhara, Saraighat, Simlagarh, Kaliabar, Kajali, and Pandu**.

*Moidams:*

- **Historical Significance:**
  - The **Moidams** represent the burial mound tradition of the **Tai Ahom Dynasty** in Assam, dating back to the **late medieval period (13th-19th century CE)**.
  - These burial mounds were constructed as a way to honor and preserve the remains of the **Ahom royalty**, showcasing the unique cultural and architectural heritage of Assam.
- **Architectural Features:**
  - **Materials Used:** The Moidams were primarily constructed using **earth**, **bricks**, and **stone**.
  - **Structure:** The outer design typically consisted of a large mound of earth, which was often **enclosed by a brick or stone wall**, reflecting a blend of utility and aesthetics.
  - **Location:** The **Charaideo district** of Assam is home to these monuments, which served as the **resting place for Ahom royal families**.
- It has been Inscribed in the UNESCO World Heritage List.

# GURU TEGH BAHADUR MARTYRDOM DAY

*Recently, Guru Tegh Bahadur Martyrdom Day, commemorating the sacrifice of the ninth Sikh Guru, was observed on 24th November.*

## About:

- **Early Life:**
  - Guru Tegh Bahadur, born **Teyag Mal**, was the **youngest son of Guru Hargobind Sahib**, the sixth Sikh Guru (1595–1644).
  - His original name, **Teyag Mal**, reflected his inclination toward renunciation and sacrifice. His father later renamed him **Tegh Bahadur**, meaning **"Brave with the Sword,"** in recognition of his extraordinary valor during battles.
  - Born into the lineage of Sikh Gurus, Guru Tegh Bahadur was groomed with a deep understanding of Sikh teachings, ethics, and martial discipline.

- **Contributions:**
  - **Religious Teachings and Hymns:**
    - Guru Tegh Bahadur contributed over **100 poetic hymns** to the **Guru Granth Sahib**, Sikhism's holy scripture.
    - His hymns cover profound philosophical and spiritual themes, including:
  - The **nature of God**, emphasizing the unity and omnipresence of the divine.
  - Human **attachments and illusions**, urging detachment from materialism.
  - **Mind and body**, addressing inner conflicts and the pursuit of self-control.
  - **Dignity, service, and compassion**, highlighting the values of humility and altruism.

- **Foundation of Anandpur Sahib:**
  - Guru Tegh Bahadur founded **Anandpur Sahib**, a spiritual and cultural hub in the **Rupnagar (Ropar) district** of Punjab.
  - Anandpur Sahib became an important site for Sikh history, as it was here that the tenth Guru, Guru Gobind Singh, later established the **Khalsa Panth** in 1699, a turning point in Sikhism's evolution.

- **Diplomatic Efforts:**
  - Guru Tegh Bahadur played a vital role in reconciling differences between **Raja Bishan Singh** and **Raja Paranpal**, two regional leaders.
  - His successful negotiation prevented a war, showcasing his leadership and diplomatic skills.

- **Promoter of Sikhism:**
  - Guru Tegh Bahadur embarked on extensive travels across the Indian subcontinent, spreading Sikh teachings and establishing **preaching centers**.
  - He founded the town of **Chak-Nanki**, which later became part of **Anandpur Sahib**, further strengthening the Sikh community's presence in Punjab.

- **Martyrdom:**
  - Guru Tegh Bahadur was arrested on the orders of Mughal Emperor **Aurangzeb** in 1665.
  - In **1675**, Aurangzeb ordered the public execution of Guru Tegh Bahadur in Delhi. This act followed his refusal to convert to Islam and his defense of religious freedom for Hindus and other minorities.
  - He was martyred at **Chandni Chowk**, where the **Gurdwara Sis Ganj Sahib** now stands.
  - His martyrdom is observed annually on **Shaheedi Divas (24 November)**, as per the **Nanakshahi calendar**.

- **Sacrifice for Religious Freedom:**
  - Guru Tegh Bahadur's sacrifice earned him the title **"Hind ki Chadar"** (Shield of India). He stood not only for the rights of Sikhs but for the **religious freedom** of all communities.
  - His death became a rallying point for Sikh resistance against oppression, galvanizing the community's spirit of resilience and self-sacrifice.

## TEN GURUS OF SIKH RELIGION

- **Guru Nanak Dev (1469–1539):**
  - **Founder of Sikhism** and the first Sikh Guru, he emphasized universal brotherhood, equality, and devotion to one God.
  - Initiated the practice of **Guru ka Langar**, a community kitchen promoting service and equality.
  - Contemporary of **Babur**, the founder of the Mughal Empire.
  - The **Kartarpur Corridor**, linking India and Pakistan, was inaugurated in 2019 to commemorate his **550th birth anniversary**, symbolizing peace and harmony.

- **Guru Angad Dev (1504–1552):**
  - Second Sikh Guru, he invented the **Gurmukhi script**, making Sikh teachings more accessible to the masses.
  - Further expanded the tradition of **Guru ka Langar**, emphasizing the importance of community service and equality.

- **Guru Amar Das (1479–1574):**
  - Introduced the **Anand Karaj Marriage Ceremony**, formalizing Sikh wedding traditions.
  - Worked towards **abolishing Sati** (self-immolation of widows) and the **Purdah system** (veiling women) among Sikhs, promoting gender equality.
  - Contemporary of **Akbar**, who supported his initiatives for social reform.

- **Guru Ram Das (1534–1581):**
  - Fourth Sikh Guru, he founded the city of **Amritsar** in 1577 on land granted by Emperor Akbar.
  - Initiated the construction of the **Golden Temple (Harmandir Sahib)**, which became the spiritual heart of Sikhism.

- **Guru Arjan Dev (1563–1606):**
  - Compiled the **Adi Granth** in 1604, which later became the **Guru Granth Sahib**, the holy scripture of Sikhism.
  - Oversaw the completion of the **Golden Temple**, a symbol of Sikh identity and spirituality.
  - Martyred under **Emperor Jahangir** on charges of supporting Prince Khusrau, earning the title **Shaheeden-de-Sartaj** (Crown of Martyrs).
- **Guru Hargobind (1594–1644):**
  - Sixth Guru, he transformed the Sikh community into a **military force**, emphasizing the concept of **"Miri-Piri"** (temporal and spiritual authority).
  - Founded the **Akal Takht** (Throne of the Timeless One) and fortified **Amritsar** for defense.
  - Fought wars against **Jahangir** and **Shah Jahan**, establishing Sikh resilience.
- **Guru Har Rai (1630–1661):**
  - Known as a **man of peace**, he focused on missionary work and maintained diplomatic relations with **Aurangzeb**.
  - Promoted environmental conservation and healing through herbal medicine.
- **Guru Har Krishan (1656–1664):**
  - The youngest Guru, appointed at the tender age of **five**.
  - Summoned by **Aurangzeb** under charges of anti-Islamic blasphemy, he remained a symbol of purity and selflessness.
  - Served and comforted the sick during a smallpox epidemic, earning him widespread reverence.
- **Guru Tegh Bahadur (1621–1675):**
  - Founded **Anandpur Sahib**, a center for Sikhism's spiritual and cultural growth.
  - Martyred by **Aurangzeb** for resisting religious persecution and protecting the freedom of worship for Hindus and other minorities.
  - Revered as **"Hind ki Chadar"** (Shield of India) for his ultimate sacrifice.
- **Guru Gobind Singh (1666–1708):**
  - Final human Guru of Sikhism, he founded the **Khalsa Panth** in 1699, a warrior community dedicated to upholding justice and Sikh values.
  - Introduced the rite of **Pahul** (baptism by Amrit) and the **Five Ks**, symbols of Sikh identity and faith.
  - Declared the **Guru Granth Sahib** as the eternal Guru of the Sikhs, passing spiritual leadership to the scripture.

## REANG COMMUNITY

*Recently, members of the Reang community appealed to the government for official recognition of their language, Kaubru.*

**About:**

- **Origin:**
  - **Reang** (or Bru) are the second-largest tribal community in Tripura,
  - Recognized as one of the **75 primitive tribes** in India, they belong to the **Indo-Mongoloid racial stock.**
  - **The Reangs migrated to Tripura in waves:**
    - From the **Shan State of Upper Burma (now Myanmar)** to the **Chittagong Hill Tracts** and then to Southern Tripura.
    - Another group entered Tripura via **Assam and Mizoram** in the 18th century.
- **Language and Clans:**
  - The Reang language, **Kaubru**, is part of the **Tibeto-Burman family** with influences from the **Austro-Asiatic group**. It shares tonal similarities with **Kuki** and is considered a **Kok-Borok dialect**.
  - **The community is divided into two major clans:**
    - Meska
    - Molsoi
- **Traditional Lifestyle and Occupation:**
  - Historically a **nomadic tribe**, many Reangs rely on **hilltop jhum cultivation** (shifting agriculture) and subsistence activities such as:
    - Gathering wild fruits, leaves, and plants.
    - Fishing in hill slopes.
    - Hunting animals and birds.
  - The Reangs also practice food gathering, an age-old activity aligned with their traditional way of life.
- **Religious Beliefs and Practices:**
  - The Reangs are **Hindus**, with a rich pantheon of deities reflecting their tribal and Hindu faith.
    - Key deities include Buraha, Bonirao, Songragma, Jampira, and Lampra.
    - Female deities such as Mwtaikotorma, Tuibuma, Mailoma, and Ganga also hold significant importance.
  - Their belief system incorporates spirituality, the existence of souls, and reverence for spirits.
  - **Vaishnavism** is prominent among some Reangs.
  - Cremation rituals are conducted near a river or stream, following traditional rites and processions.
- **Social Structure:**
  - The Reangs are **endogamous**, marrying strictly within their community.
  - **Divorce** and **widow remarriage** are permitted by the village council chief, known as the **"Rai"**.
  - Social and cultural integrity is maintained through these customs, underscoring the importance of community unity.
- **Cultural Heritage:** The Reangs have a vibrant cultural identity, most notably reflected in the **Hozagiri dance,** a celebrated folk dance accompanied by melodious flute music. This art form is recognized nationally and internationally.

NEXT IAS

- **Modern Developments:** The Reang tribe has undergone significant socio-economic changes due to modernization:
  - Adoption of **progressive agricultural practices**.
  - Increased **awareness of education, health, and sanitation**.
  - Enhanced participation in **economic activities**.

## PARTICULARLY VULNERABLE TRIBAL GROUPS (PVTGS)

- In 1973, the **Dhebar Commission** set up a separate category for **Primitive Tribal Groups (PTGs).**
  - **In 1975,** the Union identified 52 tribal groups as PTGs.
  - **In 1993,** 23 more groups were added to the list. Later, in 2006, these groups were named PVTGs.
- PVTGs are a **more vulnerable group** among tribal groups in India.
  - These groups have primitive traits, geographical isolation, low literacy, zero to negative population growth rate and backwardness.
  - Moreover, they are largely dependent upon hunting for food and a pre-agriculture level of technology.
- According to the 2011 Census, **Odisha** has the largest population of PVTGs followed by Madhya Pradesh.
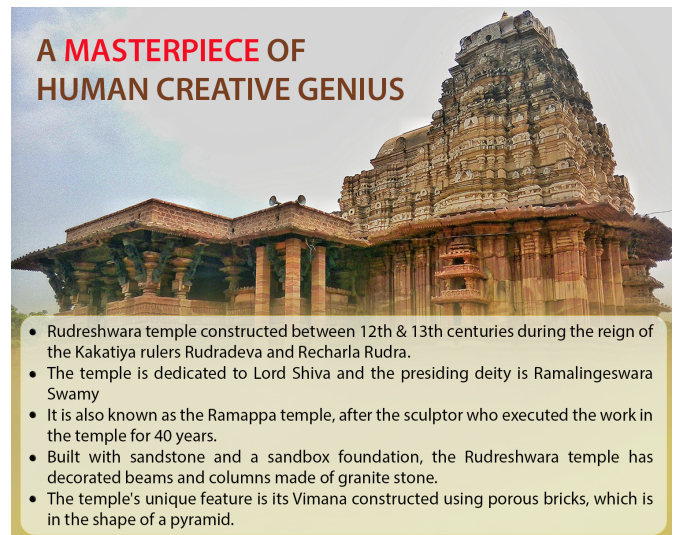
## RAMAPPA TEMPLE

*Recently, the Union Cabinet approved loans amounting to ₹141 crore for the development of the Ramappa Circuit under the Special Assistance.*

### About:

- **Historical Significance and Construction:**
  - The **Rudreswara Temple**, commonly known as the **Ramappa Temple**, was constructed in **1213 AD** during the reign of the **Kakatiya Empire**, one of the most notable dynasties in South India.
  - It was built by **Recherla Rudra**, a military general under the rule of **King Ganapati Deva**.
  - The temple is dedicated to **Ramalingeswara Swamy**, a form of Lord Shiva, who is the presiding deity of the temple.
  - The temple is renowned not only for its spiritual significance but also for its architectural and artistic grandeur.
  - The name "Ramappa" is derived from **Ramappa**, the sculptor who worked on the temple for over **40 years**, contributing to the temple's intricate carvings and sculptures.
  - His contribution is a testament to the exceptional craftsmanship of Kakatiya sculptors.
- **Materials Used:**
  - The temple's **foundation** is built using the **"sandbox technique"**, a construction method that involves filling a pit with a mixture of sand-lime, jaggery, and **karakkaya (black myrobalan fruit)**, providing stability and durability to the structure.

- This technique also helps protect the temple from seismic activity, as the sand absorbs vibrations, thus safeguarding the building.
- The flooring is made of granite, ensuring the temple's robustness.
- The **pillars** of the temple are crafted from **basalt**, a volcanic rock, which adds to the structural strength of the temple.
- The **lower part of the temple** is constructed with **red sandstone**, giving the temple its characteristic color, while the **white gopuram (tower)** is made from **light bricks**, which are said to float on water, further showcasing the remarkable construction techniques of the time.
- **Distinct Kakatiya Style:**
  - The **Kakatiya style** is notable for its unique temple gateways, which are characterized by intricately designed proportions and aesthetic beauty.
    - This style is distinctive to the Kakatiya period and remains a prominent feature in temples across the region.
  - The **gateway design** is particularly revered for its balance and beauty, reflecting the highly evolved aesthetic sense of the Kakatiyas in both architecture and town planning.
- **Cultural and Global Recognition:**
  - The **Rudreswara Temple** has not only captivated the local population but has also been admired by **European merchants and travelers**.
  - One such traveler described it as the *"brightest star in the galaxy of medieval temples of the Deccan."*
- **UNESCO World Heritage Site status:** It has earned global recognition as the **39th UNESCO World Heritage Site** in India.



A **MASTERPIECE OF** HUMAN CREATIVE GENIUS

- Rudreshwara temple constructed between 12th & 13th centuries during the reign of the Kakatiya rulers Rudradeva and Recharla Rudra.
- The temple is dedicated to Lord Shiva and the presiding deity is Ramalingeswara Swamy
- It is also known as the Ramappa temple, after the sculptor who executed the work in the temple for 40 years.
- Built with sandstone and a sandbox foundation, the Rudreshwara temple has decorated beams and columns made of granite stone.
- The temple's unique feature is its Vimana constructed using porous bricks, which is in the shape of a pyramid.

## JYOTIBA PHULE

*Recently, November 28 marked the death anniversary of the renowned Indian activist and reformer, Jyotiba Phule.*

## About:

- **Birth and Early Life:**
  - Jyotirao Phule was born on 11th April 1827 in Pune, which was then part of the Bombay Presidency in British India.
  - He hailed from the Mali caste, traditionally involved in gardening and vegetable farming.
  - His family faced discrimination due to their low-caste status, which likely influenced his commitment to social justice and the eradication of caste-based inequalities.

- **Education:**
  - Phule was enrolled in the Scottish Missionary High School in Pune in 1841, where he completed his education.
  - His exposure to Western ideas, especially through the works of thinkers like Thomas Paine, helped shape his views on liberty, equality, and social justice.

- **Ideology:**
  - Phule's ideology was rooted in **liberty**, **egalitarianism**, and **socialism**.
  - He was deeply influenced by the book *The Rights of Man* by Thomas Paine and believed that social evils such as caste discrimination, untouchability, and gender inequality could only be overcome through the enlightenment of women and the lower castes.
  - His vision sought a society free of hierarchical structures, where all individuals had equal opportunities for education, justice, and empowerment.

- **Major Publications:** Phule wrote several influential works that highlighted the social inequalities and the need for reforms in India:
  - **Tritiya Ratna (1855):** A work addressing the plight of lower castes and advocating for their rights.
  - **Powada: Chatrapati Shivajiraje Bhosle Yancha (1869):** A ballad commemorating the life and struggles of the Maratha king, Shivaji.
  - **Gulamgiri (1873):** A powerful critique of the caste system and the exploitation of lower castes, advocating for the rights of Dalits.
  - **Shetkarayacha Aasud (1881):** A work discussing the issues faced by farmers in Maharashtra and calling for their social and economic upliftment.

- **Satyashodhak Samaj:**
  - In 1873, Phule founded the **Satyashodhak Samaj** (Society of Seekers of Truth), which aimed to promote the rights and welfare of lower-caste people.
  - The organization sought to empower oppressed communities by providing them with education and social rights.
  - It played a critical role in challenging caste-based discrimination and advocating for the abolition of untouchability.

- **Municipal Council Membership:**
  - He was appointed as a nominated member of the Poona City Municipality in 1876 and served until 1882.
  - During his tenure, he focused on improving the living conditions of the lower-caste people, working for their betterment in the fields of sanitation, water supply, and other municipal services.

- **Title of Mahatma:** On 11th May 1888, Phule was bestowed with the title of **Mahatma** by the social activist **Vithalrao Krishnaji Vandekar.**

- **Social Reforms:**
  - In 1848, Phule taught his wife, **Savitribai**, how to read and write, which was a radical step at a time when women, especially from lower-caste families, were not allowed to be educated.
    - Together, they opened the first **indigenously run school for girls** in Pune, providing an opportunity for girls, regardless of their caste, to receive an education.
  - By 1852, Phule and his wife had established three schools for girls, though they had to shut down by 1858 due to a shortage of funds following the Revolt of 1857.
  - Phule was also deeply concerned about the plight of widows and established an **ashram for young widows**.
    - He advocated for the remarriage of widows, which was a highly controversial idea in a society that viewed widowhood as a form of social death.
  - In 1868, Phule constructed a **common bathing tank** outside his house, symbolizing his inclusive approach toward all castes.

- **Death and Legacy:**
  - He passed away on **28th November 1890**.
  - His memorial is located at **Phule Wada** in Pune, Maharashtra.

## SAVITRIBAI PHULE

- **Early Life:**
  - Savitribai Phule was born on **January 3, 1831**, in a small village in **Satara district, Maharashtra**.
  - She was an Indian social reformer, poet, and an influential figure in the Indian freedom struggle.
- **Education:** Savitribai Phule trained as a teacher at **Ms. Farar's Institution** in **Ahmednagar** and **Ms. Mitchell's school** in **Pune,** making her the first female teacher in India.
- **Opening India's First School for Women:** In 1848, **Savitribai Phule** and her husband, **Jyotirao Phule**, opened **India's first school for women** in **Pune**.
- **Expansion of Education:** By **1851**, Savitribai was successfully running **18 schools** for children from different castes, with **150 girls** enrolled.
- **Campaigns Against Caste-based Discrimination:**
  - Savitribai Phule, alongside her husband, actively worked to dismantle **caste-based discrimination**.

- She played a crucial role in promoting **equality** for all, particularly through her involvement in **Satyashodhak Samaj**.
- **Mahila Seva Mandal and Women's Rights:**
  - In **1852**, Savitribai Phule initiated the **Mahila Seva Mandal**, a platform designed to raise awareness about **women's rights**.
  - This initiative was remarkable as it brought together women from **different castes**, challenging the deeply ingrained social hierarchies that marginalized women and lower-caste communities.
- **Opposition to Oppressive Customs:**
  - Savitribai Phule also fought against other oppressive social practices, such as the **dowry system** and **widowhood customs**.
  - She organized a **barbers' strike** in both **Mumbai** and **Pune** to protest the custom of shaving widows' heads, a symbolic act of resistance against the oppressive norms that victimized widows.
- **Founding of Balhatya Pratibandhak Griha:**
  - In **1863**, Savitribai and Jyotirao Phule established the **Balhatya Pratibandhak Griha**, India's first home that prohibited infanticide.
  - The home supported **pregnant widows** and **rape victims**, offering them shelter and support, furthering their cause of **women's rights** and **social justice**.
- **Literary Contributions:**
  - **Kavya Phule (1854):** A collection of her poems reflecting her progressive thoughts on society and social reform.
  - **Bavan Kashi Subodh Ratnakar (1892):** A compilation of her poetry that continued to emphasize the themes of **education**, **women's rights**, and **social justice**.
- **Famous Poem - 'Go Get Education':** One of her most famous works, the poem **'Go Get Education',** urged **backward and oppressed communities,** especially **Dalits** and women, to pursue **education** as a means to break free from the chains of oppression and gain social and economic independence.

## KORAGA TRIBAL COMMUNITY

*Recently, the Kerala government has launched a project named Operation Smile to provide land titles (patta) to the Koraga community.*

### About
- **Geographical Distribution:**
  - The **Koragas** are one of the **Particularly Vulnerable Tribal Groups (PVTG)** found in the **southern parts of India**, particularly in **Kerala** and **Karnataka**.

- They are primarily located in the coastal and forested regions of these states.
- **Language:** Most Koragas speak **Tulu**, a Dravidian language. However, they also have their own distinct language, which is independent and specific to their community.
- **Clan Structure:**
  - The Koraga people are divided into several **exogamous clans** or sects, known as **bali**.
  - There are **17 balis** among the Koragas, and members of each bali typically marry outside their clan, a practice that helps maintain genetic diversity within the community.
- **Economy:** The Koragas are primarily **agriculturists**, with their livelihoods depending on **agriculture** and the collection of **forest produce**, such as **bamboo**, **cane**, and **creepers**, which they use for **basketry** and other crafts.
- **Cultural Practices:**
  - The Koragas engage in **singing**, **folk dances**, **rituals**, and **magical practices** to **appease their deities**. These cultural expressions are aimed at ensuring **bountiful crops** and combating **epidemics**.
  - **Two prominent musical instruments central to their traditions are:**
    - **Dholu (drum):** Played during festivals and rituals, it provides rhythmic beats that drive the energy of their dances.
    - **Voote (flute):** Known for its melodious tones, it is used in storytelling and ceremonial performances.
- **Family Structure:** The family structure among the Koragas is **matrilineal**, meaning descent is traced through the **female line**.
  - However, **residence after marriage** is typically **patrilocal**, where the newly married couple resides with the husband's family.
- **Property Rights:** Property among the Koragas is **equally divided** between sons and daughters, reflecting a more egalitarian approach to inheritance within the community.
- **Religious Beliefs:**
  - The Koragas worship various **Bhutas** (local deities), which are integral to their spiritual practices. Some of the prominent deities they venerate include:
    - **Panjurli:** The boar deity associated with protection and fertility.
    - **Kallurti:** A powerful female deity often invoked for justice and guidance.
    - **Korathi:** A guardian deity specific to the Koragas, symbolizing strength and resilience.
    - **Guliga:** A fierce deity who safeguards against malevolent forces.
  - These deities are central to their cultural and religious rituals, and the **Bhuta Kola** (a ritual folk dance) is an important tradition among the Koragas, particularly in **Tulu Nadu**, where the community is located.

# 10 MISCELLANEOUS

## QS WORLD UNIVERSITY RANKINGS: ASIA 2025

*Recently, it was released, highlighting the top universities across Asia.*

### About:
- **The QS World University Rankings:** Asia (2025) assesses 984 institutions across 25 countries in Eastern, Southern, South-Eastern, and Central Asia.
- Compiled by **Quacquarelli Symonds (QS)**, an organization known for offering data, expertise, and solutions in the global higher education sector, these rankings highlight key indicators that reflect institutional quality.
- **Focus on key indicators:** Academic Reputation, Employer Reputation, Faculty-Student Ratio, and International Research Network to assess university quality and global impact.

### Indian Universities Ranking:
- India has **2 institutions** in the top 50 and 7 in the top 100.
- **Top Institutions:** Indian Institute of Technology Delhi (IITD) leads at 44th, followed by IIT Bombay at 48th.
  - Other top 100 institutions include IIT Madras (56), IIT Kharagpur (60), Indian Institute of Science (62), IIT Kanpur (67), and University of Delhi (81).
- **Notable Achievements:** IIT Delhi (44th) achieved a high employer reputation score of 99%.
  - IITBombay (48th) scored 99.5% in employer reputation and 96.6% in academic reputation.
  - University of Delhi rose from 94th to 81st, scoring 96.4% in the International Research Network.
- **Growth in Ranking Representation:** India has the highest number of institutes in the rankings, with a 318% increase in ranked institutions from 11 in 2015 to 46 in 2025.
- **Regional Dominance:** India leads in Southern Asia, with seven institutions in the region's top ten.

## SANYUKT VIMOCHAN 2024'

*The Indian Army successfully conducted the Sanyukt Vimochan 2024 in Gujarat.*

### About:
- It is a Multilateral Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise.

- It showcased India's disaster response readiness and involved various Indian armed forces, disaster management agencies, and foreign delegations.
- The **exercise began** with a **Table Top Exercise (TTX),** simulating a cyclone scenario in Gujarat's coastal region.
  - A **Tabletop Exercise (TTX)** is a discussion-based, simulated activity designed to assess and improve the preparedness and response capabilities of participants in managing specific scenarios, such as natural disasters, security incidents, or emergencies.
- It also featured a **Multi-Agency Capability Demonstration at Porbandar's Chowpatty Beach,** where coordinated logistics, rapid response, and disaster management operations were practiced by the Indian Army, Navy, Air Force, Coast Guard, and other agencies.
  - The demonstration included rescue operations, casualty evacuation, and the rehabilitation of affected citizens.

## WORLD ANTI-DOPING AGENCY (WADA)

*Recently, India hosted a 4-day Global Learning and Development Framework (GLDF) Results Management Training in collaboration with the World Anti-Doping Agency (WADA) in New Delhi.*

### About:
- **Establishment:** WADA was formally created on November 10, 1999, in Lausanne, Switzerland. It is a Swiss private law, not-for-profit foundation with its headquarters located in Montreal, Canada.
- **Governance Structure:**
  - **Foundation Board:** The 42-member Board is WADA's highest policy-making body, comprising representatives from the Olympic Movement (IOC, National Olympic Committees, International Sports Federations, and athletes) and governments from five continents.
  - **Executive Committee:** A 16-member ExCo, appointed by the Board, manages WADA's operations, oversees its activities, and administers its assets.
- **Core Objectives:** The agency's primary mission is to develop, harmonize, and coordinate anti-doping policies and rules across all sports and countries.
- **Key Activities:** WADA undertakes scientific research, educational initiatives, and capacity-building programs and monitors compliance with the World Anti-Doping Code.

- **Formation:** The foundation of WADA stems from events in 1998 that brought doping in cycling to global attention. In response, the International Olympic Committee (IOC) convened the First World Conference on Doping in Sport, held in Lausanne, Switzerland, from February 2-4, 1999.
- **Lausanne Declaration:** This declaration, adopted at the conference, called for the establishment of an independent international anti-doping agency, operational in time for the Sydney 2000 Olympics.

## NADA

- **Establishment:** Established in 2009, NADA functions as an autonomous body under the Ministry of Youth Affairs & Sports, Government of India.
- **Collaboration:** NADA works in partnership with organizations like the National Dope Testing Laboratory (NDTL), Indian Olympic Association (IOA), and South Asian Regional Anti-Doping Organisation (SARADO) to strengthen anti-doping measures.
- **Role and Responsibility:**
  - NADA is India's national organization responsible for overseeing the doping control program in sports.
  - Its primary goal is to ensure fair play by preventing doping, which involves the use of banned substances or methods to enhance athletic performance.
  - It aligns its anti-doping policies and rules with the World Anti-Doping Agency (WADA), the global authority on anti-doping efforts.
- **Key Features:**
  - **Testing:** Conducts doping tests both during and outside competitions at national and international levels.
  - **Prohibited List:** Updates and enforces a list of banned substances and methods based on WADA guidelines.
  - **Results and Sanctions:** Handles test results and imposes penalties for anti-doping rule violations.
  - **Therapeutic Use Exemptions (TUEs):** Allows exemptions for athletes with valid medical needs for banned substances.
  - **Education and Awareness:** Organizes campaigns and events to educate athletes, coaches, and the public about doping risks and regulations.
  - **Research and Development:** Supports research to improve doping detection and prevention techniques.

## BOOKER PRIZE 2024

*Britain's Samantha Harvey won the 2024 Booker Prize for her novel Orbital, which she wrote during the COVID-19 lockdowns. The story depicts a single day aboard the International Space Station, capturing the beauty of Earth from space.*

**About:**

- **Founding and Scope:** Established in the UK in 1969, the Booker Prize initially recognized Commonwealth authors but is now open to writers globally.
- **Eligibility:** Awarded to the best sustained work of fiction in English, published in the UK and Ireland, regardless of the author's nationality.
- **Judging Criteria:** Judges seek a book that resonates with contemporary times and has lasting literary significance.
- **Prize Money:** Winner: £50,000
  - *Shortlisted authors:* £2,500 each
- **Sponsorship:** The prizes are funded by Crankstart.

## INDIRA GANDHI PEACE PRIZE 2023

*The Indira Gandhi Prize for Peace, Disarmament and Development for 2023 was presented to Daniel Barenboim and Ali Abu Awwad.*

**About:**

- **Abu Awwad** is an eminent **Palestinian peace activist** who has been working for a peaceful resolution of the ongoing conflict in the Middle East.
- **Barenboim**, an Argentine-born distinguished **classical pianist**, is known for his endeavour in using music to foster harmony in West Asia.

### The Indira Gandhi Prize for Peace, Disarmament, and Development:

- **Introduction:** Instituted in 1986, the Indira Gandhi Prize is awarded annually by the Indira Gandhi Memorial Trust. It recognizes outstanding contributions to humanity and environmental sustainability.
- **Award Components:** The prize includes a monetary award of ₹25 lakh and a citation.
- **Significance of the Award:** Named after Indira Gandhi, the first woman Prime Minister of independent India, it honors individuals and institutions for exemplary service to humanity and the planet.
- **Selection Process:** Recipients are chosen from a diverse pool of national and international nominees.
- **Recent Laureates:** In 2023, the award was jointly presented to the Indian Medical Association (IMA) and the Trained Nurses Association of India (TNAI) in recognition of their efforts as COVID-19 warriors.

## CYANOBACTERIA

*Recently, a new strain of Cyanobacteria called "Chonkus" has been discovered, notable for its potential in carbon capture.*

## About:

- **Definition:** Cyanobacteria, also known as **blue-green algae**, are a group of **photosynthetic microorganisms** found in a wide range of environments. Despite their name, they are not true algae but bacteria that possess the ability to perform photosynthesis.
- **Photosynthesis:** Like plants, **cyanobacteria** convert **sunlight** and **carbon dioxide (CO2)** into **food** (organic compounds), making them crucial players in the Earth's **carbon cycle** and **oxygen production**.
- **Significance of Discovery:**
  - **Carbon Sequestration Projects**
    - Cyanobacteria's ability to absorb **CO2** efficiently makes them a valuable resource for **carbon sequestration**.
    - They can help store carbon long-term by settling at the **bottom of bodies of water**, potentially assisting in the reduction of **greenhouse gases** in the atmosphere and combating **climate change**.
  - **Bioproduction:**
    - Cyanobacteria's properties can be harnessed in **bioproduction**, including the production of **biofuels**, **food supplements**, and other valuable materials.
    - Their ability to produce **biomass** quickly and efficiently makes them a promising resource for creating **sustainable** alternatives to fossil fuels and other industries.

## 'HEALTHY LONGEVITY INITIATIVE' REPORT

*The World Bank's 2024 report, Unlocking the Power of Healthy Longevity, highlights a rapidly aging population and the rise of Non Communicable Diseases(NCD) in Low- and Middle-Income Countries (LMICs).*

### About:

- The report highlights that **addressing NCDs**, such as heart disease, diabetes, and cancer, is essential for **achieving healthy longevity and sustaining human capital** in r**apidly aging populations.**
- And, reduced health funding in India and other LMICs may **hinder achieving SDG targets**, especially as general government spending rises faster than health allocations.

### Key Points of Report:

- **Impact of NCDs:** NCDs now account for over 70% of global deaths annually, and this trend is set to continue. By 2050, the total number of deaths is projected to rise from 61 million in 2023 to 92 million, further highlighting the need for urgent interventions.
- **Health Spending: Between 2019 and 2023**, **per capita health spending grew modestly**—0.4% in LICs and 0.9% in LMICs—compared to pre-pandemic growth rates of 4.2% and 2.4%, respectively. In India, the share of health in the total budget **dropped below 2% post-pandemic**, reaching **around 1.75–1.85%.**

| DIFFERENCE BETWEEN COMMUNICABLE AND NON COMMUNICABLE DISEASE | | |
|---|---|---|
| **Aspect** | **Communicable Diseases** | **Non-Communicable Diseases (NCDs)** |
| **Definition** | Illnesses caused by infectious agents (bacteria, viruses, fungi, or parasites) and can be transmitted between individuals or via vectors. | Chronic diseases that are not infectious and cannot spread between individuals. |
| **Mode of Transmission** | Spread through direct contact, bodily fluids, airborne particles, contaminated food/water, or vectors like mosquitoes. | Do not spread from person to person; caused by lifestyle, genetic, or environmental factors. |
| **Duration** | Often acute (short-term), though some can become chronic (e.g., HIV). | Usually long-term or lifelong, with slow progression. |
| **Examples** | Tuberculosis, HIV/AIDS, malaria, influenza, COVID-19. | Cardiovascular diseases, diabetes, cancer, chronic respiratory diseases. |
| **Causes** | Caused by infectious organisms like bacteria, viruses, or parasites. | Caused by genetic predisposition, poor lifestyle choices, or environmental factors. |
| **Prevention** | Vaccination, hygiene practices, safe food and water, and controlling vectors. | Healthy diet, regular exercise, avoiding tobacco/alcohol, and managing risk factors like high blood pressure. |

## Supreme Court Judgements:

- **Dr Balram Singh and ors v Union of India Case:** SC upheld the inclusion of 'socialist and secular' in the Preamble of the Constitution.
- **Property Owners Association v. State of Maharashtra Case:** The Supreme Court ruled that not all private properties can be considered "material resources of the community" under Article 39(b) of the Constitution.

## CAG:

- K Sanjay Murthy Appointed as the CAG.
- **Art. 148 (Appointment):** The President shall appoint the CAG of India through a warrant under his hand and seal.
- **Art. 151 (Report to President):** The CAG's reports concerning the union's accounts are to be presented to the President, who will then ensure their presentation before both Houses of Parliament.

## Mechanisms for Centre-State Cooperation:

- **Inter-State Council:** It is established under **Article 263** of the Constitution, which authorizes the President of India to create such a body to enhance coordination among states.
  - The ISC for the first time was formally established in 1990 by a presidential order based on the recommendations of the **Sarkaria Commission** on center-state relations.
- **Zonal Councils:** Established under the States Reorganisation Act of 1956, these statutory bodies promote interstate cooperation and coordination.
- **River Water Dispute Tribunals:** Constituted under the Inter-State River Water Disputes Act, 1956, these tribunals address conflicts between states over river water sharing.
- **Article 262** of the Constitution empowers Parliament to legislate on the adjudication of disputes regarding the use, distribution, or control of inter-state rivers and river valleys.
- **GST Council:** Established under Article 279A of the Constitution, this constitutional body addresses key issues related to GST implementation in India.

## Overcrowding in Jails:

- According to the NCRB's report Prison Statistics India 2022, Indian prisons had an occupancy rate of 131%, with 5,73,220 inmates against a capacity of 4,36,266.
- 4,34,302 are undertrials against whom cases are still pending, amounting to nearly 75.8% of all prisoners in India.
- As of December 31, 2022, around 8.6% of all undertrial prisoners had been in prison for more than three years.

## India-Spain Relation:

- Spain is India's 6th largest trade partner in Europe. Bilateral trade reached US$ 9.9 billion in 2023.
- India´s exports stood at US$ 7.17 billion while imports stood at US$ 2.74 billion during the same period.
- Indian exports to Spain include organic chemicals, iron and steel products, and textiles, while imports include machinery, vehicles, and olive oil.

## India-Mediterranean Relations:

- Trade between India and Mediterranean countries is robust, valued at approximately $78 billion in 2023-24.
- The Mediterranean is home to a significant Indian diaspora, particularly in Italy where about 40% of the region's Indian population reside.

## India-Nigeria Relation:

- Over 200 Indian companies have invested around $27 billion in Nigeria, particularly in
- manufacturing. This makes Indian companies the second-largest employers after Nigeria's Federal Government.
- India has extended concessional loans worth $100 million to Nigeria and facilitated capacity-building programs, strengthening the economic relationship.

## Telecommunication Sector in India:

- India is the second-largest telecom industry globally, with a user base of 1.19 billion subscribers.
- India's overall tele-density is at 84.69%, with rural tele-density at 58.48% and urban tele-density at 131.86%.
- Total internet subscribers (narrowband + broadband) have crossed 969 million, with 42% of subscribers located in rural areas.
- Average monthly data consumption per wireless user has surged from 61.66 MB (March 2014) to 17.36 GB (March 2023)

## World Intellectual Property Report 2024:

- In 2023, India topped the list of the 20 fastest-growing origins for patent applications, achieving a 15.7% growth rate. This marks five consecutive years of double-digit growth.
- Globally, India secured the sixth position with 64,480 patent applications, over 55.2% of which were filed by resident applicants—a milestone for the country.
- India witnessed a 149.4% increase in patent grants, reflecting the rapid evolution and strengthening of its IP ecosystem.
- A notable 36.4% rise in industrial design applications signified advancements in manufacturing, product design, and creative industries.

# Test Yourself

## Objective Questions

*Visit: www.nextias.com for monthly compilation of Current based MCQs*

## Mains Questions

### PAPER-I

1. Examine the architectural significance of the Ramappa Temple, highlighting its unique features and contribution to South Indian temple architecture. **(15 Marks, 250 Words)**

2. Discuss the role of Guru Tegh Bahadur in defending religious freedom also discuss his contributions to Sikhism. **(10 Marks, 150 Words)**

3. Analyze how Sardar Vallabhbhai Patel's philosophy of unity and integration influenced India's post-independence policies. **(10 Marks, 150 Words)**

4. Discuss the environmental risks associated with Himalayan glacial lakes, including the threat of glacial lake outburst floods (GLOFs). **(15 Marks, 250 Words)**

5. Examine the potential benefits and drawbacks of banning social media for children, focusing on mental health and developmental impacts. **(10 Marks, 150 Words)**

6. Examine the causes and effects of heatwaves in India, focusing on their impact on agriculture, health, and urban environments. **(15 Marks, 250 Words)**

### PAPER-II

7. Discuss the salient features of the Indian Constitution, emphasizing its unique blend of rigidity and flexibility. **(10 Marks, 150 Words)**

8. Compare the process of presidential elections in the United States and India, focusing on their similarities and differences. **(15 Marks, 250 Words)**

9. Analyze the challenges in implementing the Rights of Persons with Disabilities (RPWD) Act, 2016, and suggest measures to overcome them. **(10 Marks, 150 Words)**

10. Analyze how Supreme Court judgments have shaped the understanding of the Preamble as an integral part of the Indian Constitution. **(10 Marks, 150 Words)**

11. Discuss the significance of the 44th Amendment in altering the status of the Right to Property in India and its socio-economic impact. **(10 Marks, 150 Words)**

12. Examine the constitutional role and significance of the Comptroller and Auditor General (CAG) in ensuring accountability in India's governance. **(15 Marks, 250 Words)**

13. Discuss the relevance of the Inter-State Council in addressing inter-state disputes and fostering better Centre-State relations. **(10 Marks, 150 Words)**

14. Evaluate the challenges and opportunities in India-Spain bilateral relations and their implications for future cooperation. **(15 Marks, 250 Words)**

### PAPER-III

15. Analyze the effectiveness of policies and measures implemented to tackle Delhi's air pollution crisis. **(15 Marks, 250 Words)**

16. Examine the key provisions of the Telecommunications (Telecom Cyber Security) Rules, 2024, and their role in enhancing cyber security in the telecom sector. **(10 Marks, 150 Words)**

17. Analyze the role of cooperatives in India's rural economy and the obstacles they face in achieving their potential. **(15 Marks, 250 Words)**

18. Discuss the role of animal husbandry in India's rural development and the challenges highlighted in the Basic Animal Husbandry Statistics 2024. **(10 Marks, 150 Words)**

19. Examine the factors contributing to stagnant rural wages in India and their implications for rural development and poverty alleviation. **(15 Marks, 250 Words)**

20. Examine the key outcomes of COP29 under the UN Framework Convention on Climate Change and their impact on global climate policy. **(15 Marks, 250 Words)**