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Table of Contents

NOTE:

Dear Students,

Memorisation and recollection of information in Current Affairs is as important as understanding the articles. In order to enhance the learning outcomes from the Monthly Current Affairs Magazine, we are introducing following additions:

A thematic based colors has been used in the document in the boxes, tables etc to enable easy identification and recollection of various concepts and topics.

Questions are an important tool to assess and retain information. To enable this we are adding a Smart Quiz at the end of each section in the document for practicing the questions.

A wide variety of infographics have been added to ensure smoother learning experience and enhanced retention of the information. This will also help in effective presentation of information in the answer writing as well.

Places and persons in news are being presented in an objective manner through Maps, Tables & Pictures. This will help in easier recollection of factual information.

1. POLITY AND GOVERNANCE

1.1. CAPACITY BUILDING OF URBAN LOCAL BODIES (ULBS)

Why in the news?

Recently, the Capacity Building Commission (CBC) in collaboration with MoHUA organized a National Workshop on Capacity Building of ULBs to **foster a unified approach to capacity building ULBs** across India.

More on news

- The Workshop marked the **launch of three key initiatives**, i.e.,
  - **Annual Capacity Building Plan (ACBP) to enhance the capabilities of MoHUA.**
  - **ACBP for 6 pilot ULBs** i.e. Ahmedabad, Bhubaneswar, Mysuru, Rajkot, Nagpur, and Pune.
  - **Comprehensive Toolkit for preparing Capacity Building Plans for ULBs** for providing valuable resources to facilitate the growth and development of ULBs.

Capacity Building Commission (CBC)

Genesis: Constituted through Gazette of India in 2021.

About: Established as an **independent body with complete executive and financial autonomy.**
- It is key component of National Programme for Civil Services Capacity Building (NPCSCB) – Mission Karmayogi.
- Serviced by **Department of Personnel and Training.**

Purpose: To **build credibility and shape a uniform approach** to capacity building on a collaborative and co-sharing basis.

Composition: **Chairperson and two Members.**
- Terms and conditions of service of Chairperson and Members shall be as notified from time to time.

Secretariat: Headed by a Secretary (in grade of Joint Secretary to Government of India) with other requisite staff as approved from time to time.

Functions and Responsibilities:
- **Coordinate with Departments of Government** for evolving a **harmonious de-siloed approach** to improve capacity and build shared resources.
- **Prepare Annual HR Report on health of Civil Services** along with target achievement.
- **Undertake Audit of Human Resources** available in Government

About Urban Local Bodies

- ULBs are **small local bodies that administer or govern a city or a town** of a specified population.
  - o **Urban governance (Local Government)** is part of the **state list (Entry number 5)** under the Constitution. Thus, the **administrative framework and regulation of ULBs varies across states.**
- **Constitution (74th Amendment) Act, 1992,** formally recognised **urban local governments as the third tier of government.**
  - o The Act provided for the **establishment of three types of ULBs:**
    - ✓ **Nagar panchayats** for a 'transitional area'
    - ✓ **Municipal councils** for a 'smaller urban area' and
    - ✓ **Municipal corporations** for a 'larger urban area'.
  - o It **empowered state governments** to devolve certain functions, authority, and power to collect revenue from these bodies and made periodic elections for them compulsory.
  - o **Functions of ULBs include** urban planning including town planning, regulation of land use and construction of buildings, roads and bridges, urban poverty alleviation etc.

Need for Capacity Building for ULBs

- To deal with regional aspirations i.e. economic and social development through bottom up planning
- India's urban centres are considered 'engines of growth,' as they account for nearly **two-thirds of the country's economic growth**
- India's urban population is expected to almost double from 460 million in 2018 to 876 million by 2050
- For successful and effective implementation of schemes like Smart City Mission, AMRUT Mission etc.
- Streamlining planning process and delineation of institutional roles, relationships for ULBs to meaningfully shape local and regional plans

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Measures taken for capacity building of ULBs
- **Capacity Building Scheme for Urban Local Bodies (CBULB)**: It aims to strengthen urban local governments through capacity building for better governance and financial management as articulated in the 11th Five Year Plan.
- **World Bank-assisted Capacity Building for Urban Development (CBUD) Project:** Its objective is **to build the capacity of select ULBs, which are centres of economic growth,** improve their skills for better urban management and reduce urban poverty.
- **National Urban Digital Mission:** Launched in 2021 by MoHUA, it focuses on citizen-centric **digital revolution in ULBs** in India. It aims to create a **shared digital infrastructure** working across **three pillars of 'People, Processes and Platform'** to provide a framework for digital governance in the country.
  - o **National Institute of Urban Affairs (NIUA)** has been appointed to anchor this mission.
  - o Established in 1976, NIUA is a premier institute for **research, training and information dissemination** in urban development and management.
- **Jawaharlal Nehru National Urban Renewal Mission (JNNURM):** Focuses on **efficiency in urban infrastructure and service delivery mechanisms**, community participation, and accountability of ULBs/ Parastatal agencies towards citizens.
- **Municipal Bonds**: These are **financial instruments that municipal corporations and other associated bodies in India issue to raise funds**.

Challenges associated with Capacity Building of Urban Local Bodies

- **Lack of skills:** The personnel engaged in managing urban affairs and municipal services **lacks specific skills, especially in areas like socio-economic planning, sustainable urban planning**, financial management, and e-governance.
- **Training Curricula:** Capacity gaps in municipal employees are augmented by **capacity-building deficits in the training institutions.** Training curricula are programme-centric or event-based, limiting their utility and further hampering the development of specific skills.
  - o Also, **States' training institutes focus more on general and rural administration** rather than on urban governance.
- **Lack of awareness and participation:** The disconnect between citizens and ULBs hampers effective communication. This cuts the feedback channel from the citizens, which could act as a key motivator for capacity building.
- **Partial Devolution:** The 73rd and 74th Amendment Act enlists the function of local governance bodies. However, in practice, there is a **lack of devolution of financial authority** resulting in local authorities having greater responsibilities without financial means to fulfil it.

- o For instance, poor finances of Bihar's ULBs are due to **delays in the release of grants, inadequate devolution of funds, and delays in the revision of tax rates** and assessments of landholdings.

Way forward

- **Training:** Quality training material offering a mix of classroom-based training and on-field training ought to be designed.
  - o Engaging private, academic and non-governmental training and research organisations can further bridge the shortage of capacity-building institutions.
- **Professionalism:** Developing a cadre system and provide **specific training** to create a strong and efficient workforce in municipal departments e.g. engineering disciplines.
  - o Also, **lateral hiring** of professionals **with special skills** can be explored into the municipal cadre, especially the larger ULBs for fostering greater municipal professionalism.

Skills to be imparted to urban planners

Quantitative & qualitative research	Project structuring	Strategic planning	Consensus building and moderation
Surveying & mapping	Critical thinking	Financial modelling	Leadership & team management
Policy development	Problem solving ability for multi-sectoral issues	GIS & Remote sensing	Project Evaluation & monitoring
Documentation and visual presentation	Multi-disciplinary awareness	Regulatory & legal frameworks	Communication & persuasion

Technical Skills ⟷ Managerial Skills

- **Awareness generation:** Steps should be taken to **mobilize citizens, ensure active participation** and generate awareness among the public by organising campaigns, engaging academic institutions, NGOs etc.
- **Fiscal Decentralisation:** The concept of financial decentralisation is a necessary aspect of **effective functioning of Local Governance**. The focus should be on **providing autonomy in matters of expenditures** along with resource mobilisation as far as possible.
  - o This will **enhance local institutions' ability to allocate funds** for training, and carry out developmental tasks effectively.
- **Convergence:** Institutionalising structures of local bodies to **enhance coordination among local governance bodies and bring synergy**. This will indirectly increase the institutional as well as human resource capacity of the ULBs.

1.2. CRIMINALIZATION OF POLITICS

Why in the News?

Recently released a report titled '**Analysis of Sitting MPs from Lok Sabha and Rajya Sabha of India 2023' was released.**

More about News

- It was released by the **Association for Democratic Reforms (ADR) and National Election Watch**.
- **Key Findings**
  - o **Sitting MPs with criminal cases: 40%** of Sitting MPs have declared criminal cases against themselves.
  - o **Sitting MPs with serious criminal cases: 25%** of Sitting MPs have declared serious criminal cases including cases related to murder, attempt to murder, etc.
  - o **State with Highest Percentage of Sitting MPs with Criminal Cases:** Highest Percentage of Sitting MPs with Criminal Cases in State/UTs: Lakshadweep>Kerala>Bihar>Maharashtra.
- **ADR** was **established in 1999** by a group of professors from the Indian Institute of Management (IIM) Ahmedabad.
  - o Its goal is to improve **governance and strengthen democracy** by continuous work in the area of Electoral and Political Reforms.

Impact of Criminalization of Politics

- **Institutionalized corruption and trust erosion**: Corruption thrives when the rule of law is disregarded and paired with the criminality of politics.
  - India ranked **85th out of 180** countries, according to the 2022 **Corruption Perceptions Index** reported by Transparency International.
  - Also, when politicians with criminal backgrounds hold public office, it can erode public trust in the political system.

Criminalization of Politics

What: 2nd Second Administrative Reforms Commission in its 4th Report **Ethics in Governance** stated it as 'participation of criminals in the electoral process'.

Factors behind criminialisation of politics

- **Nexus:** Nexus between the criminal gangs, police, bureaucracy and politicians.
- **Muscle Power:** Criminals are used by political parties and independent candidates to spend enormous sums of money on vote buying and other illegal activities.
- **Winnability:** As per ADR report chance of winning is twice compare to other candidates.
- **Denial of Justice and Rule of Law:** Due to inordinate delays lasting over years and high costs in the judicial process
- **Vote Bank:** Political parties courting criminals and offering them cabinet positions in exchange for votes.
- **Money Power:** Due to low Statutory limit for election expenses,for more expenses candidates often take criminal help.
- **Other Factor:** Corruption, nexus between criminals and politicians, etc.

- **Criminalization of Political Parties:** This is because the **criminal elements** can gain **control of political parties** and using them for their benefit. **Inner-party democracy** also gets adversely impacted.
- **Affects working of investigation and prosecution agencies:** Nexus between criminal-politician has the tendency to influence the working of agencies.
  - The Supreme Court in 2017 termed Central Bureau of Investigation as a "**caged parrot**" and "**its master's voice".**
- **Decline in conviction rate:** As per **SC amicus curiae report (2022)-** 5,097 cases are pending against lawmakers across the country.
- **Affect conducting of free and fair elections:** Due to the use of money and muscle power in elections by criminals the elections are not conducted in a free and a fair manner.
  - The Centre for Media Studies reported that around **$8 billion** was spent during 2019 Lok Sabha general elections.

Measures to check Criminalization of Politics

- **Legislative Measures: Section 8(3) of the Representation of People Act, 1951** says any lawmaker sentenced to at least two years in jail remains disqualified for six years upon their release.
  - Such a disqualification is enabled by **Article 102 (1)** of the Constitution of India, which says a lawmaker can be disqualified under any law enacted by the Parliament.
  - Similar provision exists for the states under **Article 191(1)**.
- **Judicial Pronouncements**
  - **Union of India vs. Association for Democratic Reforms (2002):** SC stated that electors have a fundamental right to know the antecedents of candidates. It states '**right to be informed'** as a right flowing from freedom of speech and expression.
  - **Peoples Union for Civil Liberties (PUCL) v Union of India (2004):** SC declared **Section 33B** of Representation of Peoples Act 1951 as **unconstitutional** and **void**.

> **Various Commission/committees Electoral reforms:**
> - **N.N. Vohra Committee Report (1993)** on Criminalization of Politics stated that the nexus between the criminal gangs, police, bureaucracy and politicians has come out clearly in various parts of the country.
> - **Other Commissions:** National Commission to Review the Working of the Constitution (2001), Second Administrative Reforms Commission (2008), etc.

- ✓ The section allowed candidates to furnish information only under the Act.
  - o **Lily Thomas v Union of India (2013):** SC ruled that **Section 8(4) of the** Representation of People Act **(1951)** as unconstitutional.
    - ✓ **Section 8(4) of the RP Act** earlier allowed convicted MPs, MLAs and MLCs to continue in their posts, provided they appealed against their conviction/sentence in higher courts within **three months of the date of judgment by the trial court.**
  - o **Public Interest Foundation v. Union of India (2018):** SC ordered **political parties** to publish the criminal records of their candidates on their websites, social media handles, and newspapers.
  - o **Rambabu Singh Thakur v Sunil Arora (2020):** SC re-iterated the Court's 2018 directions and directed the Election Commission to report to the Supreme Court any non-compliance by political parties.

Way forward

- **Lifetime ban for convicts from polls:** Election Commission of India had mentioned it in the electoral reforms proposals published by it in 2004 and 2016.
- **Hybrid electoral System:** As suggested by **170th** Law Commission Report on the hybrid system i.e., 75% through first past the post (FPTP) and 25% through proportional system.
  - o As per experts, FPTP encourages candidates to spend humongous amount in every election.
- **Punishment for filing of false affidavits:** The Law Commission in its **244th Report titled 'Electoral Disqualification'**, suggested punishment should be enhanced to a minimum 2 years imprisonment and such an offence must also be made a ground for disqualification.
- **Internal democracy for political parties:** The National Commission to Review the Working of the Constitution (NCRWC) Report suggested a dedicated legislation for inner-party democracy.
- **Amending the Representation of The People Act, 1950:** To debar the persons from contesting elections against whom heinous nature crimes are pending.
- **Other Reforms:** Right to recall, State funding of elections, Fast tracking judicial process, etc. for improving the election ecosystem of India.

Related News

Association for Democratic Reforms (ADR) and National Election Watch also released report '**Analysis of Sitting MPs/MLAs with Declared Cases Related to Hate Speech'.**

- **Key highlights:** A total of 107 Current MPs (33) and MLAs (74) have declared cases related to hate speech.

About Hate Speech

- The Law Commission Report no. 267 of March 2017 on Hate Speech states that "**Hate Speech**" has not been defined in any law in India.
  - o However, legal provisions in certain legislations (like Section 153A, 153B, 295A of IPC) prohibit select forms of speech as an exception to freedom of speech.

1.3. PARLIAMENTARY PRIVILEGES OF LAWMAKERS

Why in the news?

Recently, the Supreme Court **set up a seven-judge bench** headed by the Chief Justice of India for **reconsideration of its 1998 five-judge Constitution bench judgement in the P V Narasimha Rao case.**

More on the news

- The 1998 judgement of the P V Narasimha Rao vs. State case came in the backdrop of the **1993 JMM (Jharkhand Mukti Morcha) bribery case.**
- As per the judgement, **legal immunity granted to legislators** under **Articles 105(2) and 194(2)** of the Constitution **protects them against criminal prosecution on bribery charges** for any speech or vote in Parliament.
  - o SC has now decided to reconsider this precedent.

About Parliamentary Privileges

- Parliamentary privileges are a **legal immunity enjoyed by members of legislatures**, in which **legislators are granted protection against civil or criminal liability** for certain actions done or statements made in the course of their legislative duties.

- So far, **neither Parliament nor any State legislature has enacted any legislation that defines the powers, privileges and immunities of the Houses**, or that of its members and committees.
  - It should be noted here that the Parliament, till now, has not made any special law to exhaustively codify all the privileges. They are based on five sources, namely,
    - ✓ Constitutional provisions,
    - ✓ Various laws made by Parliament,
    - ✓ Rules of both the Houses,
    - ✓ Parliamentary conventions, and
    - ✓ Judicial interpretations.
- **Parliament** is the **sole authority to ascertain** if there has been a **breach or contempt of the House**— no court is entrusted with this power.
  - A **member of the House can raise a question involving a breach of privilege** with the consent of the Chairman or Speaker.

Breach of privilege
- If an individual or authority disregards or **undermines a parliamentary privilege of a member or the House**, it is called a **'Breach of privilege'**.

Contempt of the House
- Breach of privilege is **different from Contempt of the House**.
- It defined as "**any act or omission which-**
  - **obstructs** or impedes **either House of Parliament in the performance of its functions**, or
  - which **obstructs or impedes any member or officer** of such House in the discharge of his duty, or
  - which has a **tendency directly or indirectly, to produce such results**".

Punishment for a Breach of privilege or Contempt of the house
- A person found guilty of breach of privileges or contempt can be **reprimanded, warned or sent to prison**.
- The **period for which the House can commit an offender to custody** or prison for contempt is **limited to the duration of the session of the House.**
- In case its member is found guilty, **the MP can be suspended from the House or face expulsion.**

What are the provisions that grant legislators immunity from prosecution?

- **Article 105** deals with the powers and privileges of **both Houses of Parliament and its members** and committees.
  - Similarly, **Article 194** outlines the corresponding **powers, privileges and immunities of State legislatures and their members** and committees.
- **Right to Prohibit Publication of Proceedings: Article 105(2)** stipulates that **no person shall be liable in respect of the publication by or under the authority** of either House of Parliament of any report, paper, votes or proceedings".
  - A similar provision exists for **Members of the Legislature of a State under Article 194(2).**
- **Freedom of Speech in Parliament**: Freedom of speech available to the members on the floor of the House is **different from that available to the citizens under Article 19(2).**
  - **Article 105(2)** states that "**No member is liable to any proceedings in any court** for anything said or any vote given by him in Parliament or its committees". This freedom is **subject to the provisions of the Constitution** and to the **rules** and procedures of the parliament, as stated under Article 118 of the Constitution.
  - However, Article 121 restricts members from discussing the conduct of judges of the Supreme Court and High Court.
- **Freedom from Arrest**: Code of Civil Procedure, 1908 provides that members can enjoy freedom from arrest in **any civil case 40 days before and after the adjournment of the house** and also **when the house is in session**.
  - However, this privilege is **limited to civil cases**. An MP **doesn't enjoy any immunity against action in a criminal case,** during the session or otherwise.

Rationale Behind Parliamentary Privileges
- Ensure freedom of expression of the legislators without fear of legal consequences
- Ensure attendance of parliamentary sessions
- Maintain the authority, dignity of legislature
- Carry out functions independently and effectively of both the houses without any interference

- **Privileges based on Rules of Procedure and precedents**: Parliament reserves the right to receive immediate information of the arrest, detention, conviction, imprisonment, and release of a member on a criminal charge or for a criminal offence.
- **Right to Exclude Strangers**: Members of the house have the **power and right to exclude strangers who are not members of the house** from the proceedings. This right is essential for securing free and fair discussion in the house.
  o Also, as per the provisions of **Article 122**, the validity of any proceeding of Parliament can't be inquired into by a court on the grounds of alleged irregularity of procedure.

Need for reform in Parliamentary Privileges

- **Applicability:** The scope and limitations of parliamentary privilege are yet to be ascertained. In some instances, privileges shield lawmakers from prosecution as civil cases cannot be initiated when the House is in session.
- **Misuse:** There have been instances of **misuse of powers and rights by the members of the Parliament and Legislative Assembly** resulting in violation of fundamental rights of citizens.
- **Lack of oversight:** Absence of a clear mechanism to prevent members of the house from using privileges for personal or official gains/interest.
- **Lack of procedure:** Parliament has **yet to lay down a set of procedures to deal with instances of breach of privilege** and is solely guided by exigencies.
  o For example, lack of clarity on whether a hearing must be given to the accused or whether he/she must be given a right of legal representation etc.
- **Against Natural justice:** Breach of privilege laws **allows politicians to judge their own cases**. It leads to a conflict of interest, violates the principle of separation of Power under **Article 50** and goes against the tenants of a fair trial.
- **Violates constitutionalism**: The absence of codified privileges **gives unlimited power to the house** to decide when and how a breach of privilege occurs.

Way Forward

Providing immunity to parliamentarians is essential. However, urgent steps are required to ensure constitutionalism such as **codifying privileges, establishing standard operating procedures in case of breach of privilege** etc. Also, **Parliament can establish clear boundaries by enacting specific legislation** to monitor the misuse of parliamentary privileges by its members.

1.4. INTER-STATE WATER DISPUTE

Why in the news?

Recently, the Union Cabinet approved the terms of reference to **Krishna Water Disputes Tribunal-II (KWDT-II) under the Inter-State River Water Disputes (ISRWD) Act, 1956**.

More on news

- KWDT-II will distribute the Krishna water, allocated to 'undivided' Andhra Pradesh, between Telangana and Andhra Pradesh.
  o Krishna is an **east-flowing river that originates at Mahabaleshwar in Maharashtra** and merges with the Bay of Bengal, **flowing through Maharashtra, Karnataka, Telangana and Andhra Pradesh**.
- Also, the Supreme Court criticised the Punjab government for its **slow progress in constructing the Sutlej-Yamuna Link (SYL) canal** and asked the Centre to

> **About SYL canal and the associated issue**
> - SYL is a **214-km long canal for sharing waters of Ravi and Beas rivers** between Haryana and Punjab, of which 122 km was to be in Punjab and 92 km in Haryana.
>   o It was **planned in 1966 after Haryana was carved out of Punjab**.
> - Haryana completed its stretch of SYL Canal in 1980, while **Punjab kept citing Riparian Principles** and **non-availability of its water.**
>   o Riparian Principles states that owner of land adjacent to a water body has the right to use water.
> - Punjab argues that **many areas in state may go dry after 2029** due to over-exploitation of groundwater.
> - Haryana argues that its **southern parts of state are facing water problem due to depleted groundwater.** It claims that it has been **denied its rightful share in water**.

conduct a survey of the land designated for the canal to assess the work's status.

About Krishna Water Dispute

- In 1969, **Krishna Water Disputes Tribunal-I (KWDT)** was set up under the ISRWD Act, 1956. It divided **2060 TMC (Thousand Million Cubic feet) of Krishna water** at **75% dependability**.
  - 75% dependability of a catchment implies that **2060 TMC of water can be reliably extracted from a catchment area 75% of the time**, considering the natural variability in water availability due to factors such as precipitation, evaporation, and infiltration.
- **KWDT-II, instituted in 2004**, made allocations of Krishna water at **65% dependability and for surplus flows**.
- **In 2014** after the creation of Telangana as a separate state, **Andhra Pradesh asked to include Telangana as a separate party at KWDT** and that the allocation of Krishna waters be reworked among four states, instead of three.
  - However, **Maharashtra and Karnataka are now arguing** that Telangana was created following bifurcation of Andhra Pradesh. Therefore, the **allocation of water should be from Andhra Pradesh's share** which was approved by the tribunal.

Tribunals setup under ISRWD Act, 1956

Ravi & Beas Water Tribunal
States Concerned
Punjab, Haryana and Rajasthan

Narmada Water Disputes Tribunal
States Concerned
Rajasthan, Madhya Pradesh, Gujarat and Maharashtra

Mahadayi Water Disputes Tribunal
States Concerned
Goa, Karnataka and Maharashtra

Krishna Water Disputes Tribunal–II
States Concerned
Karnataka, Andhra Pradesh and Maharashtra

Vansadhara Water Disputes Tribunal
States Concerned
Andhra Pradesh & Orissa

Godavari Water Disputes Tribunal
States Concerned
Maharashtra, Andhra Pradesh, Karnataka, Madhya Pradesh & Orissa

Cauvery Water Disputes Tribunal
States Concerned
Kerala, Karnataka, Tamil Nadu and Puduchery

Factors responsible for Inter-State Water Dispute

- **Asymmetrical access to river water:** When a river flows across a boundary between the states, the upstream state is usually at an advantage. Creating an asymmetry between upstream and downstream states.
- **Rising Water Demand**: The total water demand in India is **projected to increase by 22% and 32% in 2025 and 2050 respectively.** The rising demand has put stress on limited water reserves further aggravating the Inter-State water dispute.
- **Lack of clarity on Water usage Rights**: Under Schedule VII of the Indian Constitution, the power to use water for storage, electricity, irrigation etc. is mentioned under the State list and 'interstate water' under the Union list.
  - However, these powers are interconnected and usage by one State affects usage by other States, thus creating ambiguity on water usage rights.
- **Lack of an integrated approach**: Water governance architecture in India is based on a fragmented piecemeal approach. It relies on numerical measures such as arithmetic hydrology, surplus, deficit etc. **ignoring the social, ecological, and cultural processes** associated with water.

- **Other issues:**
  - MSPs of **rice and wheat led to a manifold increase in water demand**, thereby resulting in interstate water conflicts (e.g. Krishna, Cauvery, Teesta basins or SYL between Punjab and Haryana).
  - **Boundaries** of states in India have continued to **alter, based on cultural and political factors**.

Mechanism to deal with Inter-State Water Dispute

- **Under Seventh Schedule of Constitution,**
  - **Entry 17 of State List reads "**Water, that is to say water supplies, irrigation and canals, drainage and embankments, water storage and water power **subject to the provisions of entry 56 of List I (Union List)".**
  - **Entry 56 of List I** provide that "**Regulation and development of inter-State rivers and river valleys** to the extent to which such regulation and development under the control of the Union is declared by Parliament by law to be expedient in the public interest".
- **Article 262:** It says that Parliament by law may provide for the **adjudication of any dispute or complaint with respect to the use, distribution or control over the waters** of, or in, any inter-state river or river valley. In the exercise of the power conferred by Article 262 of the Constitution, **Parliament has enacted two laws:**
  - **Inter-State Water Disputes (ISWD) Act, 1956**: Under it, a State Government which has a water dispute with another State Government may **request the Central Government to refer the dispute to a tribunal for adjudication**.
  - **River Boards Act, 1956**: It was made for the **setting up of River Boards by the central government** for the regulation and development of inter-state rivers and river valleys.
- **National Water Policy 2012:** It seeks to address issues such as scarcity of water, **inequities in its distribution** and the lack of a unified perspective in planning, management and use of water resources.

Challenges associated with resolving Inter-State Water Dispute

- **Delayed Resolution:** There are **prolonged proceedings and delays in the disposal** of river water disputes. For example, it took 11 years for the Godavari water dispute tribunal to give its decision.
- **Ambiguity: Article 262 deters the Supreme Court from adjudicating** interstate river water disputes. However, **Article 136 empowers the SC to hear appeals** against the tribunal's orders, further **causing ambiguity** in the implementation of tribunal orders.
- **Politicisation of disputes**: Some political parties are using interstate water disputes as **avenues for pursuing political goals**.
- **Lack of Multidisciplinary approach:** Tribunals in India primarily consists of members from the judiciary thus lack inputs from specialist such as ecologists hampering the quality of orders.

Way forward

- **Enabling Cooperation:** Fundamental strategic shift, away from the current reliance on conflict resolution is required. Also, there is a **need for deeper integration of states in deliberative processes**, and strengthening cooperative federalism.
- **Basin Approach:** Focus on ecological restoration, conservation of river ecosystem, balancing of water supply and demand for human use and regional approach for effective management of river water.
- **Multi-Disciplinary Approach:** Institutional structure of **Water Management Board should include experts from multiple disciplines** such as environmentalists, geographers etc. This will enhance the efficacy of water boards in providing ecological and environmentally friendly solutions.
- **Water Policy:** To resolve water disputes on reasonable and equitable lines, certain parameters must be made part of the water policy.
  - These parameters include the **extent of the river basin drainage area** in each State; **Contribution of water to the river basin** by each State; Climate and dependent population in the river basin; Extent of arid and semi-arid areas in each State etc.

1.5. ROLE OF TECHNOLOGY IN PUBLIC SERVICES DELIVERY

Why in the News?

The **Comptroller & Auditor General (CAG) of India** has emphasized on the need for increased **use of IT systems and technology** in service delivery to the citizens.

Technology and Linkage with public service delivery

- **Digital government services** (also called e-government) are defined as service delivery within government — as well as between government and the public — using information and communication technologies.
- **Traditionally, government services have been delivered in person**, by individual departments in different locations, and often using paper forms.
- With digital services, government can deliver information and services to citizens **anytime, anywhere, and on any platform or device.**
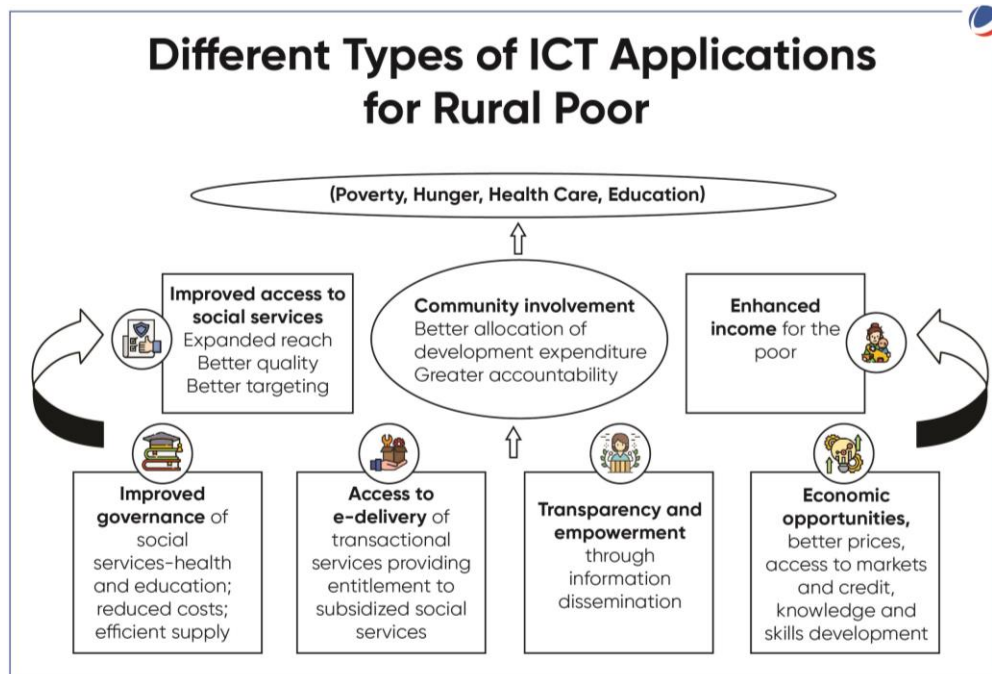
Significance of Technology in Services delivery

- **Saves time and money for the Citizens** as they need not travel to different government offices and stand in queues to get their work done
  - **e-Hastakshar service** facilitates instant e-signing of documents online by citizens in a legally acceptable form without having to visit government offices
- **Increases the efficiency of Government departments** as the digital records can be shared easily and maintained for later references
  - Vehicles Data from different State Registers are collected and processed in **VAHAN platform** of the **Ministry of Road Transport and Highways**
- **Eliminates the Ghost beneficiaries and leakages** to a larger extent as the digital records can be updated dynamically and the leakages can be traced back easily
  - The **linking the Aadhar cards to the respective job cards of MGNREGA**, lakhs of Ghost beneficiaries were identified and removed
- **Increases the accountability and reduces corruption**, as the origin or initiator of a particular transaction can be traced back to the system from where it began.
  - The detailed information available to the citizens in the platforms, **enables them to understand rules and regulations better** and even **raise complaints on erring officers**
- **The combination of data harnessed from various sources,** can be mined to design better public policies
  - The **linking of the PAN card and Aadhar card** helps the **exchequer to collect data on persons earning above a threshold** income for reducing black money and increasing the tax collection.

Technological challenges in service delivery

- **Digital divide** among the people, where a majority of them are yet to get accustomed to digital world and its applications.

- **Lack of skilled workforce** within the government, which makes it difficult for them to adapt technology at a major scale.
- **Cyber security threat**, is a major concern as these services are also to handle important data of government and public.
- **Lack of sufficient digital infrastructure** in the government establishments across the country.
- **Lack of interoperability** in most services makes them work in isolation rather than as a collective network.

Way forward

- **Enhancing the digital literacy** among the population and highlighting its advantage in the society.
- **Creating a skilled workforce** through various skilling programs in order to meet the demand.
- **Legal framework** to enhance the data protection within the country.
- **Enhancing the Cyber security** infrastructure in the country.
- **Improving the digital infrastructure and enhancing the interoperability** of the services to widen the scope of the services.

Scan the QR code to know more about **Role of Technology in Governance.**

Weekly Focus #95: Technology Governance– Forging a New Era of Public Policy

1.6. CONSUMER PROTECTION IN INDIA

Why in the news?

Recent finding suggests that the **pendency** in the consumer commissions has **shown a declining trend** (from 5.55 lakhs in December 2022 to 5.45 lakhs in September 2023).

Who is a Consumer?

- Under the Consumer Protection Act (CPA) 2019, a **consumer is a person who buys any goods or avails services** for a consideration, which has been **paid or promised, or partly paid and partly promised**, or under any scheme of deferred payment.
  - It applies to **both offline and online transactions** through electronic means or by teleshopping or direct selling or multilevel marketing.
- However, any person who **obtains goods or avails services for resale or commercial purposes** is **not treated as a consumer** and is outside the scope of CPA 2019.

Rights of a consumer (as given by CPA)

- The right to be informed
- The right to be heard
- The right to consumer education
- The right to safety
- The right to choose
- The right to redress

Responsibilities of a consumer

Kinds of Consumer Responsibilities

Consumers must exercise their rights

Caution consumer

Filing complaints of genuine grievances

Consumer Responsibilities

Insist on the bill

Consumers must be quality conscious

Cautious consumers do not buy blindly

Do not be affected by advertisements

Need for Consumer Protection in India

- **Informed Choice:** There has been an **increase in the supply of duplicate/defective products** in the market. CPA through its compliance mechanisms and rules encourages information dissemination about the products.
- **Checking Malpractices: Prevent and combat unfair trade practices such as black marketing and hoarding and** keep a check on practices that manipulate market prices.
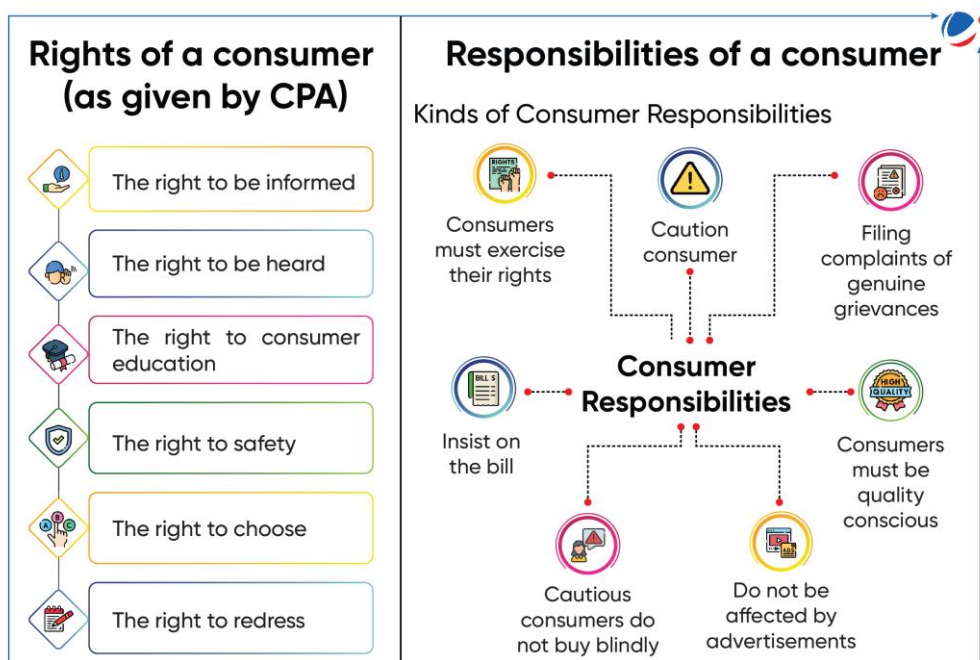
- o For instance, some **drug manufacturers charge high premiums** on essential medicines, negatively affecting the consumer. Also, some pharmaceutical companies misuse their patent rights to exploit consumers.
- **Misleading advertising:** Many businesses purposefully deceive consumers by presenting deceptive/false advertisements **giving consumers an incorrect or partial understanding of a product or service**. Thus, violating the consumers 'right to know' about what they are buying.
- **Grievance Redressal:** To provide effective redressal mechanisms for consumers and address complaints in cases such as the sale of adulterated products etc. and simultaneously hold the businesses accountable.
- **Economic growth and competitiveness:** Consumer protection contributes to dynamic and effective markets for businesses to grow.
- o **The resultant consumer demand in turn drives innovation and economic development** as businesses are required to maintain fair prices and good quality of their products and services.

Measures Taken for Consumer Protection in India

- **Consumer Protection Act (CPA) 2019**: It provides for the **Central Consumer Protection Authority (CCPA**) to regulate matters relating to violation of the rights of consumers, unfair trade practices etc.
- **Consumer Protection (Jurisdiction of District Commission, State Commission and National Commission) Rules, 2021**: To provide simple, speedy, and inexpensive redressal of consumer disputes, CPA 2019 envisages **3-tier quasi-judicial machinery at National, State and District levels**.
- **ConfoNet Project**: It stands for Computerization and Computer Networking of Consumer Fora in the country. It was implemented in the backdrop of CPA, 1986.
- o It aims to improve operational efficiency, coordination, accessibility, and speed in judicial administration and to set **Information Communication Technology (ICT) infrastructure at Consumer Redressal commissions** all over India.
- **Integrated Grievance Address Mechanism (INGRAM) portal**: It was developed under the aegis of the **Department of Consumer Affairs** to create **awareness, advise, and redress consumer grievances** and act as a **central registry** for lodging consumer grievances.
- **E-Daakhil Portal**: It provides a **hassle-free, speedy and inexpensive facility to consumers** around the country to conveniently approach the relevant consumer forum, dispensing the need to travel and be physically present.
- **Certification markers**: To protect and sensitize consumers regarding quality standards.

Different certification marks in India
Certification marks on a commercial product are usually called a **mark of validity or an assurance of the fact that the manufacturer has tested the product** and has ensured that it meets the given quality standard. **Bureau of Indian Standards (BIS),** which comes under the aegis of the International Organisation for Standardisation (ISO standards), **govern all industrial standardization and industrial product certifications** in India.

Icon of certification mark	Name of certification mark	Detail
ISI	ISI Mark	Issued by BIS for **consumer durable goods, electronic items, kitchen appliances,** etc.
	AGMARK	Issued by **Directorate of Marketing & Inspection (DMI),** Department of Agriculture for **agricultural commodities and livestock products.**
	BIS Hallmark	Issued by BIS for **gold jewellery.**
	Woolmark	**Signifies 100% pure wool.**
	ECO MARK	Issued by BIS for **environmental friendly products.**
FPO	FPO Mark	Issued by Food Safety and Standards Authority of India (FSSAI) for **food products.**
	India Organic	Issued by **Agricultural and Processed Food Products Export Development Authority** for organically farmed food products.

Challenges associated with Consumer Protection in India

- **Pendency in cases:** Despite the decreasing trend, the **absolute number of pending cases at both state and national levels is huge.** This results in long waiting periods and delays in dispute resolution.
- **Vacancies in institutions:** There is a **lack of infrastructure and manpower in consumer forums** (e.g., Pune, Delhi etc.), leading to inefficiency in addressing consumer complaints.
- **Issue of clarity vis-à-vis roles and powers:** There is a **lack of clarity regarding Central Consumer Protection Authority (CCPA)** roles related to investigations and inquiries and search and seizure function.
  - Also, the scope of CCPA powers in matters of investigation leading to product recall or penalisation of manufacturers is unclear.
- **Rights vs Duties:** The realisation of consumer responsibility towards ensuring the protection of their own interest along with the development of conscious consumerism is the essence of consumer protection. However, the **CPA does not lay down consumer duties/ responsibilities exclusively**.

Way Forward

- **Advertisements:** Governments should collaborate with manufacturers, distributors and consumer organizations, to **develop advertising codes and standards for regulating information** provided in advertisements.
- **Safety and Quality:** National **standards and regulations for product safety and quality should be reviewed** regularly to ensure conformity with international standards.
- **Awareness:** For safeguarding the well-being and interests of consumers through education, mobilization and representation.
  - The government in collaboration with NGOs should **publish periodicals to impart knowledge about consumer problems, legal reporting and redressal measures** and organise awareness campaigns. E.g. JagoGrahakJago.
- **Roles and Responsibilities:** CCPA's roles concerning investigations and inquiries and search and seizure operations should be clearly outlined in matters such as product recalls, appeals, etc.
- **Enlisting Duties:** Regulations can explicitly mention consumer duties to guide to ensure a responsible consumption ecosystem.
  - For example, the **Jamaican Government recognises both rights and duties of the consumer** and publishes these on their official website.

1.7. SCHEDULED TRIBES AND OTHER TRADITIONAL FOREST DWELLERS (RECOGNITION OF FOREST RIGHTS) ACT, 2006

Why in the News?

Recently it has been reported that the states have rejected nearly 40% of the land claims under **Forest Right Act**.

About Forest Right Act (FRA), 2006

Before the enactment of this act, earlier acts did not recognize the symbiotic relationship of the STs with the forests and their dependence on the forest.

- **Section 3(1)(a)** of the FRA recognizes the right of the forest **dwelling tribal communities (FDSTs)** and **other traditional forest dwellers (OTFDs)** to hold and live in the forest land for habitation or for self-cultivation for livelihood.
- **Types of Rights under Section 3 of FRA Act**
  - **Individual Forest Rights (IFR):** Right to hold and live in the forest land under the individual or common occupation for habitation or for self-cultivation for livelihood.
  - **Community Forest Rights (CFR):** Seeks to restore all customary and traditional usufruct rights of forest-dwelling communities.

Significance of Act

- Gave legal rights to land claims of **FDSTs/OTFDs**
- **Rights of displaced communities**
- **Community Rights** or rights over common property resources recognised
- **Rights over developmental activities**
- **Right to intellectual property and traditional knowledge** related to biodiversity and cultural diversity

- ✓ It will be within the **traditional or customary boundaries** of the village, irrespective of the ownership, classification, and size of forests.
  - o **Community forest resource management rights**: Right of ownership, access to collect, use, and dispose of **minor forest produce** which has been traditionally collected within or outside village boundaries.
- **Nodal Agency**: As per Act, the responsibility for implementation of the Act lies with **State Governments/UT Administrations**.
- **Role of Gram Sabha**: The Gram Sabha is the authority to initiate the process for determining the nature and extent of individual or community forest rights or both.
- **Land titles:** Act recognises the rights of an individual or family or community on the land however claim should not exceed more than **four hectares.**
  - o Land title given under the FRA is a **legal title.**
  - o Land Rights conferred by the Act were heritable **(Section 4(4) of FRA)**, but **not transferable or alienable.**
- **Diversion of forest land for local development rights:** Establishment of schools, dispensaries, or hospitals, Anganwadi centres, etc.

Do you Know?
- Dongria Kondh Adivasis used FRA in 2013, to protect their sacred lands in the **Niyamgiri forests** of Odisha and rejected the Vedanta's bauxite mining project.
- Earlier in **Orissa Mining Corporation vs Union of India (2013),** SC directed that Gram Sabha of region will decide about the project.

Three-tier approval process:

- **Gram sabha** is the primary authority for initiating the whole process by receiving and verifying the claims.
- Aggrieved person from the resolution of the Gram Sabha may file a petition to the **Sub-division-level committee (SDLC)**
- Any person aggrieved by the decision of the SDLC may file a petition to the **District-level committee (DLC)**.
  - o Decision of the DLC on the record of forest rights shall be **final and binding**.
- **Scheduled Areas:** In act means the Scheduled Areas referred to in **article 244** of the constitution.
- **Protected Areas:** FRA is applicable in **National Parks, Wildlife Sanctuaries, and Tiger Reserves.**

Concerns related to the Act

- **Land Claims Related**
  - o **Document of Proof:** Many IFR claims were rejected because applicants did not provide adequate documentary evidence of this use of the land.
    - ✓ **For e.**g. According to **Section 2(c) of FRA**, to qualify as FDST.
      - ▪ Must be a Scheduled Tribe in the area where the right is claimed; and
      - ▪ Primarily resided in forest or forests land prior to 13-12-2005; and
      - ▪ Depend on the forest or forests land for **bonafide livelihood needs**
  - o **Inconsistency in acreage claimed and acreage allocated:** For e.g As per World Bank report, in Narmada District (Gujarat) around 70 % claimants reported that the IFR claim was approved for lesser acreage.
  - o **Low awareness: The** Gram Sabha, which initiates the verification of **FDSTs /OTFDs** claims, are low on awareness about how to deal with them.
    - ✓ An analysis of FRA implementation in Jammu & Kashmir between September 2021 and May 2023 highlighted that more than **92.57 %** of the rejected claims have been declined by Gram Sabha only.
    - ✓ Also, the locals being **illiterate** and living in remote areas, **FDSTs /OTFDs** do not know the appropriate procedure for filing claims.
- **Other Concerns with the Act**
  - o **Forest land encroachment**: Misuse of Gram sabha for approval for ineligible claimants and regularizing encroachments made after 13.12.2005 **(Cut-off date of recognition).**
    - ✓ When the applications get rejected, applicants file an appeal and the case drags on for years and remains encroached.
  - o **Violation of FRA Provisions:** Earlier titles were randomly issued in the name of JFM committees or panchayat bodies.

- ✓ For e.g., CFR titles were issued to 10 villages in Deori taluk of Gondia district of Maharashtra showed that the DLC had issued titles in the name of the **panchayat instead of the gram sabha**.
  - o **Lack of Coordination:** As per the act- SLC, DLC and the State Level Monitoring Committee shall consist of officers of the **departments of Revenue, Forest and Tribal Affairs** of the State Government.
    - ✓ However, they lack coordination to full fill the objectives of the act.
  - o **Destruction of forests and wildlife:** Environmental Conservationists raised concern that FRA act due to its land rights and minor forest produce use, might affect the biodiversity of the forest.
    - ✓ In several cases, trees on the forest land are chopped and claims are made under the FRA.

Way forward

- **Issuing Directives to states:** Under the FRA Act, the Centre can issue directives to states to ensure a review exercise in line with the law in case of such a high rejection rate of claims.
- **Learning from State Government:** Odisha government's **Mo Jungle Jami Yojana (MJJY)**, implementation of the scheme will provide ownership of land and access to forest resources to the beneficiaries.
- **Awareness Generation:** Awareness generation among gram sabhas, forest rights committees (FRCs), and IFR/CFR claimants about FRA and its rules and regulations need to be improved.
- **Capacity building of Gram Sabha:** As Gram sabha is the primary authority of approval, there is a need to improve capacity through training and effective use of local bureaucracy.
- **Others:** Involving marginal sections like women; increasing role of Civil Society, etc.

Scan the QR code to know more about **Scheduled Tribes and their development.**

Weekly Focus #77: Tribals in India- Charting a Development Path

1.8. NEWS IN SHORTS

1.8.1. 'UNLAWFUL ASSOCIATION' UNDER UAPA, 1967

- Ministry Of Home Affairs declared the 'Jammu and Kashmir Democratic Freedom Party' as an **'Unlawful Association' under the Unlawful Activities (Prevention) Act (UAPA) 1967.**
- UAPA was enacted **for effective prevention of certain unlawful activities** of **individuals and associations,** for **dealing with terrorist activities,** and for matters connected therewith.
- **Key provisions**
  - o Offences are **cognizable** (arrest could be made without a warrant).
  - o **Penalty: Death or imprisonment for life,** and shall also be liable to **a fine if** such act has resulted in the death of any person
  - o **Unlawful Association**
    - ✓ **Declaration of an association unlawful:** By the Centre through an official gazette notification, **by specifying the grounds.**
    - ✓ **Reference to Tribunal:** On the declaration of being unlawful, the notification should be **referred to Tribunal** within **30 days.**

- ▪ Tribunal consists of **one person (a Judge of a High Court).**
  - ✓ **Other powers to centre**
    - ▪ To **prohibit the use of funds of** an unlawful association
    - ▪ To **notify places** used for the purpose of an unlawful association.
  - o **Terrorist act:**
    - ✓ **Definition:** It includes any act **intended to threaten** the **unity, integrity, security or sovereignty of India** or **strike terror people in India or in any foreign country** among others.
    - ✓ **Forfeiture of proceeds of terrorism**: By the Investigating officer with the prior approval of the **designated authority.**

1.8.2. ONLINE REGISTRATION OF FIRST INFORMATION REPORTS (FIR)

- **282nd** report titled '**Amendment in Section 154 of the Code of Criminal Procedure, 1973 for Enabling Online Registration of FIR'** submitted by 22nd Law Commission to the Ministry of Law & Justice.

- o **Section 154 of the Code of Criminal Procedure, 1973** governs how the first **information** about the commission of a **cognizable** offence is recorded.
- **Recommendations**
  - o **e-FIR be enabled in a phased manner**
    - ✓ Registration of e-FIR is to be permitted for all **cognizable offences** where the accused is **not known** or attracting **punishment up to 3 years where the accused is known**.
  - o States have the power to **expand the list of offences.**
  - o **Privacy of the parties** to be ensured.
  - o **Verification of Informant/Complainant** and Punishment for False Information
  - o **e-Complaint** to be allowed for all Non-Cognizable Offences.
    - ✓ Complaint means any allegation made orally or in writing to a Magistrate, with a view to his taking action under this Code.
  - o **Capacity Building** to be given importance
- **Significance**
  - o **Citizens can report crimes conveniently and efficiently**.
  - o Complainants can also **check the timely status of their complaints online**.
  - o It helped in **reducing the footfall at the Police Station**.

1.8.3. CENTRE CLAIMS AADHAAR AS THE MOST TRUSTED DIGITAL ID IN THE WORLD

- Refuting the claims made by an investor servicing agency, the centre has claimed that Aadhar is foolproof.
- Aadhaar is a **12-digit individual identification number** issued by **Unique Identification Authority of India (UIDAI)**
  - o **The collected data** is secured in the **Central Identities Data Repository (CIDR)** of UIDAI.
- **Key Features of Aadhaar**
  - o **Uniqueness:** The **biometric de-duplication** avoids multiple cards issue for same information.
  - o **Random number:** The **generated number is random** and devoid of any details like caste, religion, income, etc
  - o **Architecture:** Is **open and scalable**, the current authentication service can handle **100 million authentications a day**.
- **Measures taken to ensure safety of Aadhaar**
  - o UIDAI has introduced a **two-layered security mechanism for Aadhaar-based fingerprint authentication** to secure Aadhaar.

- o Parliament has laid down **robust privacy protections in the law governing the Aadhaar system** through robust arrangements.
  - ✓ **Section 32(3) of the Aadhaar Act 2016 prohibits UIDAI from controlling, collecting or maintaining any information** about the purpose of any authentication.
- o **The authentication systems are certified as per international security and privacy standards** (**ISO 27001:2013** for Information Security Management System and **ISO 27701:2019** for Privacy Information Management System).

THE KEY USAGES OF AADHAAR:
- Aadhaar-Usage in DBT.
- Aadhaar Enabled Payment Systems.
- JAM (Jan-Dhan, Aadhaar, and Mobile) trinity
- One Nation One Ration Card Scheme.
- PM Kisan Samman Nidhi
- Co-WIN
- Face Authentication
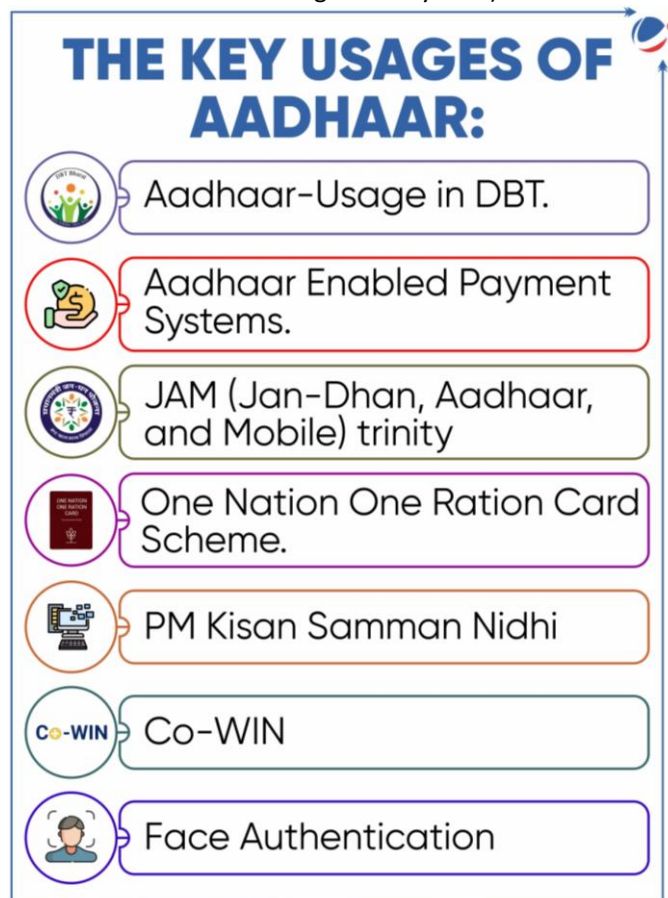
1.8.4. CABLE TELEVISION NETWORKS (REGULATION) ACT, 1995

- **The Ministry of Information and Broadcasting** has notified amendments in the Cable Television Networks Rules, 1994
  - o It provides the operational mechanism for implementation of the **decriminalized provisions of the Cable Television Networks (Regulation) Act, 1995.**
- **Aim:** to make the Cable Television Networks (Regulation) Act, of 1995 more business-friendly and to boost investor confidence and ease of doing business.

- Sections of the act were re-examined and were decriminalized through **the Jan Vishwas (Amendment of Provision) Act, 2023.**
- **The imprisonment provisions** have been now replaced with monetary penalties and other non-monetary measures like Advisory, Warning, etc.

1.8.5. SARNA CODE

- Jharkhand Government is seeking recognition of Sarna religious code for tribals.
- Sarna followers are **nature worshippers who do not consider themselves Hindus** and have been **fighting for a separate religious identity** for decades.
  - So far, the census surveys have included them as "others" in the religion column.
  - Believers of Sarna faith **do not practice idol worship**, **nor do they adhere to the concept of the Varna system, heaven-hell,** etc.
  - Holy grail of Sarna faith is "**Jal (water), Jungle (forest), Zameen (land)"** and its followers pray to trees and hills.

2. INTERNATIONAL RELATIONS

2.1. ISRAEL-HAMAS WAR

Why in the news?

Israel declared war on Hamas militants following their unprecedented attack under "Operation Toofan Al-Aqsa (Al-Aqsa Flood)."

More about the news

- **Operation Toofan Al-Aqsa** coincided with **Sabbath** which is the **Jewish day of worship and rest.**
- **Hamas fired 5,000 rockets** in just 20 minutes, **overwhelming** the **Iron Dome Defense System's** interception capabilities.
  - **Operational since 2011,** the 'Iron Dome' is a **short-range air defense system** of Israel.
  - With a **70-kilometer range,** it can **detect, and intercept** incoming **missiles, rockets, and UAVs** mid-air based on radar data.
- In response, Israel has launched **'Operation Iron Swords' against Hamas** militants in the Gaza Strip.
- Amidst the war, India launched **Operation Ajay** to evacuate its citizens stranded in Israel.

About Hamas

- Hamas or Islamic Resistance Movement was **founded in 1987** after the **First Intifada to resist Israeli occupation** of Gaza, the West Bank and East Jerusalem.
- It has been the **de facto authority in Gaza** shortly after Israel withdrew from the territory in 2005.
- It **refuses to recognise Israel** and is committed to **armed resistance against Israel** and the creation of an **Islamic Palestinian state in Israel's place.**
- **The US, the EU, Israel, etc**. have declared **Hamas a terrorist organisation.**

Background of Israel-Palestine Conflict

- The **root** of the latest war predates the **establishment of the state of Israel** 75 years ago on territory which is also claimed by Palestinian Arabs as their homeland.
- **Palestinians (Arabs) and Israelis** (Jews) alike consider the **territory** between the **Jordan River and the Mediterranean Sea as their own.**
  - Central to this conflict is the **city of Jerusalem** which hold **immense significance** for **Judaism, Islam, and Christianity** the three major Abrahamic religion. The City harbours
    - ✓ **Al-Aqsa Mosque** (the **3rd holiest Islamic site**, believed to be the place from where the Prophet Muhammad ascended to Heaven).
    - ✓ **Western Wall** (**holiest Jewish Site**, located adjacent to the sacred compound known to Jews as Temple Mount**)**

> **Other players in Palestine**
> - **Fatah:** It is a secular nationalist organisation formed in Kuwait in the late 1950s after the 1948 Israeli-Arab War. The key founder was Yasser Arafat. Its objective was to liberate Palestine through an armed struggle against Israel.
> - **Palestine Liberation Organisation (PLO):** PLO was conceived in 1964 at an Arab League summit in Cairo, Egypt, with the **sole aim of liberating Palestine with the help of an armed struggle** to achieve its goals.
>   - **PLO was officially recognised by the Arab League and the United Nations General Assembly** as the "sole legitimate representative of the Palestinian people".
>   - Under Yasser Arafat, and after the 1967 Arab Israeli War, Fatah became the dominant party in the PLO.
>   - In the early **1990s, it gave up its armed struggle against Israel and endorsed a two-state solution to the conflict with Israel**. This gave rise to Hamas.
> - **Palestinian Authority (PA):** The PA was founded in July 1994 by the **Oslo Accords as an interim body to govern parts of Gaza and the West Bank** (except East Jerusalem) till an agreed solution to the Israel-Palestine conflict.
>   - The **Oslo Accords** between the **PLO** and the **Government of Israel since** 1993 aimed at **ending decades of conflict** through the implementation of the **two-State solution.**
>   - The PA **functions as an agency of the PLO**, which represents Palestinians at international bodies.
>   - It is led by a directly elected president, who appoints a prime minister and government which must have the support of the elected Legislative Council
> - Currently, the **PA controls parts of the West Bank and is headed by Mahmoud Abbas, who is also the chief of PLO and Fatah**.

✓ **Church of the Holy Sepulchre (Central to Christian beliefs,** the church marks the place where many Christians believe Jesus was crucified, entombed, and resurrected).

Possible impacts of the current war

- **Centrality to the Palestinian cause:** As many Arab countries increasingly move to normalise ties with Israel, with the **signing of the Abraham Accord**, many saw the Palestinian cause take a back seat in the **Arab-Israeli conflict.**
  - The recent conflict has reaffirmed that addressing the **Palestinian cause vital** for ensuring peace and stability in the region.

- **Israel-Palestine relations**
  - **Peace**

Israel-Palestine Conflict Over the Years

Ottoman Period	• Under **Ottoman Empire rule,** the territory had an **Arab majority and a Jewish minority population.** • During Ottoman regime **Initial clashes** between the **small Jewish and larger Arab communities** in Palestine arise.
Post-World War 1	• **The fall of Ottoman regime saw intensification** of conflict due to **British Mandate** over Palestine under **Sykes-Picot agreement of 1916 and Balfour Declaration.** • **Sykes-Picot agreement:** Britain got control over Palestine on both sides of the Jordan River. • **Balfour Declaration (1917):** British government **supports the establishment of a** "national home for the Jewish people" in Palestine.
Post-World War 2	• In the following decades, **more Jews from various continents migrated to Israel** because of the **Holocaust, nationalism, and the Zionist movement.** • This significantly **changed the demography of the territory and intensified the conflict** between the two communities
UN Partition plan and Arab-Israel war	• UN envisages **two States, Israel and Palestine,** living side by side within **secure and recognized borders** and Jerusalem (a separate, internationally run entity). It was rejeccted by Arabs and violence further escalated • As the **British Mandate ended over Palestine, Israel declared itself as independent in 1948,** leading to immediate **attack by five Arab countries.**
Festering consequences	• Israel's victory, **territorial expansion** that led to millions of Palestanians becoming refugees, and the **failure to establish** the envisaged **Palestinian state set the stage** for the **subsequent Arab-Israeli conflict.**

negotiation: The current conflict may **unintentionally strengthen Hamas** and weaken Palestinian Authority's position in the West Bank. This could **negatively impact peace negotiations between Israel and** the **Palestine.**
  - **Involvement of Israel in Gaza:** Back in 2005, the **Israelis** had chosen to **voluntarily leave Gaza** in accordance with a disengagement plan.
    - ✓ **However,** now the Israeli Prime Minister has said that **Israel will have an 'overall security' role in Gaza indefinitely.**
- **Regional instability:** Saudi Arabia suspended talks on potentially normalising ties with Israel.
  - **Bahrain has also recalled its ambassador** from Israel whereas **Bolivia officially severed** its ties with Israel.
  - The added **strain on Israel's ties with Egypt and Jordan** and **Arab countries** could impact the **prospects of ending the war early,** the **release of hostages and prisoners of war**.
- **Economic:** The aftermath of the conflict **could impact global and regional economies**, already grappling with Ukraine's war and pandemic stimulus-induced **inflation.**
  - **Global Commodity Markets:** Escalation could **impact oil prices** (since OPEC countries contribute to around 32% of global oil production)**, disrupting commodity markets.**
  - **Trade:** The war may also impact the **Suez Canal trade**, which is a **key maritime route** between **Asia and Europe** and accounts for 12% of global trade by value.
    - ✓ **Escalation in the entire Middle East** could jeopardize **trade through the Strait of Hormuz,** responsible for 20% of global oil trade passage.
    - ✓ **Involvement of Iran** in the conflict may disrupt **trade with landlocked Central Asia**, a significant producer of agriculture, raw materials, and minerals.
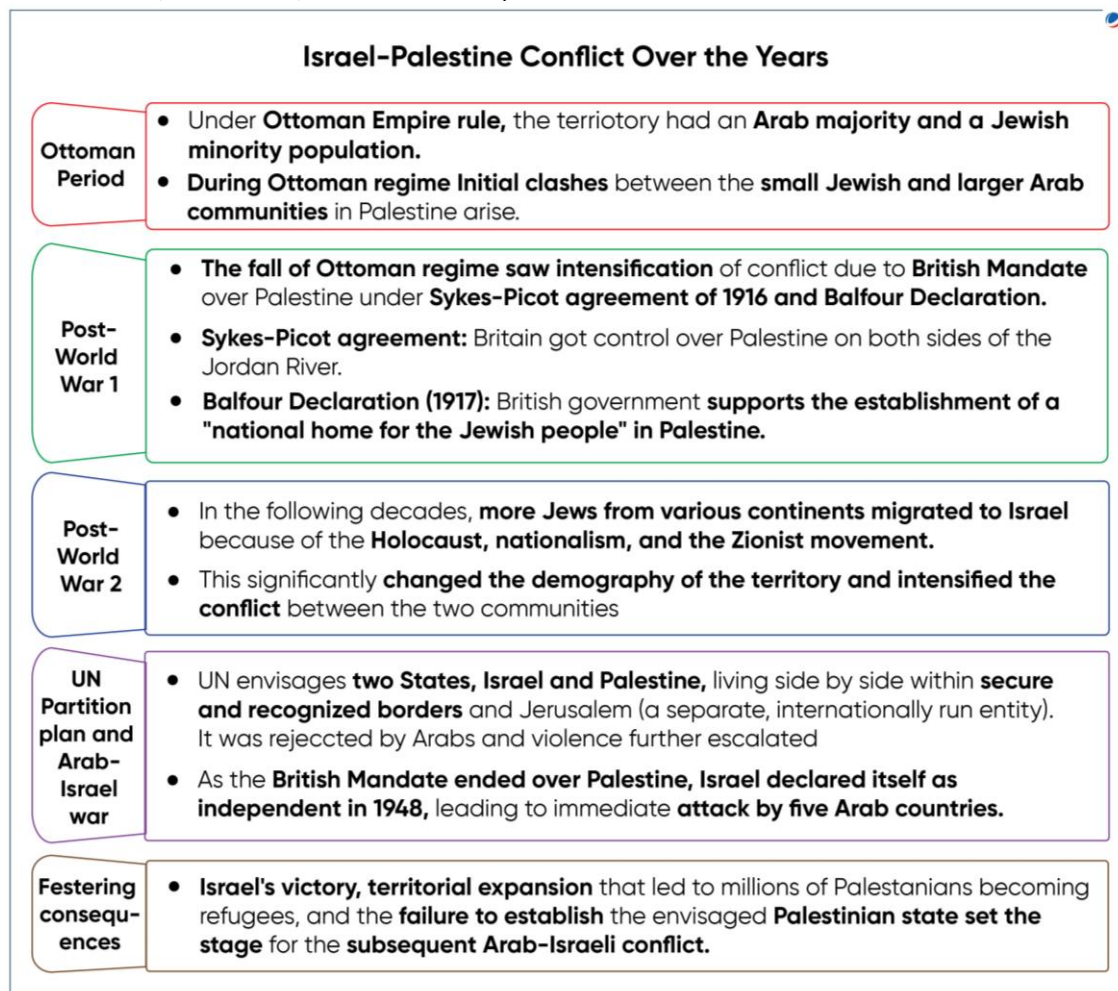
- o **Food supply:** Fertiliser movement from Israel's Port of Ashdod accounts **for 3% of global potash supply.** Any disruption on this front will also be a **dampener.**
    - ✓ Escalation may lead to **greater food insecurity in poorer countries.**
- **Humanitarian Crisis:** The war has reportedly resulted in **life-threatening shortages, impacting water, electricity, fuel, food, and medical supplies in Gaza** while also causing human causalities**.**
- **Impact on India:**
    - o **Economic:** India's exports to Israel may be affected, especially if operations at Israeli ports are disrupted. **S**ectors which will be negatively impacted include **Petrochemicals, Oil Marketing, Paints, Packaging, Textiles and Chemicals.**
    - o **Geostrategic: Normalisation** between Arab countries has opened up **unique opportunities for India** to strengthen its **global and economic position.**
    - o **Connectivity efforts:** The war has cast its shadow on the **India-Middle East-Europe Economic Corridor (IMEC),** announced recently by the leaders of **India, Saudi Arabia, the US, and the UAE.**
        - ✓ The corridor aimed to facilitate the **transit of commerce, energy and data** to, from and between India, the UAE, Saudi Arabia, Jordan, Israel and Europe.

Israel and Palestine territory over the years

1947 UN Partition — 2020s

Legend: Israel | Palestine | Jointly controlled | Israeli Settlements
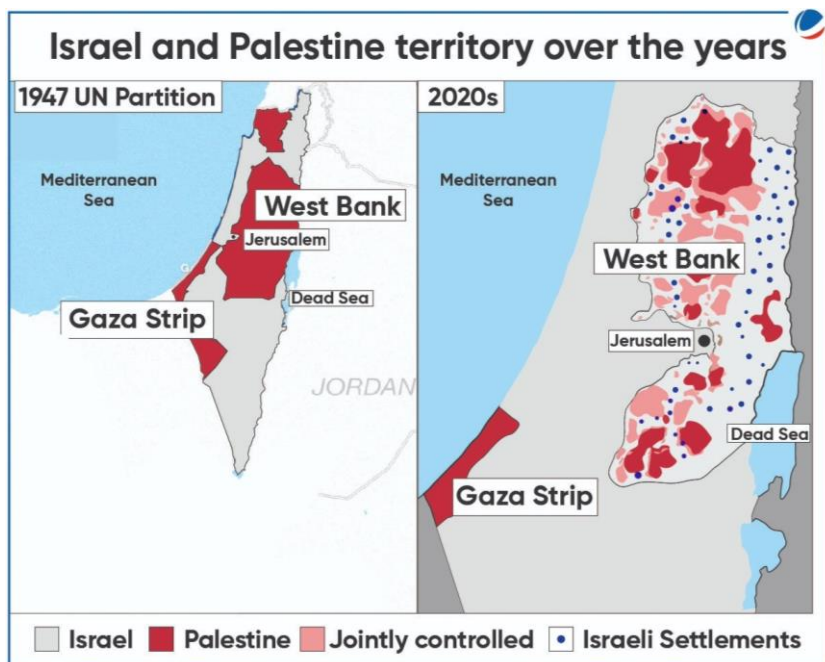
India's stand on Israel Palestine issue
- India has **strategic interests in West Asia** considering its energy security, presence of diaspora, trade and investment, etc.
- In backdrop of this, India continues to **support two state solution**.
    - o At the UN **India voted against the partition plan** for Palestine and **Israel's admission to the UN.**
    - o India formally recognized Israel in 1950, and established full diplomatic relation with it in 1992.
    - o From **2017 India is following a 'de-Hyphenation Policy'** allowing for independent relationships with both Israel and Palestine.

Conclusion

Mediation between Israel and Hamas may not fully address the conflict's root causes. Resolving issues such as Palestinian refugees and the status of Jerusalem is essential. Success depends on both parties' willingness to engage in negotiations and the role of international actors, along with evolving regional dynamics.

2.1.1. YOM KIPPUR WAR

Why in the news?

The attack by Hamas on Israel coincided with the fiftieth anniversary of Yom Kippur War the fourth Arab-Israel war (1973).

Background of the Yom Kippur War

- **1948 - First Arab-Israeli War:** Immediately after Israel declared independence, it was attacked by a coalition of Arab states and Palestinian factions who were against the **establishment of the Jewish State and the UN partition plan.**
    - o In the war, **Israel gained** control of a **larger portion of the territory** and a large number of **Palestinians were driven from their land.**
    - o This f**orced expulsion of Palestinian Arabs** is referred to as the "**Nakba,**" or "catastrophe" in Arabic.
- **1956 - Second Arab-Israeli War (Suez War):** The Suez War involved **Israel, the UK, and France** on one side against **Egypt** on the other**.**
    - o The war marked the **decline of British and French influence** in the region, paving the way for the **United States to become the most influential power.**
- **1967-Third Arab-Israel War (Six-Day War):** Israel initiated **pre-emptive air strikes** and a successful ground offensive.

- o **Israel** took control of **Egypt's Sinai Peninsula** and **Gaza Strip, Jordan's West Bank and East Jerusalem, and Syria's Golan Heights.**
- o The war **ended with a U.N.-brokered ceasefire** but **reshaped the Middle East map.**
- o The Arab League passed **'The Three No's' resolution** (i.e., **no peace** with Israel, **no recognition** of Israel, and **no negotiations** with Israel) at a summit in Khartoum.

About Yom Kippur War (Fourth Arab-Israel War)

- In October 1973, a coalition of Arab nations, led by **Egypt and Syria**, launched a **surprise, coordinated attack on Israel** on Yom Kippur, a **Jewish holy day.**
- **Purpose of war:** Unlike the previous three wars Egypt and Syria did not go to war in support of the Palestinians, rather they **hoped to reclaim lost territory after Israel's victory in the Six-Day Wa**r of 1967.
- **Involvement of Superpower:** The **US** supported **Israel**, and the **Soviet Union** supported **Egypt** and Syria, leading to heightened tensions between these nuclear superpowers.
- **Ceasefire Attempts:** A ceasefire was achieved with the involvement of the **United Nations.**

Landmark Peace Agreements between Israel and Arabs

- **1978 Camp David Accords:** The Accords between **Egypt and Israel**, mediated by the US marked **a historic peace treaty between Israel and Egypt.**
  - o Officially titled the **"Framework for Peace in the Middle East, the Accords** had two parts.
    - ✓ an **Israeli-Egyptian agreement terminating the bilateral dispute** between them and

Consequences of the Yom Kippur War

Setback to Syria
- Syria **did not gain anything positive** from the war.
- **Israel took control of more** of the strategically important and fertile **Golan Heights**

Shift of Egypt's allegiance to US
- After the war, **Egypt** that had expelled the Soviet Union's military advisers in 1972 **placed itself squarely within the US orbit.**
- This is considered to be the **US' greatest achievements** during the Cold War.

Dent to the image of Israel
- The aftermath of the war **dented the sense of power enjoyed by Israel** ever since its victory in 1967.
- This played a key role in **bringing it to the negotiation table** as purportedly envisioned by Egypt.

Oil Embargo against US
- **U.S.** support for Israel during the war prompted Arab countries to halt oil shipments to the U.S..
- It had **substantially increased the global oil price increase**

Transition from violence to diplomacy
- The War **break the deadlock** and opened the way to a lengthy, intermittent for peace negotiations that would settle the **Arab–Israeli conflict**

- ✓ a **framework laying down the principles for resolving Israel's conflict over the Palestinians** and its disputes with other Arab neighbours.
  - o Egyptian President **Anwar Sadat** and Israeli Prime Minister **Menachem Begin** were awarded the **Nobel Prize for Peace in 1978** for their contributions to the agreements.
- **Oslo Accords (1993):** Signed between **Israel and PLO,** these agreements established the **Palestinian Authority to manage West Bank** administrative matters.
  - o In return, the **PLO recognized Israel** based on a two-state solution.
- **Jordan-Israel Peace Treaty (1994):** With this **Jordan** became **the second Arab country**, after Egypt, to make **peace with Israel**. This treaty **settled territorial disputes** and covered diplomatic relations, economic cooperation, etc.
  - o **Israel acknowledged Jordan's** significant **historical role in Jerusalem,** particularly regarding its Islamic holy sites and institutions.
- **Arab Peace Initiative (2002):** Drawn up by Saudi Arabia, the initiative offered **Israel normalized relations** in exchange for a **Palestinian statehood** agreement and a complete **Israeli withdrawal from 1967-captured territory.**
- **Abraham Accords (2020): Israel,** the **UAE, and Bahrain** signed the **US-brokered** Abraham Accords in 2020. **Morocco and Sudan have also joined the accord** (Sudan is yet to sign an agreement with Israel).

- These Accords have **two parts**: a **declaration** for Middle East peace and **bilateral agreements**.
- The **declaration recognizes the common ancestry** of **Arab and Jewish peoples** through **Abraham.**
- **It also strives** for **coexistence, understanding, and respect** among **people of all faiths** and nationalities in the **Middle East.**
- The Accords have paved the way for **greater regional and multinational cooperation**.
  - ✓ For example, formation of the **I2U2 Group** was established by **Israel, India, the UAE, and the United States**.

Conclusion

While the peace treaties that followed the Yom Kippur War, particularly the Camp David Accords, were once seen as landmarks and indicators of regional peace, recent conflicts have prompted questions about their effectiveness in public discourse.

2.2. INDIA CANADA RELATIONS

Five Eyes Intelligence Alliance (FVEY)
- It is an **intelligence alliance** comprising the **US, UK, Australia, Canada, and New Zealand.**
- It originated from the **1946 UK-USA Agreement** for **sharing signals intelligence (SIGINT).**
- **Five Eyes Intelligence Oversight and Review Council** includes the **non-political intelligence oversight,** review, and security entities of member.

Why in the news?

Canada's assertion that Indian agents were involved in the murder of a pro-Khalistan activist led to diplomatic strain between the two countries.

More on the news

- Canadian Prime Minister accused India of being involved in the murder of Hardeep Singh Nijjar, a **Sikh separatist leader** who was shot in British Columbia, Canada in June 2023.
- Shared intelligence between the **Five Eyes Alliance** was considered the basis for such an allegation by Canada.
- Subsequently Canada followed by India **expelled each-other's diplomat.**
- **India further suspended visa services in Canada,** citing it as a "safe haven for terrorists," and called for the **withdrawal of 41 Canadian diplomats** from India.
  - **Canada** criticized India's demand, **alleging** a **breach of the Vienna Convention,** while India defended it as seeking **equal diplomatic representation as per Article 11.1 of the Convention.**

Vienna Convention on Diplomatic Relations

Genesis: It was signed in 1961 and entered into force in 1964.

Membership: 193 members are parties to the convention. 🇮🇳 Member

Mandate: The Convention sets out **privileges of a diplomatic mission** and provides the **legal basis for diplomatic immunity.**

It also enables mission **withdrawal for various reasons.**
- Article 11.1 allows **receiving states to set reasonable mission size limits.**

India-Canada relations

India and Canada have a longstanding bilateral relationship based on shared **democratic values, the multi-cultural, multi-ethnic** nature of the two countries and strong **people-to-people contacts.**

- **Diaspora**: Canada hosts one of the largest Indian Diasporas in the world, accounting for **more than 3% of the total Canadian population**
- **Economic:** Bilateral trade in goods was approximately **$ 9.9 billion** and in services, it was **6.5 billion** in 2022.
- **S&T cooperation:** The collaboration mainly promotes **industrial R&D** with a focus on creating new **IP, processes, prototypes, and products.**
  - Since the 1990s, India and Canada have cooperated in **space science**. ANTRIX, the Commercial arm of ISRO, has launched several nanosatellites from Canada.
- **Cooperation for energy security:** The **Civil nuclear agreement of 2010 facilitated** Canada to provide uranium for Indian nuclear reactors as part of the agreement.
  - **Indian Oil Corporation** has a **10% participating interes**t in a **Liquid Natural Gas** project in **British Columbia**.

- **Strategic cooperation**: **Canada's Indo-Pacific Policy,** acknowledges **China** as a **"disruptive global power"** and underscores **India** as a **"critical partner"** for collaboration in shared interests.

Challenges in India-Canada relations

- **Historical legacy:** During the Cold War, Canada was a founding member of the North Atlantic Treaty Organization (NATO), while India pursued a policy of Non-Alignment.
    - Additionally, **Canada endorsed a plebiscite in Kashmir**, which ran counter to India's interests.
      After India's nuclear tests in **1998**, **Canada temporarily halted potential nuclear cooperation with India.**
- **Canada's immigration system:** This enables **individuals** with a **contentious past** to **acquire citizenship** and utilise that position to **engage in activities against other nations.**
    - This presents a substantial **obstacle to upholding robust bilateral relations** in today's interconnected global landscape.
- **Domestic Political Factors:** The current coalition government in Canada, is with the alliance of parties Pro-Khalistan parties enabling the particular stand
- **Suboptimal economic cooperation:** A Comprehensive Economic Partnership Agreement (CEPA) between these countries is **pending since 2010.**
    - **CEPA** between them could boost **bilateral trade by as much as $6.5 billion,** yielding a GDP gain of $3.8 billion to $5.9 billion for Canada **by 2035.**
- **Meddling in India's domestic affairs:** For example, during the **farmers' protests** in India, the Canadian PM expressed his support for the farmers, stating that the situation is a cause for concern.

Possible impacts of the crisis

- **Strategic:** The **Western countries' response** to the ongoing tensions has been **relatively restrained**, as they view **India** as a **vital counterbalance to China**, thereby overshadowing Canada's strategic interests.
- **Economic:** In the event of an escalation in the crisis, it might lead to **disruptions in bilateral trade, investment flows**, and potentially result in **further delays to CEPA.**
- **Diaspora Connection:** The diaspora connection which has the potential to facilitate cultural and economic relations is currently under strain.

Way ahead

- **Promoting Diplomacy:** The first step towards improving relations involves pausing the current escalation. Each side should **express** their **concerns without disrupting the status quo.**
    - Diplomacy, not expulsions or service suspensions, should be the way forward.
- **Managing diaspora relations:** Canada should carefully balance the empowerment of immigrant communities.
    - It should assess their activities and influence, avoiding undue political or economic sway.
- **Responsible freedom of expression:** People endorsing violence, separatism, or terrorism should be held accountable for abuse of freedom of expression.
- **Cooperation on counter terrorism:** Both countries should collaborate under **the Framework for Cooperation on Countering Terrorism and Violent Extremism**, established in 2018.

Conclusion

It is important for both sides to develop a **new framework of cooperation** that is more **pragmatic and emphasises mutually beneficial areas**, such as trade, energy etc.

2.3. INDIA SOUTH KOREA

Why in news?

2023 marks **50th anniversary** of diplomatic relations between India and South Korea (Republic of Korea or RoK).

India South Korea relations

- **Civilisational linkage:**
    - According to **"SamgukYusa** or The Heritage History of the Three Kingdoms**,** a 13th-century text, **Princess Suriratna from Ayodhya married King Kim-Suro** in the **year 48 AD in Korea.**

- o **Buddhist Monk Hyecho** (Hong Jiao) **visited India** from 723 to 729 AD and documented his journey in the travelogue "**Pilgrimage to the five kingdoms of India**," offering insights into Indian culture, politics, and society.
  - o **Rabindranath Tagor**e composed a poem in 1929 called **'Lamp of the East'** that celebrated Korea's rich history and its bright future.
- **India's Role after World War II:**
  - o **Leadership** of the **UN Commission for Korean elections** in 1947.
  - o **Resolution sponsored by India** led to the Korean War **ceasefire in 1953.**
  - o **India's chairmanship** of the **Neutral Nations Repatriation Commission (NNRC)** after the armistice and contributed to resolving the humanitarian issues arising out of the War.
- **Diplomatic relation**: In 1973 both the countries established formal diplomatic relation which was upgraded to '**Strategic Partnership'** in 2010 and '**Special Strategic Partnership'** in 2015.
  - o India's **'Act East' policy** has guided its cooperation toward South Korea and the **'New Southern Policy (NSP)** has been South Korea's regional strategy toward India and ASEAN.
  - o Both, the **Act East Policy and NSP, align in terms of their regional priorities.**
- **Economic and trade relations**:
  - o Both are signatories to the **Comprehensive Economic Partnership Agreement** (CEPA) since 2009. Bilateral trade between both reached **US$ 27.8 billion in 2022.**
  - o '**Korea Plus'** initiative aims to promote and facilitate **Korean Investments in India.**
  - o Korea increasingly sees India as a new economic partner due to their aim to **reduce over-dependence on China and the US.**
  - o The two countries **aspire to take commerce up to 50 billion USD by 2030.**
- **Strategic convergence**: Both support a **rules-based Indo-Pacific** and share concerns about **China's rise** and **North Korea's nuclearization.**
  - o **In 2018, India endorsed the "Vancouver Dialogue"** to prevent North Korean nuclear proliferation.
  - o **Korea's Indo-Pacific strateg**y includes **India** as **a key member** in the region.
- **Defence and security cooperation**: The Defense Policy Dialogue, initiated in 2013, was upgraded to a **2+2 Dialogue** (i.e., Foreign and Defence level Ministerial Meetings**)** in 2019.
  - o The defense partnership is expanding into **joint research, production** (like K9 Vajra artillery gun)**, and collaboration** in areas like cyber, space, and intelligence-sharing.
- **Cultural Relations**: **Sarang, festival of India** in Korea is organised every year, to showcase diverse Indian culture and art forms in various parts of South Korea.
- **Indian diaspora**: Many Indian **scholars** pursue post-graduate and Ph.D. programs in Korea, and **professionals** in IT, shipping, and automobiles have also migrated to Korea.

Challenges in strengthening India-South Korea relations

- **Geographical Gap:** Geographical distance has restricted their interactions, with both countries primarily concentrating on their nearby regions.

- **Delayed strategic cooperation:** The rivalry of **the Cold War limited their interactions** in foreign policies. South Korea perceived India as aligned with the socialist bloc.
  - Nevertheless, India pursued a non-alignment policy, maintaining balanced relations with both North and South Korea in the Korean peninsula.
- **Suboptimal cooperation**: Limited cooperation results from a **lack of strong political intent** on both sides. South Korea often aligning with major powers like the US, while India's regional policies are still developing.
- **Untapped economic potential:** For example, the **CEPA** is said to be **limited in scope.** Intent to revise CEPA was declared in 2015 but it is yet to concluded.
  - **India is also facing trade deficit** (around $8 billion in 2021-22) due to technical **trade barriers,** higher **import duties**, etc.

Way ahead

- **Vision for systematic cooperation**: The bilateral relationship has historically emphasized economic projects, but it is now crucial **to forge a more strategic relationship** with a focus on the **Indo-Pacific Strategy.**
  - **South Korea along with New Zealand and Vietnam** have participated in Quad (alliance of Australia, India, Japan and the US).
  - Many experts believe that such cooperation should lead to expansion of Quad as **Quad Plus.**
- **Deepening Economic and Technological Cooperation**: Since their core competencies in the economic domain are different, they could decide on a long-term, win-win framework of cooperation.
  - **Korea's aging population and technology** could combine with **progressive youthful India** and make a manufacturing hub.
  - **Startups, technology-driven services, and digital trade, semiconductors,** etc. have high potential for collaboration.
- **Strengthening of maritime security:** Both countries can explore potential for **joint HADR** exercises, **counter-piracy** operations, and **maritime domain awareness**, enhanced **interoperability,** etc.
- **Developing Regional Synergies:** The two Asian giants should also explore third-country cooperation with specific states in the IOR that need developmental intervention.
  - **ASEAN and Indian Ocean Rim Association (IORA**) are critical platforms that can facilitate both the countries to engage with a third country.
    - ✓ In **ASEAN** both **nation**s are **dialogue partners** whereas **IORA India is a founding** member and **South Korea** has **dialogue partne**r status.
- **Multilateral cooperation**: Multilateral forums like IORA, ASEAN, and the Indo-Pacific Economic Forum (IPEF) offers more opportunities for collaboration including collaboration in third country.
  - Both can collaborate in **supply chain resilience, infrastructure, clean energy, and decarbonization** engagement in third-party countries located in Southeast Asia.

Conclusion

India and South Korea are middle powers and growing economies that need regional stability, and for this, they must work together. The strategy and partnership should move beyond the normative approach towards a robust and strengthened bilateral relationship.

2.4. INDIA MALDIVES

Why in the news?

Maldives' new President-Elect has **pitched** to **end the presence of Indian troops** in the islands in accordance with his pre-poll promise made under **"India Out" campaign.**
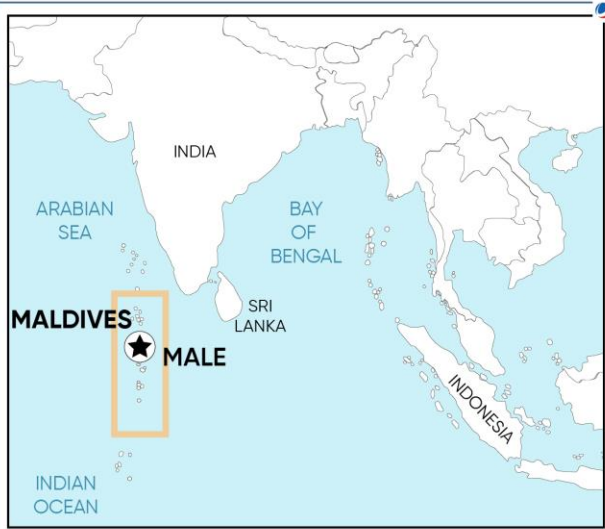
More on the news

- The **"India Out" campaign,** led by the Progressive Party of Maldives (PPM), played a **pivotal role** in its recent electoral victory against the incumbent MDP.
- **The campaign** strongly **opposed the Indian military's presence** in the Maldives, expressing concerns that this presence might compromise the sovereignty of the Maldives.

- It began **in response to India's gift of two Dhruv Advanced Light Helicopters (ALH) in 2010 and 2015**.
  - These helicopters were provided for purposes like **maritime weather surveillanc**e and ocean **search-and-rescue operations.**
  - Around **70 Indian military personnel** maintain **India-sponsored radar stations and surveillance aircraft**. Indian warships help **patrol Maldives' Exclusive Economic Zone.**

About Maldives
- Maldives' position in the northern Indian Ocean keeps it **in the vicinity of waters patrolled** by Indian **Navy warships.**
  - It is just **70 nautical miles** away from India's **Minicoy Island** and **300 nautical miles** away from India's **Western Coast.**

Importance of Maldives for India

- **Integral to India's Neighbourhood first policy:** With strong **cultural, economic and trade ties** for centuries, Maldives is an important component of India's Neighbourhood first policy.
  - **Also** Maldives is member of **South Asian Association for Regional Cooperation (SAARC).**
- **Strategic location:** Maldives acts as a strategic link between major Indian Ocean chokepoints including **Gulf of Aden, Strait of Hormuz and Strait of Malacca.**
  - Location is significant for **India whose 95%** of trade by volume and **68%** of trade by value come via Indian Ocean.
- **First line of defence**: Due to its proximity to India, Maldives serves as the first line of defense against various **maritime threats** such as terrorism, piracy, drug trafficking, and other.
- **Reducing influence of China in the IOR:** Beyond diplomatic and trade partnerships, China has begun a consistent military presence in the India Ocean Region (IOR).
- **Presence of diaspora:** Indian expatriate community have a strong presence in the health and education sector.

Importance of India for Maldives
- **Recognition of Maldives:** India was **among the first to recognize** Maldives after its independence in 1965 and to establish diplomatic relations with the country.
- **Amicable Relations:** India's ties with the Maldives lack political disputes.
  - The **1976 maritime boundary treaty resolved the dispute over Minicoy**, with the Maldives recognizing Minicoy as an integral part of India.
- **First responder in crisis:** India has been a first responder during various crises, including the
  - 1988: military intervention (named **Operation Cactus**) to prevent a coup,
  - 2004: assistance after the tsunami,
  - 2014: aid during the water shortage,

- o 2020: comprehensive help during the COVID-19 pandemic.
- **Net Security Provider:** As a major maritime power in South Asia, India has a duty to address security concerns in its maritime neighbourhood
  - o **Maldives views India as a "net security provider"** and plays a significant role in India's Security and Growth for all in the Region (SAGAR) initiative.

Areas of cooperation between India and Maldives

- **Bilateral Trade Relations:** By 2021, bilateral trade reached **$ 323.9 million,** with India becoming **Maldives' third-largest trade partner.**
- **Security & Defence**: They have a '**Comprehensive Action Plan for Defence**' and India meets about 70% of Maldives' defense training needs
  - o India also supplies defense-related facilities and equipment including a **military hospital, a coastal surveillance radar system.**
  - o India is building a new coast guard base at **Uthuru Thilafalhu (UTF) atoll.**
  - o They engage in **joint military exercise** (**Ekuverin**), participate in joint **Humanitarian Assistance & Disaster Relief exercises,** and cooperate through the **Colombo Security Conclave (CSC).**
    - ✓ The CSC was initially created in **2011** as a **trilateral maritime security grouping** involving India, Sri Lanka, and **Maldives** and later extended to **Mauritius**.
- **Development Cooperation:** India has established Indira Gandhi Memorial **Hospital**, Institute for Technical Education, Faculty of Hospitality & Tourism Studies, National **College for Police and Law Enforcement, etc.**
  - o India provides **grant** to Maldives for **High Impact Community Development Projects (HICDPs).**
- **Infrastructure Projects**: India is supporting airport Redevelopment, roads and land reclamation, etc.
  - o **Greater Male Connectivity Project** being developed by India is the Maldives' largest infrastructure project.
  - o It will involve the construction of a 6.74 km **bridge and causeway** link connecting the capital, Male to three adjacent islands.
- **Tourism:** In 2023, India is the leading source market for Maldives.
  - o Both the countries have an **open skies arrangement** and bilateral Agreement on the facilitation of Visa arrangements grants **visa-free entry for tourism, medical and business purposes.**

Challenges in relations
- **Instability in the country:** Maldives civil society is at nascent stage and it faces challenges like **religious extremism, drug abuse, labour market issues,** etc. which might affect India's goodwill efforts.
- **Anti-India sentiments:** The recently elected government is considered to be pro-China and the President elect has expressed willingness to **cancel various agreements with India** that were made by the previous government.
- **Influence of China**: Maldives has emerged as an **important "pearl" in China's "String of Pearls"** strategy.
  - o **China could seize opportunities** amid domestic political changes to regain lost ground and **strengthen its security and economic foothold**, potentially posing a security threat to India.
- **Delay in project completion**: Historically, India suffers from a **negative image of having an implementation problem**.

Way ahead

- **Allaying anti-India notion:** India has to work on **perception management** in Maldives, and communicate to people that Indian assistance (like vaccine Maitri) will **bring more benefits to people of Maldives**.
- **Youth employability and entrepreneurship**: More than 35%t of Maldives' population are young people aged 15-35. Future projects by India **must be targeted at youth employability** and entrepreneurship in Maldives.
- **Early completion of projects**: India should **ensure efficient project management and oversight** and address any obstacles or challenges that may cause delays.
- **Engaging with the new government**: India should continue projects it initiated under the previous government, , while working out a new approach to engage with current government.
- **Focus on India's strengths**: India should provide appealing and substantial alternatives to China's investments that prioritize building strong **people-to-people connections** and **fostering the development** of Maldives.

Conclusion

India's footprints in Maldives are deep-rooted, both historically and in contemporary relations. Change may occur to some extent due to the change in leadership in Maldives. However, it is unlikely to alter the fundamentals. India-Maldives shall cooperate in the spirit of 'Neighbourhood First' policy and 'SAGAR'.

2.5. UNITED NATIONS HUMAN RIGHTS COUNCIL (UNHRC)

Why in the news?

The UN General Assembly elected 15 Member States to the Human Rights Council (HRC) and declined **Russia's bid to rejoin** the same.

More on the News

- The 15 new members were **elected by secret ballot** according from different regions for the **2024-2026 term.**
- Countries need a minimum of **97 votes to get elected.**
- Russia was competing against **Albania and Bulgaria** for two seats representing the **East European regional group.**
  - Russia was **ousted** from UNHRC **after it invaded Ukraine**.
- **Other countries** which got **elected** under other regional groups include **China, Japan, Kuwait Burundi, France, Cuba, Brazil, e**tc.

About UNHRC

- **HQ:** Geneva
- **About:** It is the **principal intergovernmental body** within the UN system responsible for strengthening the **promotion and protection of human rights** around the globe.
- **Genesis:** It was **created by the UN General Assembly (UNGA) in 2006** as its **a subsidiary organ** replacing the Commission on Human Rights.
- Council adopted **an 'institution-building package', in 2007** to set up the Council's procedures and mechanisms.

Human Rights Council

47 Member States elected by the UN General Assembly for 3 years

| 13 Africa | 13 Asia Pacific | 6 Eastern Europe | 8 Latin America and Caribbean | 7 Western Europe and others |

Institution Building Package (Resolutins 5/1)

| Universal Periodic Review | Special Procedures | Advisory Committee | Complaint Procedure |
| UPR Working Group (47 Council members) | Independent human nights experts with a 3-year mandate | Thinktank of experts with a 3-year mandate | Examines complaints of gross violations |

- **Institutional structure**
  - **Bureau**: It consists of a **President and four Vice-Presidents** who represent **each of the five regional** groups. It is responsible for the **procedural and organizational leadership of the Council.**
  - **Working groups:** It has several **working groups studying human rights issues** and maintains the Special Rapporteur projects of the Commission on Human Rights.
  - **Secretariat:** Staff from the **Office of the High Commissioner for Human Rights** (OHCHR) serve as the secretariat providing its members with technical, substantive and administrative support.
    - ✓ **Created by the UNGA in 1993** UN OHCR works to **promote and protect the enjoyment and full realization, by all people, of all human rights.**
    - ✓ United Nations High Commissioner for Human Rights is **accountable to the Secretary-General.**
  - **Observers:** Non-member States, inter-governmental organizations, and NGOs.
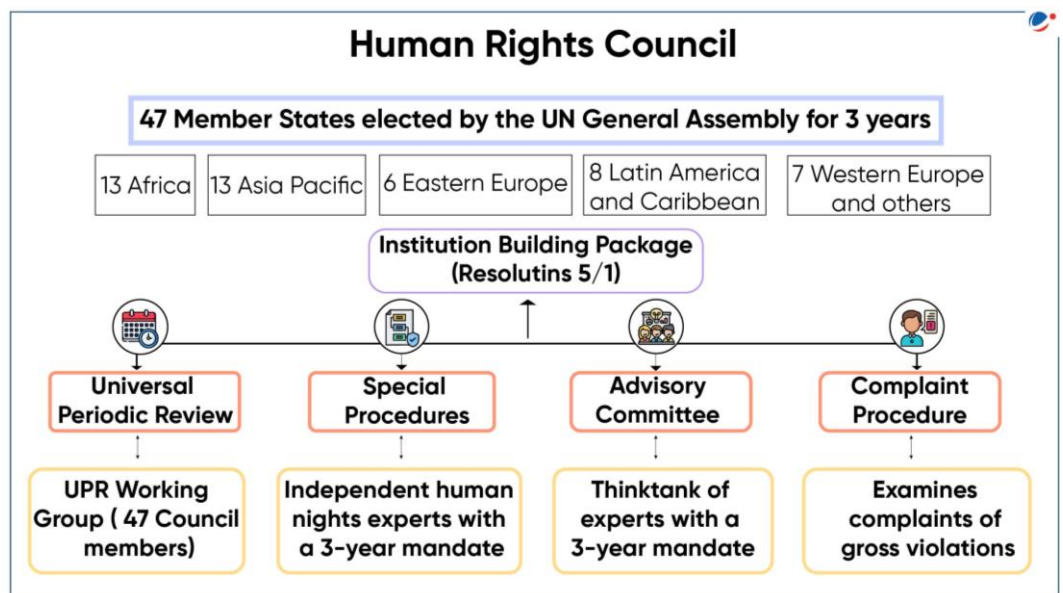
- **Power:** It can also establish **international commissions of inquiry and fact-finding missions** investigating and responding to human rights violations, to help expose violators and bring them to justice.
  - The **decisions** of the Council are **not legally binding**.

Criticism of HRC
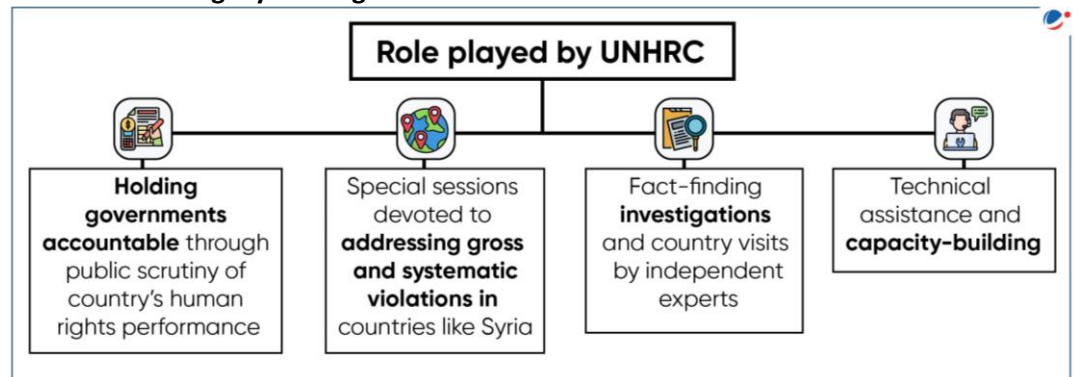
- **Membership criteria**: Many of the Council **seats have been held by countries with human rights concerns**, such as Saudi Arabia, China, and Syria. Such members use their position to **block scrutiny of themselves and others.**

Role played by UNHRC

| Holding governments accountable through public scrutiny of country's human rights performance | Special sessions devoted to addressing gross and systematic violations in countries like Syria | Fact-finding investigations and country visits by independent experts | Technical assistance and capacity-building |

  - **Suspension of the membership** of States committing human rights violations is also **a rare phenomenon.**
- **Selectivity and politicization**: For example, the **focus on Israel**, highlighted by a **dedicated council** item since 2007, raises que stions about selectivity and politicization.
  - Also, **country-specific mandates are declining** and many states allege they **unfairly target developing countries**
- **Accessibility barrier**: The **substantial costs** associated with **attending HRC's sessions** is a hurdle, particularly for civil society and human rights defenders in the Global South.
  - Concerns persist regarding **inability to adequately address participation needs for specific groups**, including children (victims/survivors).
- **Participation of civil society:** Human rights defenders and NGOs representatives **often face interruptions and reprisals.**
  - Additionally, the **UN NGO Committee** is accused of **not effectively following the accreditation process for civil society organizations**. This affects the credibility of these organizations.
- **Implementation Deficiencies:**
  - **Non-binding recommendations**: Countries with poor human rights records can **easily dismiss recommendations** from the UPR since they are non-binding.
  - **Tendency to vote in blocs**: The tendency for **blocs,** such as the Organization of the Islamic Conference and Africa, to **vote collectively weakens the Council's ability to address each issue individually.**

Way ahead

- **Enhancing credibility:** There is a need for **deeper scrutiny of candidate countries** and of the human rights records of Council Members throughout their terms.
  - A Council Member State violating human rights should be **given a set timeframe to comply with its membership obligations.** Failure to do so may result in the **suspension of their membership.**
- **Enhancing accessibility:** States should consider creating **funds or offering technical assistance** to **civil society organizations**, helping them actively participate in the Council.
  - Adopt **a zero-tolerance policy on reprisals, harassment and intimidation** against civil society and human rights defenders to make the Council a safe space for their engagement.
- **Accreditation of civil society:** Revamp the UN NGO Committee's accreditation system by moving it from diplomats to **qualified professional experts**.
- **Enhancing effectiveness in functioning**:
  - **Proactive approach:** Reduce the time between country visits and report presentations at the Council.
    - ✓ If early signs of severe human rights violations are detected, expedite consideration through **informal briefings or urgent debates** to fulfil the Council's **preventive mandate.**
  - **Cooperative approach:** Make human rights standards central to the planning and delivery of all UN operations.
    - ✓ Foster a closer relationship between the **HRC, UN Security Council** (UNSC) and **regional human rights bodies.**

- **Enhancing visibility:** Better communicate Council mechanism, and outcomes to a wide range of stakeholders working at the local, national and regional levels.

2.6. SOUTH CHINA SEA

Why in the News?

Philippines has removed a **floating barrier installed by China** which blocked Philippines fishing boats from entering a contested area in the South China Sea.

More about the news

- Earlier **China installed a floating barrier** near a lagoon in the **Scarborough Shoal** claiming it as its territory while **Philippines claims it to be a part of its Exclusive Economic Zone** (EEZ)

Background of South China Sea dispute

- While the Sea **lies south of the Mainland China,** its **littoral states include** the countries of **Brunei, Indonesia, Malaysia, Philippines, Taiwan and Vietnam**.
- China **claims around 90% of the region as its EEZ based on the Nine-dash lines**, which it introduced in 1947 through historical claims over the **Paracel and Spratly Islands** in the region.
  - Meanwhile the **littoral states also claim for their respective shares** in the EEZ and the islands based on their history.
- **China** to uphold its influence **started creating artificial islands** across the region and has constructed ports, military installations, and airstrips in them.
- **Philippines moved the issue to the Permanent Court of Arbitration (PCA) at The Hague.**
- T**he court issued its ruling in favour of Philippines** under United Nations Convention on Law of the Seas (UNCLOS) in 2016, which the China has refused to acknowledge till date.

Significance of South China Sea:

- **Maritime trade:** The region is one of the **busiest sea routes of the world** and more than **60% of the global trade passes through this sea.**
  - Approximately **$ 3.37 trillion worth of trade** passed through the South China Sea in 2016.
  - Indian vessels need to cross them safe and secure to reach the Pacific nations.
  - Nearly **55% of India's trade** with the Indo-Pacific region **passes through these waters.**
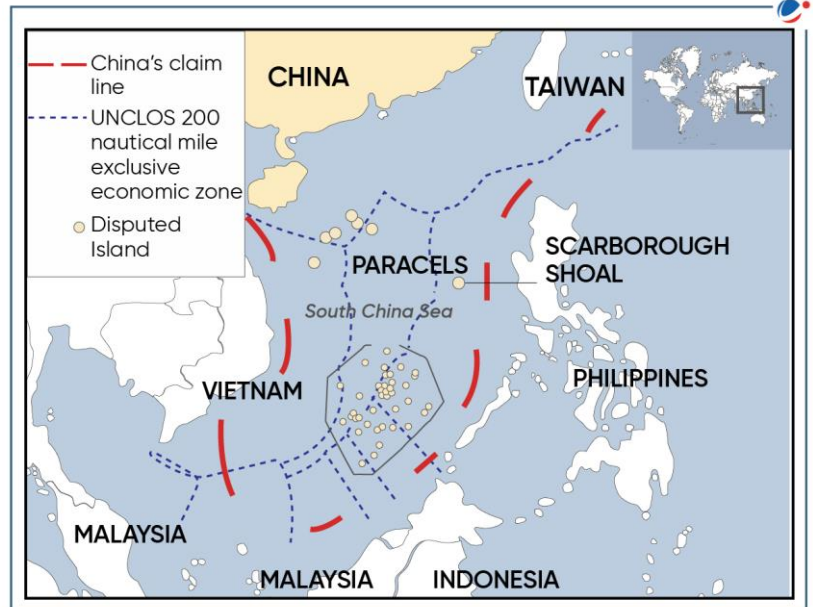
Nine Dash Lines:
- It is a **U-Shaped line that was adopted from Chinese map of 1940's** which represents the Chinese claim over the region. **It accounts for around 90% of the total South China sea.**
- **Till 1952, it was Eleven dash lines** and the Communist China gave up its claim on **Gulf of Tonkin**.

Challenges in South China Sea

Chinese Aggression by militarising uninhabited islands and creating artificial islands.

Excessive Fishing and no concurrent steps are taken to control it as a whole.

Damage to the marine ecosystem by building of artificial islands by China.

Military drills by the littoral states, in order to highlight the dominance over the region.

Global Commons: Adhering to the claims of China will affect the global commons of freedom of navigation and trade

- **Natural Reserves:** The region is said to host vast reserves of Oil, Natural Gas, Coral Lime, high Silicate, Sand, quality Gem, natural pearls.
  - **ONGC Videsh Limited (ONGC-VL) along with PetroVietnam** is exploring for Oil reserves in the region, which could help to secure India's energy needs
- **Fishing grounds:** The sea is **warm throughout the year** and is considered as one of the major commercial fishing regions of the world.
- **Numerous uninhabited islands:** The region hosts **numerous uninhabited islands**, which could also be used a ports, military bases, research avenue etc.
- **Freedom of Navigation:** Acknowledging the claims of China will affect the freedom of navigation in the region, which may **set a wrong precedent for such claims in other parts of the world too.**
- **Act east policy**: The countries being bullied by China in the region are **members of the ASEAN** grouping, with which India has various economic and strategic ties.

Way Forward

- **By achieving a Code of Conduct in the region:** The stalled code of conduct negotiation process since 2018, should be revived and a code for the region should be established.
- **Practicing Sustainable fishing:** Excessive fishing in the region should be controlled and the practice of sustainable fishing should be followed collectively among all the littoral states.
- **Establishing Trans boundary Maritime Peace Parks (MPP):** MPP's similar to the **Red Sea MPP established between Israel and Jordan,** to be established to foster cooperation and peace between countries and to conserve ecosystems.
- **Stalling artificial island projects:** The creation of new artificial islands, which tends to cause severe ecological damages should be stalled.
- **Ensure Freedom of passage:** uninterrupted Freedom of passage should be ensured to all civilian and trade vessels crossing the region.

2.7. NAGORNO-KARABAKH REGION

Why in the News?

Recently, Azerbaijan launched an "**anti-terrorist**" offensive in Nagorno-Karabakh and claimed to have regained full control over the region.

More about News

- Earlier in December 2022, the **Lachin Corridor** was blockaded by Azerbaijan, causing severe shortages of essential goods including food, fuel and water in Nagorno-Karabakh.
  - **Lachin Corridor** is a 5 km long corridor connecting the conclave to Armenia.

About Nagorno-Karabakh Conclave

- Nagorno-Karabakh is a **mountainous region which** is claimed by both Armenia and Azerbaijan.
- However, its **1.2 lakh population** is predominantly ethnic Armenian, having close cultural, social, and historical ties with Armenia.
- **Historical Background of the Conflict**
  - The region has seen **conflicts of influence** between regional powers since the medieval period — **imperial Russia,** the **Ottoman Empire (modern-day Turkey) and the Persian Empire (Iran).**
  - **Era of Soviet Union:**
    - When **Czarist Russia** gave way to the Soviet Union in 1921, Nagorno-Karabakh was part of the **Azerbaijan SSR (Soviet Socialist Republic).**

- ✓ In 1923, USSR established the **Nagorno-Karabakh Autonomous Oblast (province)** within the Azerbaijan Soviet Socialist Republic.
- ✓ When the Soviet Union was dissolved in **1991** and Armenia and Azerbaijan achieved statehood, **Nagorno-Karabakh officially declared independence.**
- **War between Armenia and Azerbaijan:**
  - o **First War:** Tension started in **1988**, with its **regional legislature passing a resolution declaring its intention to join Armenia.**
    - ✓ In 1994, Russia brokered a ceasefire known as the **Bishkek Protocol.**
    - ✓ This made **Nagorno-Karabakh de facto independent** with a self-proclaimed government in **Stepanakert.**
  - o **Second War:** Started in 2020, this time Azerbaijan managed to wrest control of the territory around Nagorno-Karabakh.
    - ✓ Russia again brokered a deal but Azerbaijan wanted more concessions and no peace deal was inked.
- **Initiatives to Maintain Peace in the region**
  - o **The Minsk Group**, co-chaired by Russia, the U.S., and France, was created by the **Organisation for Security and Cooperation in Europe (OSCE)** in early 1990s to arrive at a peaceful resolution for Nagorno-Karabakh.
    - ✓ **Madrid Principles by Minsk group** suggested that giving control of seven Karabakh districts to Azerbaijan, Self-governance to the region, etc.
    - ✓ However, they were not accepted, even after another modifications in **2011.**

> **India's Stand**
> - In 2020, after the conflict broke out, India stated that any lasting resolution of the conflict can only be achieved peacefully through **diplomatic negotiations**.
>
> **India's interest in the Region**
> - **Connectivity**: Armenia is a crucial player in the planned **International North-South Transportation Corridor**.
> - **Geo-political interest:** In 2017, Turkey, Azerbaijan, and Pakistan, established security cooperation.
> - **Trade:** India's trade relation with Armenia is **134.1 USD million** (2022-2023) and with Azerbaijan **1.882 USD billion in 2022**.

Conclusion

Diplomatic negotiations can be an effective way to resolve conflicts. The Minsk Group can learn from the India-Bangladesh enclave exchange of 2015, to suggest some concrete steps to solve the dispute and bring the peace permanently in the region.

2.8. NEWS IN SHORTS

2.8.1. INDIA UAE SIGN RUPAY DOMESTIC CARD SCHEME (DCS) AGREEMENT

- **NPCI International Payments Limited** (NIPL) and **Al Etihad Payments (AEP)** signed a strategic partnership agreement for **implementation of DCS in the UAE.**
  - o NIPL is a **wholly-owned subsidiary** of National Payments Corporation of India (NPCI).
  - o NIPL strives to **assist other countries** in establishing their **own cost-efficient, and secure payment systems.**
- The partnership will seek to **diversify payment options**, **reduce transaction costs**, and enhance the **UAE's global competitiveness** in the **payments industry.**
  - o UAE's DCS aims to **accelerate** the growth **of e-commerce and digital transactions**, advance **financial inclusion**, and align with the UAE's ambitious **digitization agenda.**
  - o DCS solution provided by NIPL consists of a **RuPay stack** and value-added services like **fraud monitoring services and analytics,**

National Payments Corporation of India (NPCI)

- **About:** NPCI is an **umbrella organisation** for operating **retail payments and settlement systems** in India.
- **Genesis:** It is an **initiative of RBI and Indian Banks' Association (IBA)** under **Payment and Settlement Systems Act, 2007.**
- **Structure:** It is registered as **a "Not for Profit" Company under Companies Act 2013.**
- **Mandate:**
  - o To **provide infrastructure to the entire Banking system** in India for physical as well as electronic payment and settlement systems.
  - o Bringing **innovations in the retail payment systems** through use of technology.
- **Other NPCI product:**
  - o National Financial Switch (NFS)
  - o Immediate Payment Service (IMPS)
  - o Aadhaar Enabled Payment System (AePS)
  - o National Automated Clearing House (NACH)
  - o National Electronic Toll Collection (NETC)
  - o Bharat Bill Payment System (BBPS)
  - o Unified Payments Interface (UPI)
  - o Aadhaar Payment Bridge (APB)

- **About RuPay cards**
  - o **RuPay cards** are India's **indigenous card payment** network provided by the **NPCI.**
  - o They have **debit, credit, and prepaid** propositions.

- o They make up **more than 60% of total cards** issued in India.
- o They are **issued through public sector, private, and small banks.**

2.8.2. INTERNATIONAL CRIMINAL COURT (ICC)

- Armenia's Parliament voted to join the International Criminal Court.

International Criminal Court (ICC)
Hague, Netherlands

Genesis: Established by **Rome Statute** of International Criminal Court in 1998.

About: **Permanent international court** governed by an international treaty, **Rome Statute**

Members: **123 countries** are party to Rome Statute. **India is not a member.**

Composition: It has **18 judges** elected by the Assembly of States Parties. They serve for 9-year, non-renewable terms.

Objective: **To investigate and prosecute individuals** accused of serious international crimes: genocide, crimes against humanity, war crimes, and aggression.

Other Key Information: **Judgments are final** without appeal and binding upon the parties concerned.
- Only States are eligible to appear before the Court in contentious cases.

2.8.3. COMPREHENSIVE NUCLEAR TEST BAN TREATY (CTBT)

- **Russia indicated towards revoking its Ratification of the (CTBT).** It says that withdrawal from ratification of nuclear weapons test ban treaty aims to place Russia on 'equal footing' with the US, which has signed but not ratified the pact.
  - o The US has not ratified the CTBT by citing the **difficulty in verifying whether or not participant States meet the rules of the Treaty.**
- CTBT is a multilateral treaty which **prohibits any nuclear weapon test explosion** or any other nuclear explosion anywhere in the world.
  - o It **bans all nuclear explosions**, whether for **military or peaceful purposes**.
- The treaty was opened for signature in September 1996 and has been **signed by 187 nations and ratified by 178.**
- The treaty cannot formally enter into force **until it is ratified by 44 specific nations**, eight of which have yet to do so: **China, India, Pakistan, North Korea, Israel, Iran, Egypt, and the United States**.

Other treaties for Nuclear disarmament

Treaty on the **Non-Proliferation of Nuclear Weapons (NPT)** → entered into force in 1970

Treaty on the **Prohibition of Nuclear Weapons (TNPW)** → entered into force in 2021
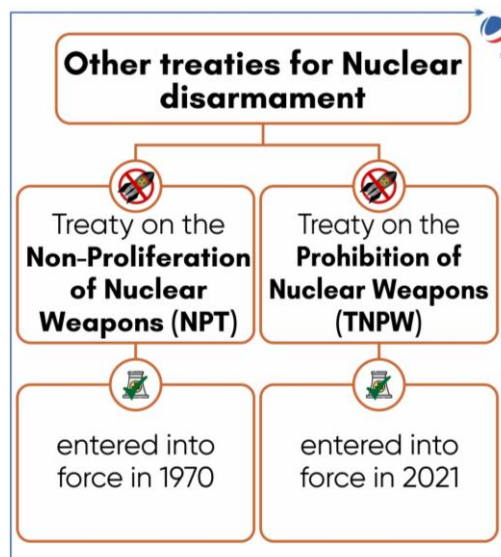
- **Reasons for India not signing and ratifying CTBT**
  - o CTBT did **not insist on a complete disarmament**.
  - o As a party to the CTBT, India cannot test and develop nuclear weapons whereas China would retain its arsenal as per the NPT.

2.8.4. UNITED NATIONS CONVENTION AGAINST TRANSNATIONAL ORGANISED CRIMES (UNTOC)

- **20th Anniversary of (UNTOC)** celebrated in Italy. **Transnational organized crime** defined as illegal activities, conducted by groups or networks acting in concert, by engaging in violence, corruption, etc for financial or material benefit in two or more countries.
- UNTOC was adopted by **UN General Assembly in 2000** and entered into force in **2003.**
  - o It is the first **comprehensive and global legally binding instrument** to fight transnational organized crime.
- Convention is further supplemented by **three Protocols:**

Three Protocols

Protocol to **Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children**

Protocol against the **Smuggling of Migrants by Land, Sea and Air**

Protocol against **the Illicit Manufacturing of and Trafficking in Firearms, their Parts,** etc.
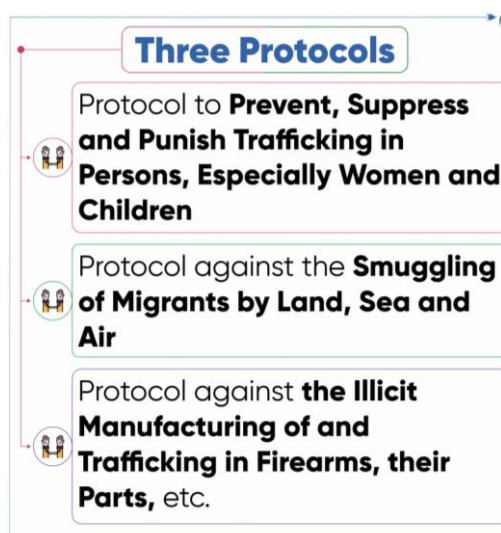
- Countries must become parties to the Convention itself before they can become parties to any of the Protocols.
- **Members**: Signatories-147 and Parties-191. (India ratified it in 2011).
- **India's initiatives**
  - **Central Bureau of Investigation** is the national Nodal Authority to receive and respond for transnational crimes.
  - **Criminal Law Amendment Act, 2013** has been enacted wherein human trafficking has specifically been defined.

2.8.5. ASIA-PACIFIC INSTITUTE FOR BROADCASTING DEVELOPMENT

- India was **reelected as president o**f AIBD for **third successive term.**
- **AIBD,** headquartered in Kuala Lumpur (Malaysia), was **established in 1977** under **United Nations Educational, Scientific and Cultural Organisation (UNESCO).**
  - International Telecommunication Union (**ITU**), UN Development Programme **(UNDP)** are also its founding organisations.
- It has **26 Government Members countries including India** represented by their **48 broadcasting authorities.**
- It envisages to achieve a **vibrant electronic media environment** in the region.
- **Functions:**
  - To **establish inter-regional links and cooperation** for media and communications development
  - A **think-tank for the development of regional programming**

2.8.6. INDIAN OCEAN RIM ASSOCIATION'S (IORA)

- **IORA Council of Foreign Ministers (COM) meeting held in Colombo (Sri Lanka).**
- **Key highlights of the meeting.**
  - **'Strengthening Regional Architecture: Reinforcing Indian Ocean Identity'** was theme of meeting.
  - '**Colombo Communique and 'IORA Vision 2030 and Beyond'** was adopted.
  - **Saudi Arabia** was formally welcomed as **11th Dialogue Partner.**
  - IORA **Chairship** was transferred from **Bangladesh to Sri Lanka** for **2023-2025.**
    - **India will** take chairship during 2025-2027.

- **About IORA**
  - It is an **Inter-governmental organisation** established in **1997,** based on vision of **Nelson Mandela.**
  - It aims to **strengthen regional cooperation and sustainable development** within **Indian Ocean region (IOR).**
  - **It has 23 members** (witin IOR).
  - **CoM** which meets annually is **apex body**
  - **6 Priority areas with 2 cross cutting issues** including maritime safety and security; fisheries management; disaster risk management; etc.
  - **'Special fund'** supports projects and programs.
  - **'IORA's outlook on Indo pacific'** calls for adherence 1982 **UN Convention on the Law of the Sea** and other relevant UN treaties.
  - **Comprises**
    - **1/3rd** of **world's population**
    - **80%** of **global oil trade**
    - Produces ~**$1 trillion in goods and services**
    - **Intra-IORA trade** is around **$800 billion.**
  - **Importance for India:**
    - Avenue to keep out **big-power rivalries** including China from IOR.
    - **Less contentious space for** regional cooperation **India** since Pakistan is not a member.

2.8.7. INTER-PARLIAMENTARY FORUM (IPU)

- **Ninth P20 Summit will be hosted by the Parliament of India in cooperation with IPU in** New Delhi.
  - **P20 Summit** is an **annual gathering** of G20 **Parliament Speakers** discussing global issues.

Inter Parliamentary Union

HQ: Geneva, Switzerland.

Genesis: Established in 1889 as a small group of parliamentarians.

About: It is the global organization of national parliaments, that **facilitates parliamentary Diplomacy**

Member: 179 Members and 14 Associate Members.
is India a member ✓

Objective: Parliamentary ecosystems for Democracy, for everyone: **Building effective, inclusive, resilient and innovative parliaments.**

3. ECONOMY

3.1. CONTRIBUTIONS OF M S SWAMINATHAN

Why in the News?

Mankombu Sambasivan Swaminathan, popularly known as M.S. Swaminathan, the legendary agricultural scientist passed away recently.

About M.S. Swaminathan

- A plant geneticist, he is regarded as the **father and key architect of India's green revolution** and is also often referred to as the **"Farmers' Scientist".**
- He was the recipient of the **first World Food Prize** in 1987 for his leadership in India's Green Revolution.
- He is also a recipient of **Padma Vibhushan, the Ramon Magsaysay Award** and several other national and international recognitions.

Scientific contributions of M S Swaminathan

- **Genetic Research:** He worked on **breeding programs to develop crop varieties** that were not only **high yielding but also resistant to pests and diseases**.
  - His efforts led to the creation of **several new crop varieties** that were better suited to the Indian climate and agricultural conditions.
- **Rice varieties:** At the Central Rice Research Institute (CRRI), Cuttack, Swaminathan worked in the **indica–japonica rice hybridization programme** to develop **fertilizer-responsive, high-yielding and short-stature varieties of rice** to replace locally available, tall and low-yielding varieties.
  - The work resulted in varieties like **ADT27, and RASI**. Varieties developed under this project directly **contributed to the Green Revolution** in India.
  - Under his guidance, the scientists genetically engineered **the salinity-tolerance genes** of a mangrove species (Avicennia marina) **into the cultivated rice plant**.
  - He initiated a **rice breeding programme** to transfer the non-lodging plant type to basmati strains, leading to release of **Pusa Basmati**.
- **Wheat varieties:** He then shifted his focus to wheat from rice. During that time, all local wheat varieties were **tall, and these 'lodged'** (i.e. fell flat on the ground) when their earheads were full of heavy grains.
  - **None** of the varieties of the cultivated wheat **had the 'genes' for dwarfing the height** of the plants **without reducing yield**.
  - **New Mexican wheat dwarf variety containing Norin Genes were developed by Norman Borlaug**, an American agronomist, and scientists at the International Rice Research Institute.
  - He identified the **potential of Mexican wheat dwarfs** which are dwarf, resistant to diseases and also high-yielding.
  - With help of Borlaug and additional research on these wheat varieties, he developed **'Sonalika' and 'Kalyan Sona' varieties**.
- **Potato hybrid:** He developed a **frost-resistant potato variety called 'Alaska Frostless'**.
- **Participatory Breeding:** He also fostered 'participatory breeding' in which **farmers are assisted to develop new locally adapted varieties**.

Contribution in Economic Ecology

He has been described by the United Nations Environment Programme as **"the Father of Economic Ecology"** because of his leadership of the **ever-green revolution movement in agriculture**.

- **Evergreen Revolution:** He concentrated his efforts on an **"evergreen" revolution**, which he defined as "**improvement of productivity in perpetuity without ecological harm**".
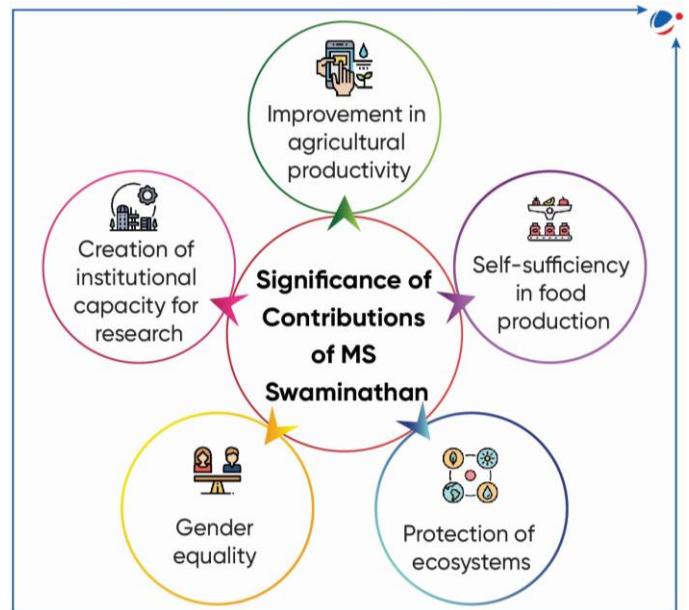
- **Approach:** It is based on appropriate **blend of different approaches** such as **organic farming, green agriculture, eco-agriculture and agriculture based on effective micro-organisms**.
  - He advocated for a **"do-ecology" approach** to ensure that ecologically sustainable farming technologies become available.
  - He proposed idea of **4Cs - Conservation, Cultivation, Consumption and Commercialization** for reconciling conservation and development in the sphere of farming activities.
- **Technological adoption:** He advocated for harnessing the best in frontier technologies and blending them with our rich heritage of ecological prudence.
  - He promoted sustainable agriculture and rural development using innovative paradigms such as **ecotechnology-based biovillages and modern information and communication-based Village Knowledge Centres (VKCs)**.

Policy and Institutional Contributions of M S Swaminathan & its relevance till today

- **National Commission on Farmers (NCF):** NCF was formed under the chairmanship of Swaminathan.
  - One of its major recommendations is that **Minimum Support Price (MSP)** should be **at least 50% more** than the **weighted average cost of production**.
  - It also **recommended formation of VKCs, conservation farming, soil testing laboratories**, expansion of credit system and public distribution system.
- **M.S. Swaminathan Research Foundation (MSSRF):** He used the funds he received from World Food Prize to open a **research center, MSSRF**, in Chennai, India, in 1988.
- **Protection of plant varieties:** He played a pivotal **role in developing the 'Protection of Plant Varieties and Farmers' Right Act 2001'** as India's response to its obligation to provide sui generis protection to plant varieties under TRIPS.
- **Food Security:** He suggested two steps for integrating nutrition in farming:
  - A **genetic garden of biofortified plants** to introduce farmers to plants which can provide them with the needed micronutrients and proteins.
  - **Community hunger fighters**, well versed with the malnutrition problems of the area as well as the methods to overcome them.
- **Disaster Management:** He advocated for adoption of **concepts of "drought code", "flood code" and "good weather code",** indicating the proactive measures that need to be taken.
- **Research institutions:** He helped in **establishment of several institutions which include:**
  - International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) at Patancheru, near Hyderabad
  - International Board for Plant Genetic Resources (IBPGR) in Rome (now known as Biodiversity International)
  - International Council for Research on Agro-Forestry (ICRAF) in Nairobi
  - International Centre for Genetic Engineering and Biotechnology (ICGEB) in New Delhi
- **Five-year plans:** He played a key role in **shaping the Sixth Five Year Plan (1980–1985)** where, for the first time, he introduced two new chapters, one on '**Women and development' and another on 'Environment and development'.**
- **UN Millenium Project:** He co-chaired the UN Millennium Project, which in early 2005 developed **clear targets and a practical plan** for reducing poverty, hunger, disease, illiteracy, environmental degradation, and discrimination against women, to be achieved over the following decade.

Conclusion

MS Swaminathan championed the cause of farmers, ensuring that the fruits of scientific innovation reach the roots of our agricultural expanse, fostering growth, sustainability, and prosperity for generations to come. His ideas, research and vision for Indian agriculture **still guides the policymakers to create a resilient, self-sufficient, and scientific agriculture ecosystem.**

3.2. INDIAN COUNCIL OF AGRICULTURAL RESEARCH (ICAR)

Why in the News?

Recently, International Research Conference on **'From research to impact: Towards Just and Resilient Agri-Food Systems'**, hosted by the **Indian Council of Agricultural Research (ICAR)** and **Consultative Group on International Agricultural Research (CGIAR)** GENDER Impact Platform was inaugurated.

Role of ICAR towards better and resilient agri-food systems

- **Crop varieties:** Played a pioneering role in ushering **Green Revolution** through developing new high yielding varieties of different crops:
  - **Rice varieties** like Jaya (first rice variety released in India), Swarna, Pusa Basmati 1121, (world's longest basmati rice), **Wheat varieties** like HD 2967, DBW 187, HD 3086 etc, **Fruit varieties** like Amrapali, Pomegranate Bhagwa etc.

Indian Council of Agricultural Research (ICAR)

New Delhi HQ

🏛 **Ministry:** Ministry of Agriculture and Farmers Welfare.

⚗ **Genesis:**
- ○ **Formerly known as Imperial Council of Agricultural Research,**
- ○ **Established in 1929** as a registered society under the Societies Registration Act, 1860 in pursuance of the **report of the Royal Commission on Agriculture.**
- ○ **Autonomous organisation** under the Department of Agricultural Research and Education (DARE),

⚙ **Function:** **Apex body** for coordinating, guiding and managing **research and education in agriculture** including horticulture, fisheries and animal sciences in the entire country.

📋 **Other Information:** With 113 ICAR institutes and 74 agricultural universities spread across the country this is one of the **largest national agricultural systems in the world.**

- **Seed programs:** ICAR deposited seeds in **the Svalbard Global Seed Vault** as safety duplicates.
- **Genomics:** Helped establish **the National Gene Bank** in New Delhi, (second largest gene bank in the world), having **more than 450 thousand indigenous and exotic accessions of crop species** and a large **cryopreservation bank**.
  - ICAR partnered in the **global genome sequencing of rice, wheat, tomato and potato** and independently sequenced the **genome of pigeonpea, jute, mango and fishes**.
- **Integrated Farming: Promotion of Integrated Farming System** with its added advantage of waste recycling, climate resilience and risk minimization.
  - **Developed models of agro-forestry to promote agri-horti, agri-silvi and silvipastoral systems** for raising farmers' income.
  - Improving productivity of **indigenous breeds of cattle** through field progeny testing and selection. Indigenous breeds include Sahiwal cow, Tharparkar bull, Gir cattle, Banni buffalo and Kankrej cow.
  - **Improved poultry farming** with increasing productivity of desi birds such as CARI Nirbheek, Kadaknath, Ankaleshwar etc.
- **Health:** Vaccines and diagnostics developed by ICAR contributed to improved health management and enhanced livestock productivity.
  - **Animal diseases namely Rinderpest, contagious bovine pleura-pneumonia,** African horse sickness and Dourine eradicated from the country.
- **Climate Smart Farming:** It is being promoted through **rainwater harvesting, community ponds, climate resilient varieties** such as Rati ML 365, Pigeonpea BRG 1, BRG 2 and BRG 5, and hydroponic cropping.
- **Bio-technology solutions:** ICAR undertook crop biofortification to tackle malnutrition. Biofortified crops include Solapur Lal (first biofortified pomegranate variety), Groundnut Girnar 4 and 5, Pusa Double Zero Mustard 31 (first canola quality Indian mustard variety) etc.
  - Developed **Pusa decomposer** for in situ and ex situ crop residue decomposition to mitigate residue burning problems.
  - India developed **first cloned buffalo** in the world and Pratham, the world's first in-vitro fertilized buffalo calf.
- **Blue Revolution:** Promoted **cage culture** – a low volume high density fish farming system - which raised per unit productivity.
  - ICAR developed **Ecosystem Health Index (EHI)** to monitor coastal ecosystem, identified biofence to mitigate effects of ocean pollution and intensified identification of invasive alien species.
  - ICAR is working towards development of **coldwater fisheries** sector in all the Himalayan states.
- **Agricultural mechanization:** Developed technologies in agricultural engineering including millet mill, drone remote sensing, mulch laying machine etc.

Consultative Group on International Agricultural Research (CGIAR)
- Established in **1971**, it is a strategic partnership of donors that support 15 international research centres, working in collaboration with government, civil society organizations and private businesses.
- CGIAR is a **global research partnership for a food-secure future** dedicated to transforming food, land, and water systems in a climate crisis.
- It focuses on **five impact areas** (see image).

Impact Areas

- Nutrition, Health, and Food Security
- Poverty Reduction, Livelihoods, and Jobs
- Gender Equality, Youth, and Social Inclusion
- Climate Adaptation and Mitigation
- Environmental Health and Biodiversity
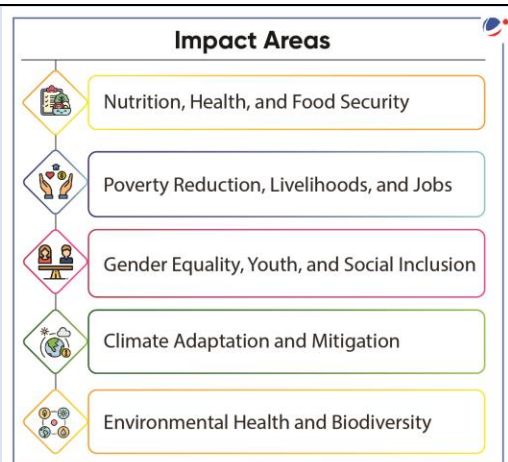
3.3. NATIONAL TURMERIC BOARD

Why in the News?

Government of India has notified **establishment of a National Turmeric Board** in the state of **Telangana.**

About National Turmeric Board

- **Key Objectives of the board**
    - **Create demand in domestic and international markets** through promoting **new product and value addition.**
    - **Create and improve infrastructure and logistics** for exports of turmeric and turmeric products.
    - **Ensure quality and safety standards** across the supply chain of turmeric.
    - **Document the traditional knowledge** related to use of turmeric and its applications.
    - **Encourage studies, clinical trials and research** on medicinal, health and wellness enhancing properties of turmeric.
- **The Board is to consist of**
    - **A Chairperson**, selected by the Central Government
    - **Four members to represent the Ministries** of **Commerce, Agriculture, Ayush, and Pharmaceuticals**
    - **Eight other members related to Turmeric value chain.**
    - The proposed board is to work **under the aegis of Ministry of Commerce**

Turmeric (Curcuma Longa) in India

- India is the **largest producer, consumer and exporter of turmeric** in the world.
- **Key Features:**
    - Tropical plant belonging to **the ginger family (Zingiberaceae)**
    - **Temperature range**: 20 to 35 °C
    - **Rainfall**: 1500 mm or more
    - **Soil:** Well drained red loamy soil
    - **Duration**: Rhizomes are harvested 9 to 10 months after planting
    - It contains a natural active ingredient called "**Curcumin**" which gives the turmeric its colour and has antioxidant and anti-inflammatory properties.
- **Cultivation**: Turmeric is **cultivated in an area of 3.24 lakh ha** in India with a production of **11.61 lakh tonnes** which amounts to **over 75% of global turmeric production**
    - More than **30 varieties of Turmeric are grown in India** and the largest Turmeric producing states are **Maharashtra, Telangana, Karnataka and Tamil Nadu**.
- **Bangladesh, UAE, USA and Malaysia are the main export markets** of Indian turmeric whose value if expected to reach **$ 1 Billion by 2030**.

Conclusion

The establishment of a separate board not only adheres to the decade long demand of the Turmeric farmers in India, but also has opened the avenues for India to get a strong hold of the turmeric exports in the international market

3.4. NOBEL PRIZES 2023

Why in the News?

Nobel Prizes for 2023 were announced recently.

About Nobel Prize

- The Nobel Prize is an **international award** administered by the Nobel Foundation in Stockholm, Sweden, and based on the last will of **Alfred Nobel** (in **1895**).
  - Alfred Nobel, a Swedish inventor, and entrepreneur, is popularly known for inventing **dynamite, blasting cap,** and **smokeless gunpowder**.
- **Categories:** Instituted in **1901**, the **prize** is **awarded annually** from the bulk of fortune left by Alfred Nobel in **five categories**: **Physics, Chemistry, Physiology or Medicine, Literature** and **Peace** - conferred to people for the **greatest benefit to humankind** in preceding year.
  - The **sixth category**, the **Nobel Prize in Economic Sciences**, was instituted in **1968** by the **Royal Bank of Sweden** and was **first awarded** in **1969**.
- **What do the winners receive?:**
  - A **Nobel diploma**, each of which is a unique work of art;
  - A **Nobel medal**;
  - A **cash prize of 10 million Swedish kronor**. (They have to deliver a lecture to receive the money).

Indian Noble Prize Winners*

RABINDRANATH TAGORE
Nobel Prize for **Literature (1913)**
For-Profoundly sensitive, fresh and beautiful Writing, by which with consummate skill, he has made his poetic journey

CV RAMAN
Nobel Prize for **Physics (1930)**
For-Work on scattering of light and discovery of Raman Effect

HAR GOBIND KHORANA
Nobel Prize in Physiology or **Medicine (1968)**
For-Interpretation of genetic code and function in protein synthesis

MOTHER TERESA
Nobel **Peace Prize (1979)**
For-Work in bringing help to suffering humanity

SUBRAMANYAN CHANDRASEKHAR
Nobel Prize for **Physics (1983)**
For-Studies of Physical processes of importance to structure and evolutionof stars
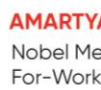
AMARTYA SEN
Nobel Memorial Prize in **Economic Sciences (1998)**
For-Work Contributions to welfare economics

VENKATRAMAN RAMANKRISHNAN
Nobel Prize in **Chemistry (2009)**
For-Studies of structure and function of ribosome

KAILASH SATYARTHI
Nobel Peace **Prize (2014)**
For-Struggle against the suppresssion of children and young people and for the right of all children to education

ABHIJIT BANERJEE
Nobel Prize in **Economic Sciences (2019)**
For-Experimental approach to alleviating global poverty

*Five of them are Indian citizens and four are of Indian origin.

- **Who awards the prizes?**
  - The Royal Swedish Academy of Sciences awards the **Nobel Prize in Physics, Chemistry and Economics**.
  - The **Nobel Prize in Literature** is awarded by the **Swedish Academy, Stockholm, Sweden.**
  - The **Nobel Assembly** at **Karolinska Institute, Stockholm, Sweden** awards the **Nobel Prize in Medicine (Physiology)**.
  - **The Norwegian Nobel Committee** is responsible for the selection of eligible candidates and the choice of the **Nobel Peace Prize** laureates.
- **Prize winners are called laureates**, to signify the laurel wreath given to victors of contests in ancient Greece. **More than one, but no more than three, people can win each prize.**
- The Nobel statutes **prohibit the judges from discussing their deliberations for 50 years**.

Kindly note that, Nobel Prize in Chemistry, Physics and Medicine have been covered under Science and Technology section. Nobel Prize in Literature and Nobel Peace Prize are covered under Culture and Social Issues sections respectively.

3.4.1. NOBEL PRIZE IN ECONOMICS: WOMEN IN LABOUR FORCE

Why in the News?

The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2023 has been awarded to **Claudia Goldin for advancing understanding of women's labour market outcomes**.

More on News

- Over the past century, the proportion of women in paid work has tripled in many high-income countries. This is one of the **biggest societal and economic changes** in the labour market in modern times, but **significant gender differences remain**.
- Claudia Goldin's research has given us **new and often surprising insights** into women's historical and contemporary roles in the labour market.

Status of Gender Differences

- **Global Status:** Globally, around **50% women are in paid employment**, while the equivalent figure for men is 80%.
  - In South Asia, only around 25% of women participate in labour market.
- **Status in India:** In India, the labour force participation rate among **females is 24% and among males is 73.6% for 2022.**
  - **Vulnerable employment** (forms of self-employment associated with lower labour income and low job security) among women is 77.3% and among men is 72.9% in India for 2021.
- **U-shaped relationship:** There is a posited U-shaped relationship between development (proxied by GDP per capita) and female labour force participation.
  - Women's labour force participation is **high for the poorest countries (higher share of agriculture), lower for middle income countries, and then rises again among high income** countries.
- **Earnings Gap:** When women work, they **usually earn less**. In India, the gender earnings gap is **most skewed amongst self-employed workers**.
  - In India, the earnings gap has reduced, and women earned 76% of what men did in 2017, compared to 70% in 2004. Since then, the gap has remained constant till 2021-22.
- **Opportunities:** Women are **less likely to work in formal employment** and have fewer opportunities for business expansion or career progression.

Factors influencing female labour force participation

- **U-shaped curve:** Previously, it was concluded that there was a clear positive association between economic growth and the number of women in paid employment.
  - Goldin's U-curve demonstrated that there is **no historically consistent association between women's participation in the labour market and economic growth**.
- **Social norms:** Legislation or customs known as **"marriage bars"** often prevented married women from continuing their employment despite increased demand for labour.
  - Also, women often **left the workforce for an extended period after marriage**. This influenced their decisions regarding education choices which determined job opportunities they could have at a later stage in life.
- **Technological innovations:** Innovation of the contraceptive pill resulted in women delaying marriage and childbirth, **thus increasing their education and career prospects.**
  - However, this **did not mean that the earnings gap between women and men completely disappeared**, though it has become significantly smaller since the 1970s.
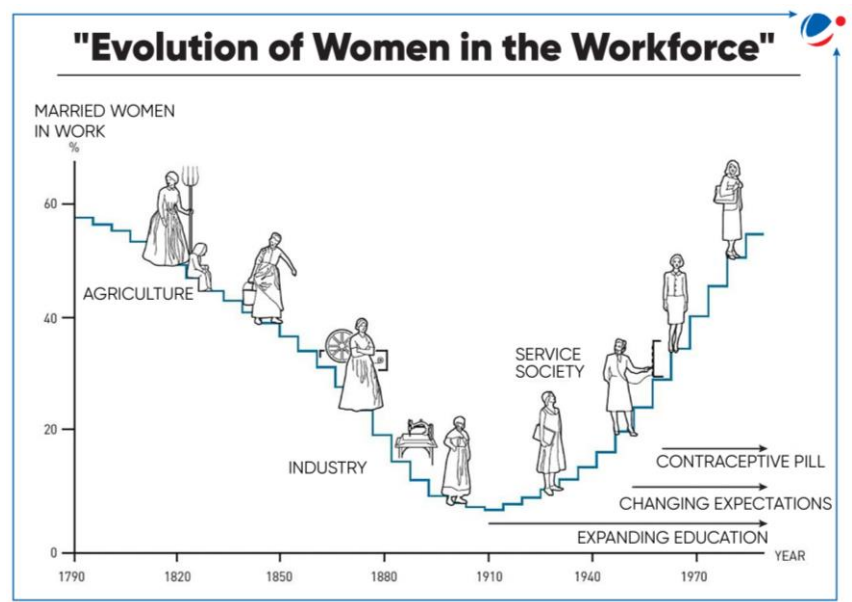
- **Monthly pay system:** Despite economic growth, increasing education levels among women and a doubling in the proportion of women working for pay, the earnings gap essentially stayed the same between 1930 and 1980.
  - This was partially due to **abandoning of piecework contracts** (paid in relation to their productivity) and adoption of **modern pay systems** (monthly wages).
- **Parenthood effect: Women taking greater responsibility** than men for **childcare** (care economy) makes their career progression and earnings increases more difficult.
  - Many sectors of contemporary labour markets expect employees to be constantly available and flexible in the face of employer's demands, which is difficult after childbirth.

Way forward- Reducing gender differences in the workforce

- **Assessment:** Policymakers who want to affect these differences must first understand why they exist.
- **Collective action:** Collective, coordinated and bold action by private- and public-sector leaders will be instrumental in accelerating progress towards gender parity.
- **Investment:** Investments in providing women equal access to information, education and healthcare reaps large dividend in terms of gender parity.
  - Brazil introduced the Emergency Aid cash transfer program early in the pandemic, which provided double the benefits to women-led households, decreasing poverty rate.
- **Congenial environment:** Reforms to taxation, public spending, financial infrastructure and regulations, as well as labour markets that removes institutional barriers.
  - In Norway, the expansion of universal childcare increased the likelihood of mothers' employment by 32 percentage points.

> **Measures taken for reducing gender gap in India**
> - **Code on Social Security 2020:** Enhancement in paid maternity leave to 26 weeks, mandatory crèche facility in the establishments having 50 or more employees, permitting women workers in the night shifts with adequate safety measures, etc.
> - **Code on Occupational Safety, Health and Working Conditions (OSH), 2020:** Employment of women in the aboveground mines including opencast workings and in below ground working in technical, supervisory and managerial work where continuous presence may not be required.
> - **Code on Wages 2019:** No discrimination in an establishment among employees on the ground of gender.
> - **Training and skill development:** Training to women through a network of Women Industrial Training institutes, National Vocational Training Institutes and Regional Vocational Training Institutes.

- **Tackling biases and social norms:** Gender-based discrimination in social institutions **costs the world economy $6 trillion** according to OECD.
  - Such costs can be reduced through social and legal actions such as curbing underage marriage, criminalizing domestic violence, and increasing the number of elected female officials.
- **Access to microfinance:** An International Growth Centre (IGC) project in India found that greater access to microfinance loans led to a significant increase in female labour force participation – with the effect driven by self-employment and not by salaried jobs.

3.5. NEWS IN SHORTS

3.5.1. PERIODIC LABOUR FORCE SURVEY (PLFS) REPORT 2022-2023

- **Launched by National Sample Survey Organization (NSSO) in 2017,** the key **objective** of PLFS is to **estimate** the key **employment and unemployment indicators** (viz. LFPR, WPR, UR) **annually**:
  - in the **short time interval of three months** for the **urban areas only** in **'Current Weekly Status' (CWS)** and
  - in both **'Usual Status'** and CWS in both **rural and urban** areas **annually.**
- **Key Indicators used in PLFS:**
  - **Labour Force Participation Rate (LFPR):** Percentage of **persons in the labour force** (i.e.

working or seeking or available for work) in the population.
  - **Worker Population Ratio (WPR):** Percentage of **employed persons** in the **population.**
  - **Unemployment Rate (UR):** Percentage of **persons unemployed** among the persons in the labour force.
  - **Activity Status:** It is determined on the basis of the **activities pursued** by the person **during the specified reference period** (preceding the date of survey).
    - ✓ **Usual Status:** Reference period is 365 days.
    - ✓ **Current Weekly Status (CWS):** reference period is 7 days.

Key findings of LFPS

Indicator		2017-18	2022-23	Trend
LFPR	Total	49.8 %	57.9 %	⬆
	Rural	50.7 %	60.8 %	⬆
	Urban	47.6 %	50.4 %	⬆
	Male	75.8 %	78.5 %	⬆
	Female	23.3 %	37.0 %	⬆
WPR	Total	46.8 %	56.0 %	⬆
UR	Total	6 %	3.2 %	⬇

3.5.2. BOND YIELD

- Recently, Reserve Bank of India (RBI) decision for **Open Market Operation (OMO) sale of government securities** (G-Sec) triggered a **spike in bond yields to their highest level** in FY 2023-24.
  - RBI uses OMOs in order to **adjust the rupee liquidity conditions** in the market on a durable basis.
- A bond is a **debt instrument** in which an **investor loans money to an entity** (typically corporate or government) which borrows the funds for a defined period of time at a **variable or fixed interest rate.**
  - Bonds are used by **companies, municipalities, states and sovereign governments to raise money** to finance a variety of projects and activities.
  - A G-Sec is a tradeable instrument **issued by the Central Government or the State Governments**. It acknowledges the **Government's debt obligation**.
  - Such securities are **short term** (usually called **treasury bills**, with original maturities of less than one year) or long term (usually called **Government bonds or dated securities** with original maturity of one year or more).
- A bond's yield is the **return an investor expects** to receive each year over its term to maturity.
  - For the investor, the bond yield is a **summary of the overall return** that accounts for the remaining interest payments and principal they will receive, relative to the price of the bond.
  - The yield is also commonly referred to as an **interest rate, or the "cost of borrowing" to an issuer**.
- If market interest rate levels rise, the price of a bond falls. Conversely, if interest rates or market yields decline, the price of the bond rises.
- The yield of a bond is **inversely related to its price.** When the price of a bond falls, yields rise.

Bond Prices and Yields
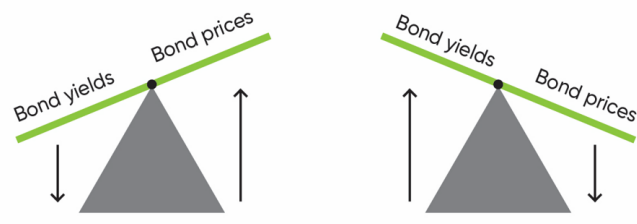
3.5.3. TRADE AND DEVELOPMENT REPORT 2023

- **United Nations Conference on Trade and Development (UNCTAD)** released Trade and Development Report 2023**.**
- **Key Findings of the Report:**
  - The report **discusses the current state of the global economy** and highlights several challenges.
  - **Global Economic Outlook**
    - ✓ The world economic growth is **projected to be 2.4% in 2023.**
    - ✓ The **entire global economy**, except East and Central Asia, **has slowed since 2022**.
    - ✓ **Worrying trends** are poorer nations' indebtedness, slower growth in major regions, and inadequate multilateral response.
  - **India's Economic Projections**
    - ✓ India's economic growth is forecasted to be **6.6% (in 2023) and 6.2% (in 2024).**
    - ✓ In India, the **external sector** alongside **the private and government sectors** has contributed to domestic growth.
    - ✓ **Concerns highlighted for India** are the unemployment rate of 8.5% in June 2023, and rising inequality.
- **Key recommendations**
  - **Financial Sustainability**: Central banks should strengthen international coordination with a focus on long-term financial sustainability for the private and public sectors.
  - **Social Protection**: Increase real wages and strengthen comprehensive social protection programs.
  - **Energy Transition Agreements**: Agreements within the G20, the WTO, the IMF, and the World Bank should be made to facilitate the energy transition, technology transfer, and reliable access to finance for climate adaptation.

- o **Trade regulation**: Internationally, a systemic approach to regulating commodity and food trading needs to be developed.
- o **Debt Servicing and Financial Architecture Reforms**: Reforms are needed in the rules and practices of the global financial architecture to address the crushing burden of debt servicing.

UNCTAD – United Nations Conference on Trade and Development
Geneva, Switzerland

About: UNCTAD is a **permanent intergovernmental body** of the United Nations.

Genesis: established by United Nations General Assembly in 1964.

Membership: 195 members **including India.**

Mandate: UNCTAD's work focuses on **four main areas:** trade and development, investment and enterprise, technology and innovation, and macroeconomics and development policies.

Functions:
- Helps developing countries participate more equitably in the global economy.
- Supports developing countries efforts to use trade, investment, finance, and technology as vehicles for inclusive and sustainable development.

Other Reports by UNCTAD:
- Trade and Development Report
- World Investment Report
- Digital Economy Report
- Technology and Innovation Report
- Review of Maritime Transport

3.5.4. PROMPT CORRECTIVE ACTION (PCA) FRAMEWORK

- RBI to **extend PCA supervisory norms to Govt-owned NBFCs** from October 2024.
- The objective of the PCA framework is to **enable supervisory intervention at the appropriate time** and requires the supervised entities to initiate and **implement remedial measures in a timely manner** so as to restore their financial health.

Corrective actions

Discretionary actions related to governance, capital, profitability and business.

Restriction on dividend distribution/remittance of profit

Restriction on branch expansion

- The PCA Framework for non-banking financial companies (NBFCs) was introduced on December 14, 2021.
- The **Framework has since been reviewed and it has been decided to extend the same to Government NBFCs** (except those in Base Layer) with effect from October 1, 2024, based on the audited financials of the NBFC as on March 31, 2024, or thereafter.
  - o **The base layer is categorised** as those Non-deposit-taking NBFCs, below the asset size of ₹1000.
  - o The other 3 layers are **the Middle Layer, Upper Layer and Top Layer**.
  - o Some of the major government NBFCs include PFC, REC, IRFC and IFCI.
- PCA Framework was introduced for NBFCs as these **lenders have grown in size and become systemically important due to interconnectedness** with other segments of the financial system.

3.5.5. RESERVE BANK OF INDIA (TREATMENT OF WILFUL DEFAULTERS AND LARGE DEFAULTERS) DIRECTIONS, 2023 RELEASED

- With these directions, RBI has **expanded scope for regulated entities** that can classify borrowers as wilful defaulters, **broadened definition of wilful default**, and **refined identification process**.
- **Key Highlights of Directions**

Applicability	• **All regulated entities**, including banks, NBFCs, Co-operative Banks, Regional Rural Banks, Local Area Banks, and All India Financial Institution (AIFI) including NABARD, SIDBI, EXIM Bank, NHB and NaBFID.
Definition	• A wilful defaulter is **a borrower or a guarantor** who has **defaulted without being constrained to do** and the outstanding amount is Rs 25 lakh and above. • A **large defaulter** is one whose amount in default is **Rs 1 crore and above**.
Review and finalisation on wilful default	• **Within six months** of an account being **classified as a non-performing asset (NPA).** • Earlier, there was **no specific timeline**.
Identification Process	• **Identification Committee:** Wilful defaulter classification after examining evidence from an identification committee, which will then issue a show-cause notice. • **Review Committee:** Considers the proposal of the Identification Committee for classification as a wilful defaulter.
Other provisions	• **No additional credit facility can be granted** to a wilful defaulter and it **remains in effect for up to 1 year** after removal from List of Wilful Defaulters.

| | • **Lender will be able to proceed against guarantor** even without exhausting the remedies against principal debtor. |

3.5.6. CARD-ON-FILE TOKENIZATION (COFT)

- RBI has introduced new channels for CoFT.
- The **tokenization process is used to replace card details by a unique token** or code.
- It **allows secure online purchases** without exposing sensitive details like card number, card verification value (CVV), etc.
- It has been **implemented since 2022** and at present, a CoFT token can only be created through merchant's application or webpage.
- It is now **proposed to introduce CoF token directly at the issuer bank level.**
- The new step **aims to eliminate the duplication of tokenization** process at each app along with **increased transaction security**, resulting in reduced card-data-related frauds.

3.5.7. 52ND GOODS AND SERVICES TAX COUNCIL (GST) COUNCIL MEETING HELD

- **Key recommendation**
  - **District Mineral Foundations Trusts** are **Governmental Authorities** and eligible for the same **exemptions from GST**.
  - Reduction of GST rate **from 28% to 5%,** on **molasses.**
    - ✓ It will f**acilitate faster payments to sugarcane farmers** from sugar mills.
  - Keep **Extra Neutral Alcohol (ENA)** used for manufacture of alcoholic liquor **for human consumption outside GST.**
    - ✓ ENA is **highly concentrated alcohol** and key ingredient for pharmaceuticals, perfumes, toiletries etc.
  - **Qualification of members of GSTAT:** Alignment of provisions of the CGST Act, 2017 with **Tribunal Reforms Act, 2021** to ensure
    - ✓ **Minimum age of President and Member** should be **50 years** and their **tenure** should be upto **age of 70 years** and **67 years respectively.**
- **About GST Council**
  - It is a **constitutional body** under **Article 279A** (101 Constitution Amendment Act, 2016).
  - **Chairperson**: Union Finance Minister
  - **Members**:
    - ✓ Union Minister of State, in-charge of Revenue
    - ✓ Minister in charge of finance or taxation or any other Minister nominated by each State Government

- **Function:** Making recommendations on issues related to implementation of GST
- **Decision-making through voting:** Decision requires a **3/4th majority** of members present and voting.
  - ✓ Centre's share is 33% of votes cast.

About **GST Appellate Tribunals (GSTAT)**

- **GSTAT** is a **statutory body** under the **Central GST Act, 2017**.
- It is the **forum of second appeal** in GST laws and the **first common forum of dispute resolution between Centre and States.**
  - It is mandated to **hear appeals against orders passed by Appellate Authority or Revisional Authority.**

3.5.8. NATIONAL INVESTMENT AND INFRASTRUCTURE FUND (NIIF)

- NIIF has entered into a collaboration with Japan Bank for International Cooperation (JBIC) to unveil a $600 million India-Japan Fund.
  - The fund will have JBIC and Government of India as anchor investors.
- **About NIIF**
  - Anchored by the Government of India, it is a collaborative investment platform for international and Indian investors**.**
  - Three funds have been established by the Government under the NIIF platform: **Master Fund, Fund of Funds and Strategic Opportunities Fund.**
  - **The objective** of NIIF is to **invest largely in equity and equity-linked instruments.**

3.5.9. IRDAI ISSUED BIMA VAHAK GUIDELINES (BHG)

- The guidelines **aim to establish women centric distribution channel** that focuses on enhancing insurance inclusion and awareness in every village.
  - It also **aims to improve the accessibility and availability of insurance** in every nook and corner of the country.
- The scope of work of Bima Vahaks, besides creating awareness of insurance in villages, is likely to range from filling proposal forms, facilitating KYC process for customers, issuance of insurance policies, etc.
- It is a **part of IRDAI's strategy** to achieve its '**Insurance for All goa**l'.

3.5.10. CRITICAL AND STRATEGIC MINERALS

- Union Cabinet approved **Royalty Rates for Mining three Critical and Strategic Minerals- Lithium, Niobium, and Rare Earth Elements.**
- Critical minerals are **those minerals that are essential for economic development** and **national security,** judged **by two parameters:** economic importance, and supply risk.
- Such royalty rate approval **will enable Central Government** to **auction blocks for these critical minerals for the first time** in the country.
  - o **Mineral Royalty** is economic rent **due to the sovereign owner** (government) in **exchange for the right to** extract mineral substances.
  - o **Second Schedule** of **Mines and Minerals (Development and Regulation) Act (MMDRA), 1957** deals with the royalty rates of minerals.
- If not specified, the **royalty rate for minerals is 12% of the Average Sale Price (ASP).** Now, **approved royalty rates** for lithium, Niobium, and REE are 3%, 3 %, and 1 %, respectively.
- Presently, **India's mineral royalty rates are among the highest** in the world, thus impacting the competitiveness of sector and putting the economic burden on mining companies.
- **Significance**
  - o Aligning rates with global **practices will boost mining sector investment.**
  - o Lower royalty **rates would encourage future mineral exploration** in India.
  - o Assist in reducing import **dependency**, advancing self-reliance efforts, and minimizing supply chain disruptions.

Initiatives

- Amendment to MMRDA in 2023 delisted six minerals
- Khanij Bidesh India Ltd., a government JV, to secure critical minerals
- Auction of mining lease and composite license of 24 critical and strategic minerals
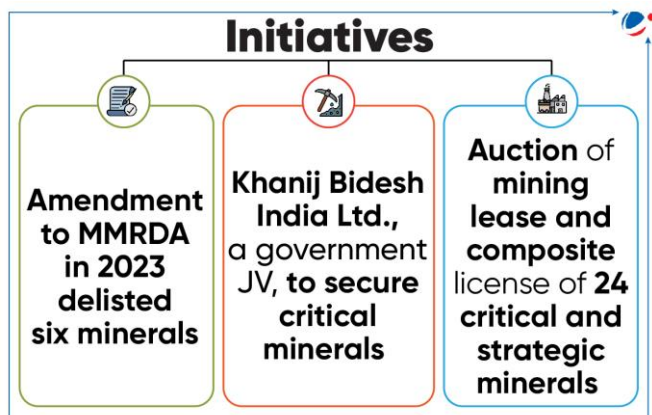
3.5.11. INDIA SMART CITIES AWARDS CONTEST (ISCAC) 2022

- ISAC is **organized under Smart Cities Mission by Ministry of Housing and Urban Affairs**.

- ISAC recognizes and **reward cities, projects and innovative ideas** that are **promoting sustainable development across 100 smart cities,** and stimulating inclusive, equitable, healthy and collaborative cities.
  - o ISAC has witnessed **three editions in 2018, 2019 and 2020.**
- **Top 3 Smart City:** Indore, Surat and Agra
- **Top 3 in State:** Madhya Pradesh, Tamil Nadu, Rajasthan
- **Top UT:** Chandigarh

3.5.12. GOA ROADMAP FOR TOURISM

- G20's Delhi Declaration underlined the significance of **'Goa Roadmap for Tourism' as a vehicle to achieve SDGs.**
  - o It identifies **five priority areas** in Tourism - **Green Tourism, Digitalization, Skills, Tourism MSMEs, and Destination Management.**
- Delhi Declaration also noted the launch of **'Travel for LiFE' initiative**, which nudges tourists and tourist businesses to take simple actions having tremendous significance for environment protection and climate action.
- Further, Ministry of Tourism and UN World Tourism Organization has launched **G20 Tourism and SDG Dashboard** which will serve as a **global repository**, showcasing **best practices and case studies** of sustainable tourism practices and policies from G20 nations.

3.5.13. SCHEME FOR REMISSION OF DUTIES AND TAXES ON EXPORTED PRODUCTS (RODTEP)

- **Ministry of Commerce & Industry** announced extension of RoDTEP support till **30th June 2024.**

- **About Scheme:**
  - o **Introduced** as a **duty remission scheme on exports.**
  - o It provides a **mechanism for reimbursement** of taxes, duties, and levies, **which are currently** not being refunded under any other mechanism.
  - o **Basis**: Globally **accepted principle** that taxes and duties should **not be exported,** and **taxes and levies borne on exported products should** be either exempted or remitted to exporters.
  - o It is **WTO-compatible** and is being implemented in an end-to-end IT environment.

3.5.14. AUTOMATIC 'STATUS HOLDER' CERTIFICATES

- Ministry of Commerce & Industry unveils system-based **automatic 'Status Holder' certificates** under **Foreign Trade Policy 2023.**

- **Now** certificate **will be provided by the IT system** based on **available** Directorate General of Commercial Intelligence and Statistics merchandise **export electronic data and other risk parameters.**
  - Status Holders are **business leaders who have excelled in international trade** and have successfully **contributed to the country's foreign trade.**

Privileges of certificate

- Credibility to the Indian **exporters** in the international markets.
- Priority custom clearances and **certain exemptions**

3.5.15. PROJECT MARIANA

- Project Mariana was **developed jointly by three BIS Innovation Hub centres** (the Swiss, Singapore and Eurosystem Hub Centres) together with **Bank of France, Monetary Authority of Singapore and Swiss National Bank.**
- The **project tested the cross-border trading and settlement of wholesale central bank digital currencies (wCBDCs)** between financial institutions, using new decentralised finance (DeFi) technology concepts on a public blockchain.
  - **Wholesale CBDC** refers to the settlement of interbank transfers and **related wholesale transactions in central bank reserves.**

3.5.16. GLOBAL INNOVATION INDEX (GII) 2023

- India maintains **40th Rank in The Global Innovation Index (GII)** 2023, released by **World Intellectual Property Organization (WIPO).**
- The GII is a **reliable tool for governments across the world to assess the innovation-led social and economic changes** in their respective countries.
  - It is co-published annually by **Cornell University, INSEAD Business School, and WIPO.**
  - **Criteria to measure innovation:** Covers institutions, human capital and research, infrastructure, credit, investment, linkages, creation, absorption and diffusion of knowledge, and creative outputs.
- **Key Findings:**
  - For a 13th consecutive year, **Switzerland ranks first in the GII.**
  - Strong technological progress and Technology adoption like electric vehicle and automation.

- **Status of Innovation in India:**
  - ✓ India **leads the lower middle-income group and is stable.**
  - ✓ India continues as record holders by being **innovation overperformers for a 13th consecutive year.**
  - ✓ The **ascent of India in terms of publication output (ranking 4th in 2022),** overtaking the UK (5th) and Germany (3rd).
  - ✓ India has **4 technology clusters among the top 100 clusters**: Bengaluru, Delhi, Chennai and Mumbai.

World International Property Organization

WIPO — WORLD INTELLECTUAL PROPERTY ORGANIZATION | HQ Geneva, Switzerland.

- **Genesis:** Specialized agency of the United Nations, established in 1967.
- **Objective:** Developing a balanced and accessible international Intellectual Property (IP) system.
- **Membership:** 193 members
  Is India a member ✓
- **Organizational structure:** The General Assembly and the Coordination Committee
- **Major Treaties:**
  - Paris Convention for the Protection of Industrial Property (1998)
  - Berne Convention for the Protection of Literary and Artistic Works (1928)
  - Patent Cooperation Treat (1998)
  India is a member of all the three treaties

3.5.17. MULTILATERAL DEVELOPMENT BANKS (MDBS)

- **G20 Expert Group** released a Report titled '**Bigger, Bolder, Better' Multilateral Development Banks (MDBs).**
- The report was presented **at the fourth G20 finance ministers** and **central bank governors** meeting in **Marrakech.**
- The independent expert group submitted **volume two** of a series of reports,
- This report **focuses on reforms of MDBs** on the theme of **Bigger, Bolder, Better MDBs.**

- o Earlier **submitted volume one,** focused on **tripling the annual lending levels of MDBs to $390 billion by 2030.**
- **MDBs** are a financial institution **established by multiple member countries** and governed by international law. e.g., **Bretton Wood institutions**, Asian Development Bank, etc.
- **Recommendations**
  - o **Better MDBs:**
    - ✓ Address **the largest external financing gaps** in low- and middle-income countries
    - ✓ Focus **on non-concessional lending** in climate action.
    - ✓ Scaling up **national transformations** by **integrating with regional programs.**
  - o **Bigger MDBs:**
    - ✓ Catalyze **private finance** by shifting **culture from risk** avoidance to informed risk-taking.
    - ✓ **More donor pledges** for the International Development Association.
    - ✓ **Establihd a Global Challenges Funding Mechanism (GCFM)** for **investors** seeking **financial return** while also s**upporting SDGs,**

- o **Bolder MDBs:**
  - ✓ Adopt **cascade principle**: refers to public sector banks refraining from financing what can be done by the private sector.
  - ✓ Empowering the **Multilateral Investment Guarantee Agency** (MIGA).

3.5.18. EMERGING-MARKET BOND INDEX (EMBI)

- **JPMorgan** to **add Indian government bonds** to its **benchmark EMBI** from June 2024.
- EMBI is a **benchmark index for measuring total return performance** of international **government and corporate bonds** that meet specific liquidity and structural requirements.
- **Inclusion in EMBI could potentially:**
  - o **Lower** the country's **sovereign borrowing costs**.
  - o Help **finance the current account deficit**.
  - o **Free up liquidity for domestic financiers** to deploy in more productive assets.
  - o **Increase demand for the rupee** and support its value.

4. SECURITY

4.1. SEPARATISM

Why in the news?

Recently, the External Affairs Minister of India suggested focusing on the nexus between separatism and organized crime.

What is separatism?

- In simple terms it is the demand for a separate statehood. It may take the form of a region demanding the creation of a separate independent state or re-negotiation of the relationship with the State.
- There are demands in various regions for reorganization of relations between different regions, which may take the following forms:

Insurgency	- It is an **organized armed resistance against the state** or constituted authority with the aim of overthrowing the regime. - Unlike terrorism, **insurgency movements generally involve or require material or moral support** from some section of the population in order to justify their existence and also to erode the legitimacy of the government. - Example: ideological or Maoist insurgency in central and eastern India.
Movement for separate statehood: These movements generally assume three forms:	
Statehood movement	Seeking a **separate state consisting of a region** from one or more existing states.
Autonomy movement	- These are **collective mobilization of people in a region or across regions** with the aim of getting autonomy to their region for managing their economic, social cultural, and political affairs. - For example, Bodoland and Karbis and Dimasa Kacharis accepted autonomy within the state of Assam.
Secessionist movement	- It is also known as a cessation in which one region in a country wants to **secede and become a sovereign state**. - For example, the demand for greater Nagalim.

Factors responsible for the rise of separatist tendencies

- **Regional imbalance in economic development**: E.g., regional aspirations from Northeast India were mainly because the

Concern regarding the secessionist movement

International and financial support: international community support in the form of ideological and financial support for example support for the Nagalim movement

Link with organized crime: The secessionist movement often involved organized crime groups like the drug trade to finance themselves as seen in Kashmir.

Effect on international relations: It can become a hurdle in international diplomacy, as seen in issues such as Canada.

Instability in the region: These movements often involve use the of violence against the state and the people of the region.

region suffered neglect in developmental terms after independence.
- **Cultural identity:** Demand for Nagalim is based on the preservation of their different culture and social practices.
- **Historical reasons**: E.g., after independence one of the reasons for the movement for secession in Mizoram was that some Mizos believed that they were never a part of British India and therefore did not belong to the Indian union.
- **Lack of trust in the state:** Loss of public confidence in the capacity of the state to protect their life and property. For example, demand of separate state in West African states of Mali, Guinea, and Burkina Faso.
- **Foreign policy:** Some people of Ukraine believe that it should integrate into the EU and NATO and others believe in close cooperation with Russia.
- **International and financial support:** Many secessionist movements have support from the international community in the form of ideological and financial support.
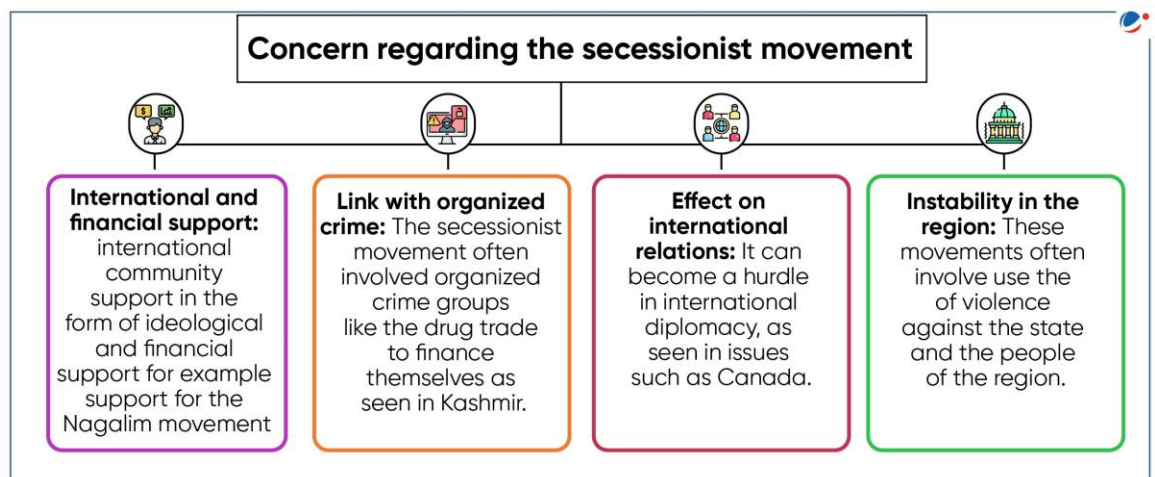
India's approach to separatist movements and other regional aspirations

- **Democratic negotiations:** India has responded to regional aspirations through democratic negotiations rather than through suppression for example signing the Mizo accord to bring peace in Mizoram.
- **Power sharing:** Groups and parties from the region are given a share in power so that they have a say in their development.
- **Backward areas development:** Special attention and planning to ensure sustainable development of areas with inadequate infrastructure, and limited access to resources by programs like the Aspirational District Programme.
- **Flexibility of the Constitution:** there are special provisions for some states and regions to have autonomy.
  - The Sixth Schedule of the Constitution allows different tribes complete autonomy of preserving their practices and customary laws.
- **Use of force:** Force is used against groups such as the **United Liberation Front of** Assam for maintaining peace in the region.

4.2. INDIA'S ANTI-TERRORISM APPROACH

Why in the news?

The union Home minister while addressing the **Anti-Terror Conference organised by the National Investigation Agency (NIA)** highlighted the need to not only combat terrorism but also dismantle its entire ecosystem and suggested measures to combat terrorism.

India's approach to tackling terrorism

- **Legislative framework:** The Unlawful Activities (Prevention) Act of 1967 and the National Security Act of 1980 are the primary laws to combat terrorism.
- **Dedicated Law enforcement agency:** The National Investigation Agency (NIA) Act as India's primary counterterrorism law enforcement organization.
  - It is supported by other agencies like Research and Analysis Wing (RAW), Intelligence Bureau (IB), State police services etc.
- **Countering the Financing of Terrorism:** India is a member of the Financial Action Task Force, the Asia/Pacific Group on Money Laundering, and the Eurasian Group.
- **Countering Violent Extremism (CVE):** The Ministry of Home Affairs is the lead agency for CVE.
- **Win the minds and hearts of people:** To reduce the chances of radicalization the government has been taking developmental initiatives like the Civic Action Programme (supporting civil action by security forces), and the Udaan scheme (capacity building of the youth in J&K).
- **International and Regional Cooperation:** India has leadership roles in many regional and international like the Global Counterterrorism Forum, where it has promoted multilateral counter-terrorism cooperation.
  - In 1996, India took the initiative to pilot the draft Comprehensive Convention on International Terrorism with the objective of providing a comprehensive legal framework to combating terrorism.

The role of the National Investigation Agency (NIA) in combating terrorism has been discussed in more detail in the subsequent Article.

Factors highlighting the need to change the approach toward terrorism

- **Lack of hierarchical structure in recent terrorist acts:** Terrorists are relying on loose affiliations with like-minded groups from a variety of countries and there is also the rise of lone wolf attacks.
- **Changing nature of weapons:** Some terrorist groups now acquiring the capability to use chemical, biological, radiological, or nuclear (CBRN) materials.
- **Use of technology:** Terrorists are making extensive use of new information technologies, along with a coordinated cyber-attack exponentially increasing the risk of threat.

🏛 **DATA BANK**

» India is ranked 13th in the latest Global Terrorism Index (2023), and one of the worst-affected countries by terrorism activity.

- **New methods of Terrorism Financing:** Dedicated crowdfunding platforms or websites are being for terror financing.
  - Given the volume and variety of activity, it is difficult to detect illicit activity.
- **Lack of definition at a global level:** There is a discrepancy in defining terrorism as a result of which a universally accepted definition of "terrorism" is lacking.
- **Nexus with other organised crimes:** Interlinkage between Counterfeit goods production and trade, flora and fauna crimes, drug trafficking etc. and terrorist activities raise new concerns for India.
  - According to a report by FICCI, there is a good correlation between drug trafficking and terrorism.
- **Lack of interagency cooperation**: **Different Anti-Terrorist Agencies (ATAs)** are working at the center and the state level with limited cooperation and data interchange.
- **Delays and complexities in the legal and judicial system**.

Way forward

- **Key measures suggested in the conference**
  - **Model anti-terrorism structure** should be established under the NIA for all states.
  - **All ATAs should make multidimensional and artificial intelligence-based use of databases** in the fight against terrorism more successful.
    - ✓ India has prepared many database verticals such as Inter-Operable Criminal Justice System (ICJS), National Automated Fingerprint Identification System (NAFIS), National Integrated Database on Arrested Narco-Offenders, National Database of Human Trafficking Offenders (NDHTO) etc. which can be used for terrorism-related investigations.
  - **All State ATAs should have a uniform hierarchy, and standard operating procedure** to ensure better cooperation between center and state agencies.
  - **NIA, Anti-Terrorism Squad, and Special Task Force should think out of the box and take innovative measures** to counter terrorism.
    - ✓ E.g., NIA should help the Bureau of Police Research and Development BPR&D in studying the Modus Operandi used by terrorists to trap young boys.
  - **Collaboration from the global level to the grassroots,** involving various states within the country, as also the international cooperation.
  - **Creating a Common Training Module** so that uniformity can be brought in the methodology of combating terrorism.
- **Other measures**:
  - **Focus on linkages of terrorism with other organised crimes**: E.g., in **Operation Dhvast** case NIA in coordination with Punjab and Haryana Police busted a Terrorist-Gangster-Drugs-Arms Trafficking nexus.
  - **Cooperation with neighbouring countries:** The Parliamentary Standing Committee on External Affairs has recommended to establish a common platform to counter-terror under the **Neighbourhood First policy**.
  - **Strengthening the safety of the digital ecosystem:** The growing importance of the digital ecosystem or cyberspace warrants dedicated efforts to make it more secure and robust.
    - ✓ To enable the same, Australia's 'essential 8' features for cybersecurity could be emulated.
  - **Strengthening our democracy from within:** Strengthening the democratic institutions enables the government to gain the trust and cooperation of its citizens.

4.2.1. NATIONAL INVESTIGATION AGENCY (NIA)

About National Investigation Agency (NIA)

- NIA was created after **the 2008 Mumbai terror attacks with the enactment** of the National Investigation Agency Act 2008.
- **Aim:** To set **the standards of excellence in counter-terrorism** and other national security-related investigations at the national level with an oriented workforce.
- It works under a written proclamation from the **Ministry of Home Affairs**.
- It is empowered to deal with terror-related **crimes across states without special permission from the states.**

- National Investigation Agency (Amendment) Act, 2019 has given it **the power to investigate scheduled offences committed outside India.**

Role of NIA in anti-terrorism efforts

- **Cooperation with States:** It assists all States and other investigating agencies in investigation of terrorist cases.
- **Ensuring effective and speedy trial**: In the year 2022 the **overall conviction rate was about 94%.**
- **Data collection:** NIA has been given the task of creating a national database in seven areas - narcotics, hawala transactions, arms smuggling, counterfeit currencies, bomb blasts, terror funding and terrorism.
- **In-depth professional investigation:** Investigates crimes where it is difficult to gather evidence.
- **Alert and responsive measures:** E.g., NIA has registered a number of cases against the over ground workers in Jammu and Kashmir and done well in destroying their sleeper cells**.**

Related news: FICCI released report 'Hidden Streams: Linkages between Illicit Markets, Financial Flows, Organized Crime and Terrorism'
- The report investigates the hidden linkages in 122 countries and decodes the relationship between organised crime actors and the illegal economy, including trade-based money laundering, counterfeiting, arms and drug trafficking and terrorism and crime.
- **Key highlights of the report**
  o **The United Nations estimates** that the global amount of money laundered in a year is estimated to range from 2 to 5% of the global GDP.
- **India related findings**
  o **The total amount of money laundering in India** as per the UN Office on Drugs and Crime estimates pegged at $159 billion.
  o **The Global Organised Crime Index (2021)** shows a low prevalence of organised crime actors in India at 4.3 on a scale of 1–10, compared to the average benchmark of 5.2 for 122 countries.
  o **The Directorate of Revenue Intelligence in India identified** 437 instances of duty evasion in 2021-2022, a 40 percent increase from the previous year.
  o **India's informal economy** increases the likelihood of counterfeit goods production and trade, raising concerns about terrorist activities.
  o In 2021, the economic **impact of violence in India was estimated at US $1.17 trillion**, which accounts for approximately 6% of the country's GDP in terms of PPP.
- **Recommendations:** Adopting 6 Cs as a policy playbook to negate the threats-
  o Cognisance of Terrorism and Organised Crime Under Regulatory Framework
  o Continuous and Critical Evaluation of Illicit Financial Flows
  o Central Nodal Agency for Greater Coordination
  o Creating Awareness and Changing Consumer Preferences
  o Combatting Trade Based Money Laundering
  o Cooperation and Coordination at International Level

4.3. NEWS IN SHORTS

4.3.1. NEW INDIAN AIR FORCE (IAF) ENSIGN

- It was unveiled as IAF marked its **91st anniversary.**
- New ensign includes the **Air Force Crest in the top right corner**.
  o IAF Crest has **national symbol**, the **Ashoka lion on the top** with the words "**Satyamev Jayate"** in Devanagari below it.
  o Below the Ashoka lion is a **Himalayan eagle with its wings spread**, denoting the **fighting qualities of the IAF.**
  o A **ring in light blue colour encircles Himalayan eagle** with the words "Bhartiya Vayu Sena"

o IAF's motto, "**Touching the sky with glory**," is inspired by the **Bhagavad Gita.**

New Indian Air Force (IAF) Ensign
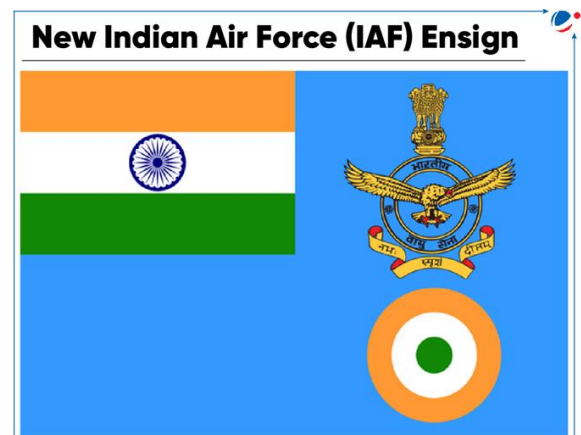
4.3.2. SONOBUOYS

- Indian Navy plans to equip MQ-9B Sea Guardian Drones with Sonobuoys.
- Sonobuoy is a small device used for **underwater acoustic surveillance**.
  - It **contains hydrophones that detect underwater sounds**, especially those made by submarines.
  - These devices are **deployed from aircraft or ships** and transmit real-time acoustic data, **helping pin-point potential submarine threats**.

4.3.3. SIMBEX EXERCISE

- It is an annual bilateral **naval exercise** conducted by **Indian Navy** and **Republic of Singapore Navy**.

5. ENVIRONMENT

5.1. GLOBAL INFRASTRUCTURE RESILIENCE

Why in the news?

Coalition for Disaster Resilient Infrastructure (CDRI) released the first biennial report on global infrastructure titled **"Global Infrastructure Resilience: Capturing the Resilience Dividend".**

What is Infrastructure Resilience?

- **Infrastructure:** Infrastructure is defined by the UN as "the physical structures, facilities, networks and other assets which provide services that are essential to the social and economic functioning of a community or society".
- **Resilience:** Resilience is the **ability** to **prevent, resist, absorb, adapt, respond and recover positively, efficiently and effectively** when faced with a **wide range of risks** while maintaining an **acceptable level of functioning**.
- **Dimensions:**
  - **Resilient infrastructure:** Infrastructure that can absorb, respond to, and recover from hazard events and shocks.
  - **Infrastructure for resilience:** Infrastructure that supports broader social and economic or systemic resilience without generating or accumulating new systemic risk.
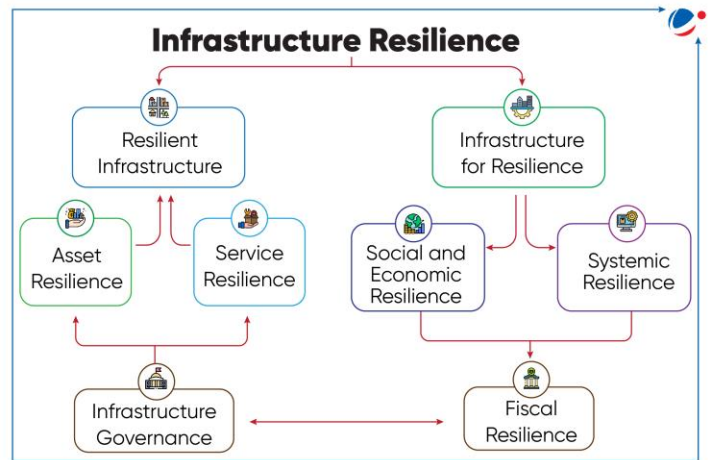
Global Infrastructure Risks and the need for Infrastructure resilience

- **Obsolescence of infrastructure:** Many countries, particularly those that industrialized prior to World War II, need to replace obsolete infrastructure assets.
- **Weak infrastructure governance:** Socio-economic development in lower income countries is constrained by **large infrastructure deficits** being aggravated by weak infrastructure governance.
  - Deficient planning and design, inadequate standards, ineffective regulation and compliance and low levels of investment characterize weak infrastructure governance.
- **Systemic risks:** Systemic risks such as climate change and biodiversity loss, can be considered existential, as they threaten the habitability of the planet.
  - International agreements for climate change mitigation mandate a **rapid transition** from carbon-locked-in infrastructure to low, zero, or negative emission infrastructure.
- **Developmental benefits:** Investing to strengthen infrastructure resilience could set countries on a development trajectory characterized by quality and dependable essential services, reduced damage to infrastructure assets, lowered systemic risk, and sustainable development goals.
- **Disproportionate impact:** The resources required in Low- and Middle-Income Countries (LMICs) for infrastructure resilience are at least one order of magnitude greater than current investment.
- **Infrastructure finance:** Recent estimates of the annual investment required to address infrastructure deficits, achieve the SDGs, and achieve net zero by 2050, amount **to $9.2 trillion**.
  - In the coming years, it is expected that **just four countries (China, India, Japan, and USA) will account for 50%** of total global infrastructure investment.

Nature-based Infrastructure Solutions (NbIS)

NbIS refer to practices that **concurrently protect and provide infrastructure, adapt to climate change, promote environmental integrity and biodiversity,** and provide social well-being. If widely adopted, they can **play a crucial role in strengthening resilience**.

- **Safeguarding traditional infrastructure:** NbIS can be used to complement, substitute or safeguard traditional 'grey' infrastructure, thus representing a paradigm shift towards building with nature.
- **Low-cost:** NbIS cost, on average, only 51% of grey infrastructure projects.
- **Reducing carbon emissions:** NbIS also reduce carbon emissions across infrastructure

Functional Categories of NbIS

Deliver Infrastructure Services directly	• Can reduce or avoid need for engineered infrastructure assets. • NbIS such as wetlands, roads and ponds can filter pollutants, assimilate wastes and provide water treatment facilities.
Enhance engineered infrastructure function	• Increasing efficiency, reduces need for maintenance. • Riparian vegetation can stabilize soils, and reduce sedimentation, thus reducing need for dredging.
Protect engineered assets	• Protection from climate impacts. • Agroforestry can help in reducing occurence of shallow, rapidly moving landslides.
Benefit the workforce	• Boost health of infrastructure worker and improve productivity.
Deliver multiple additional social, environmental and economic benefits	• Social benefits advancing global targets such as SDGs and Paris agreement. • Promotion of opportunities for women's involvement in decision making.

lifecycles, which will enable avoiding land use change and extending infrastructure lifespans.
- **Socio-economic outcomes:** NbIS increases opportunities for women's involvement in decision-making and governance, particularly in rural areas.
  - It has the potential to create an **estimated 59 million jobs by 2030**.
  - Widespread adoption of NbIS would influence the **achievement of SDGs**.

Challenges for integrating NbIS

- **Knowledge requirement:** NbIS require **new interdisciplinary knowledge and skill sets** that traditional engineers and architects do not necessarily possess.
- **Lack of research:** Rarely can one find research that quantifies ecosystem services, integrates nature-based values into modelling and cost-benefit accounting, and facilitates the design of NbIS.
- **Lack of risk assessment:** Without a credible and robust risk identification process, it is impossible to identify the resilience dividends that can accrue through adopting NbIS.
- **Politically unattractive:** NbIS may sometimes be unattractive politically precisely because it reduces opportunities for privatized profits.
- **Gestation period:** NbIS is often a **slow solution** in a context where many infrastructure requirements need quick action.

Integrating NbIS

- **Research:** Carefully reviewed, curated, up-to-date, multi-lingual and publicly available research, libraries, design standards, and case studies are essential.
  - All countries, particularly LMICs, will need **national centres of excellence** in NbIS.
- **Outcome linked NbIS:** Linking NbIS monitoring to the achievement of the SDG and the global common goals may facilitate its greater uptake.
- **Regulation:** Effective legislation to protect and enhance ecosystems is necessary to encourage greater investment in NbIS.
- **Rating systems:** Rating tools can serve as a market signal for resilience or sustainability and provide verified examples of good practice.

o   For example, **GRIHA** (Green Rating for Integrated Habitat Assessment) in India.
*   **Global standards:** Prescriptive global standards for NbIS could provide a pathway for greater project financing.
*   **Financing incentives:** Integrating NbIS into existing pipelines of grey infrastructure delivery systems can be a way to achieve scale, reduce loss and damage to infrastructure assets, and prevent loss of biodiversity.

Conclusion

The long design lifecycles of many infrastructure assets will be key to making investments resilient and configure development trajectories in the decades to come. At the same time, strengthening infrastructure resilience is critical to address existential risks associated with catastrophic climate change and biodiversity loss.

5.2. GLACIAL LAKE OUTBURST FLOOD (GLOF)

Why in the News?

Sikkim witnessed Glacial Lake Outburst Flood (GLOF) due to bursting of the southern bank of the **South Lhonak Lake**.

Do you know ❓
➤ **Lachen chu (river)** and **Lachung chu** meet at Chungthang to flow down as **Teesta** River.
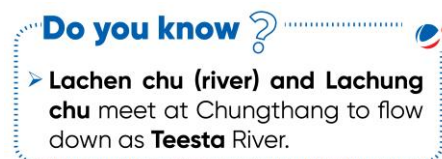
Causes for Sikkim flash floods

The Sikkim disaster was primarily triggered by a **catastrophic combination of factors**.

*   **Glacier melting:** Sikkim's **South Lhonak Lake**, situated in a high-altitude glacierised region, experienced **accelerated melting** due to climate change. This led to the lake's expansion.
*   **GLOF event:** The pressure and volume reached a **critical point**, causing the lake to breach its boundaries. The resulting GLOF, **combined with excessive rainfall due to cloud burst**, triggered the devastating flash floods.
    o   A GLOF is a sudden and catastrophic event where **a glacial lake**, often dammed by a glacier or moraine, **bursts open**, releasing an immense volume of water, rocks, and debris downstream.
*   **Chungthang dam:** The floodwaters reached the **Teesta-III hydel project at Chungthang** via **the Lachen River** and were worsened by **release of water from Chungthang Dam**.

About Glacial Lakes and GLOFs

*   **Glacial lakes are large bodies of water** that sit in front of, on top of, or beneath a melting glacier.
    o   As they grow larger in size, they become more dangerous because glacial lakes are mostly dammed by unstable ice or sediment composed of loose rock and debris.
    o   Due to global warming glaciers are retreating and glacier lakes are expanding in the size and numbers.
*   **Glacial lake outburst flood (GLOF)** is a sudden release of a significant amount of water retained in a glacial lake, irrespective of the cause.
*   **GLOF vulnerability in India**
    o   As per recent ICIMOD report (Hindu Kush Himalaya (HI-WISE) assessment report) - in the event of global warming between 1.5°C to 2°C, by 2100, **glaciers are set to lose 30–50% of their volume** compared with 2015.
    o   **More than nine million people in High Mountain Asia (HMA)** — surrounded by mountain ranges of Tien Shan, Pamir, Hindu Kush, Karakoram, Himalaya and Qilian Shan — are **vulnerable to glacial lake outbursts**.
    o   India has witnessed at least **three highly devastating GLOF events** in the Ganga and Brahmaputra basins over the last decade —**Kedarnath (2013), Chamoli (2021) and Sikkim (2023).**

Effects of GLOFs

👊 Disastrous due to **unanticipated character,** peak discharge, fast and violent movement

✊ **Catastrophic impact on human lives,** livelihoods, basic services (drinking water, sanitation, health and education)

🏢 **Destruction of infrastructure** such as habitations, roads, energy projects, sewage networks etc.

🥬 **Destruction of ecological systems** and agri-food systems

🏘 **Can result in other disasters** such as landslides

Causes for Flash Floods

- **Increased flow:** Increased flow in streams, short and seasonal rivers, tributaries and the main riverstem after the initiation of high intensity rainfall is largely the genesis of flash floods.
- **Cloudburst:** Cloudburst refers to an extreme amount of rain that occurs in a short span of time. Predicting cloud bursts is extremely difficult.
- **Rainstorms:** According to IMD, rainstorms are characterised by either substantial, extreme or heavy rainfall over a particular area for a particular period.
- **Human induced interventions:** Continuous push towards centralized development and increasing tourism economy is leading to haphazard construction in vulnerable regions. These include:
    - o **Commissioning of Hydropower projects** in vulnerable regions prone to seismicity, landslides, and other disasters.
    - o **Unsustainable and unplanned infrastructure** in ecologically fragile zones.
    - o **Climate change and** increased warming of the planet due to anthropogenic emissions of greenhouse gases and pollutants.

Flood mitigation measures

- **National Disaster Management Authority (NDMA):** It issues guidelines for management of floods and specifies roles of various central and state agencies.
    - o **NDMA issued guidelines on management of GLOFs** in 2020, urban flooding in 2010 and flood management in 2008. (refer infographic)
- **Structural Measures:** Creation of reservoir, depressions, embankments, channelisation of rivers, improvement of channel and drainage, watershed management etc.
- **Floodplain zoning**: It aims at demarcating zones likely to be affected by floods of different magnitudes or frequencies, and specify the types of permissible developments in these zones.
- **Early Warning System:** NDMA has planned to install early warning systems for real-time alerts at most of 56 at-risk glacial lakes in India.
- **Guidelines for Hydro projects:** Central Electricity Authority (CEA) has issued guidelines for **slope stability**—inclines that can withstand movement—in hydropower projects.

Measures that can be taken

- **Risk assessment:** Comprehensive risk assessment of vulnerable regions should inform disaster risk-reduction strategies.
- **Monitoring and data collection:** Intense monitoring and forecasting of meteorological events near vulnerable glacier lakes, and rivers is an urgent necessity.
- **Climate mitigation:** Climate mitigation efforts and adaptive measures need to be taken to protect communities and infrastructure from the escalating risks.
- **Use of technology:** Vulnerable zones can be identified using Remote Sensing and Geographic Information System (GIS), and drone and Light Detection and Ranging (LiDAR) technology.
- **Collective resilience:** Institutionalising social, cultural and localized knowledge and practices for developing local warning systems and to build collective resilience.
- **Green-grey infrastructure:** Retention basins, wetlands, vegetation shields, sediment traps, flood walls, diversion channels etc. can improve the geo-morphology of the mountain rivers.
    - o Also, Infrastructure projects in mountains — dams, bridges and highways — must be subjected **to stringent quality control measures**.

NDMA GUIDELINES

HAZARD AND RISK MAPPING
Provide the basis for prioritizing, designing, and implementing risk management strategies.

MONITORING, RISK REDUCTION AND MITIGATION MEASURES
Early Warning Systems (EWS) as the most effective approach to disaster risk reduction.

AWARENESS AND PREPAREDNESS
On short, mid, and longer time.

CAPACITY DEVELOPMENT
Should focus both on training and strengthening academic education.

DISASTER RESPONSE
Well-established disaster response procedures at national, state district, and community levels.

RESEARCH AND DEVELOPMENT
Repeated monitoring using advanced space-borne and terrestrial technology for regular re-assessment of lakes across the entire Himalayan region.

- **EPIC Response Framework:** World Bank has put forward a new perspective to better manage flood and drought risks – the **EPIC Response Framework (Enable, Plan, Invest, Control).**

5.3. NEWS IN SHORTS

5.3.1. CORAL REEF BREAKTHROUGH

- Coral Reef Breakthrough was launched by **International Coral Reef Initiative (ICRI)** in **partnership with Global Fund for Coral Reefs** and **High-Level Climate Champions**.
  - It aims to **prevent extinction of at least 125,000 km² of shallow-water tropical coral reefs**.
- **Action Plans to achieve target**
  - **Mitigate local drivers of loss** including land-based sources of pollution, destructive coastal development, and overfishing.
  - **Bolster resilience based coral reef conservation** efforts by aligning with and surpassing global coastal protection targets including **30by30**.
    - ✓ **Target 3 of Kunming-Montreal Global Biodiversity Framework** i.e. **at least 30%** of terrestrial and inland water areas, and marine and coastal areas should be **conserved by 2030**.
  - **Assist development and implementation of innovative solutions** at scale and climate smart designs that support coral to impact **30% of degraded reefs by 2030**.
  - **Secure investments of at least USD 12 billion by 2030** from public and private sources to conserve and restore coral reef.
- Coral reefs are made up of colonies of hundreds to thousands of tiny individual corals, called **polyps**.
  - These marine **invertebrate animals** have **hard exoskeletons made of calcium carbonate**.
  - In India, Coral reefs are present in **Gulf of Kutch, Gulf of Mannar, Andaman & Nicobar, and Lakshadweep Islands.**

International Coral Reef Initiative (ICRI)

Genesis: Established in 1994 by Australia, France, Japan, Jamaica, Philippines, Sweden, UK, and USA.

About: Global partnership to preserve coral reefs and related ecosystems around world.

Members: 101 members. Is India a Member ✓

Other Key Information: 45 countries are custodians of 75% of world's coral reefs.

Key Initiatives : Coral Reef Breakthrough to secure the future of at least 125,000 km2 of shallow-water tropical coral reefs

5.3.2. SUSTAINABLE FINANCE

- A report on **Sustainable finance** was released by **UNESCAP** titled- "Sustainable Finance: Bridging the Gap in Asia and the Pacific".
- **Sustainable finance** refers to the **financing of sustainable activities** as well as **finance that is sustainably managed.**
- **Key findings**
  - There is **sufficient capital and liquidity** to **close** the global financing **gap in sustainable finance**.
  - Asia-Pacific region is **not on track to meet the SDGs by 2030.**
  - **Only 17** of the 51 Asia-Pacific countries party to the UNFCCC have **assessed and reported their financial needs** to meet their **Nationally Determined Contributions (NDCs).**
  - **Average economic losses** resulting from disasters and other natural hazards in the region may **increase to $1.1 trillion- $1.4 trillion**.
  - **Climate change** under a high emissions scenario could impose **35% GDP losses in India by 2100.**
- **Recommendations:** Action for **policymakers, regulators and private finance** includes:
  - Commitments to **net zero pledges for 2050** with **credible transition pathways** including 2030 goals.
  - **Policy coherence** and **capacities developed** across key government ministries
  - **Reducing sectoral and regional mismatches** between capital and investment needs.
  - **Local-currency financing of energy transition projects** as well as **green technologies** and other net-zero investments.
  - **Concessional financing and risk-sharing** by multilateral development banks, bilateral development financial institutions, etc.

UNITED NATION ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC (ESCAP)

HQ Bangkok (Thailand)

Genesis: Established as **Economic Commission for Asia and the Far East (ECAFE) in 1947 in Shanghai and became ESCAP in 1974**

About: Intergovernmental platform in the **Asia-Pacific region.**
- One of the **five regional commissions** of the UN (other belongs to **Africa, Europe, Western Asia, Latin America** and **the Caribbean**).

Members: 53 member States and 9 associate members. *(Member)*

Objective: Promoting cooperation among members in pursuit of **solutions to sustainable development challenges.**

Reports: SDG Progress Assessment Report, Asia-Pacific Disaster Report.

5.3.3. NET ZERO ROADMAP

- A Report on **Net Zero Roadmap** was **released by International Energy Agency (IEA)** titled '**A Global Pathway to keep the 1.5 °C Goal in reach.**
- **Key Highlights of the report**:
  o Limiting global warming to 1.5 °C is becoming harder but a narrow window remains because **clean energy infrastructure has grown around the world**.
  o **Clean energy** like solar power, electric car are among technologies which together deliver 1/3rd of the emissions reductions between today and 2030 in the pathway.
- **Suggestions:** Tripling Renewables capacity by the end of the decade; using Carbon capture, utilisation and Storages, etc.

5.3.4. CLIMATE IMPACT, LOSS & DAMAGE IN SUNDARBANS

- Experts from India and Bangladesh believe that climate change triggered **loss and damage in the Sundarbans**, should be seen as a **"global common".**
  o This is because the region gets **significantly affected despite contributing minimally to carbon emissions.**
- **Global commons** are areas and their potential economic resources that **lie beyond national jurisdiction** (high sea, atmosphere, Antarctica and outer space) and to which **all nations have access**.
  o **Conventions and treaties to govern global commons include** United Nations Convention on Law of the Sea **(UNCLOS) 1982**, Antarctic Treaty System, Treaty on Principles governing Activities of States in Exploration and Use of Outer etc.
- Sundarbans is a **cluster of low-lying islands in Bay of Bengal**, spread across India (40%) and Bangladesh (60%).
  o It lies on the delta of the **Ganges, Brahmaputra and Meghna rivers**. It is the **largest area of mangrove forest** in the world**.
  o It is designated as a **Cultural UNESCO World Heritage Site** and accorded the **status of 'Wetland of International Importance'** under Ramsar Convention.
  o **Fauna**: Estuarine crocodile, royal Bengal tiger, Water monitor lizard, Gangetic dolphin, Olive ridley turtle etc.
  o **Threats:** Vulnerable to floods, earthquakes, cyclones, sea-level rise and coastline erosion.

Know the term

> **Loss and Damage** is a term used to **describe how climate change is already causing serious** and, irrevocable impacts around the world - particularly in vulnerable communities.

5.3.5. CUTTING METHANE FROM FOSSIL FUELS

- A Report titled '**Imperative of Cutting Methane from Fossil Fuels'** was prepared by **International Energy Agency (IEA)** with contributions from **UNEP** and **UNEP-Convened Climate and Clean Air Coalition (CCAC).**
  o CCAC, founded in 2012, is the **only international body working to reduce short-lived climate pollutants** – **methane, black carbon,**

hydrofluorocarbons– that drive both climate change and air pollution.

- **Key findings**
  - Targeted **methane mitigation from fossil fuels** could **avoid 0.1°C warming by 2050**.
  - **Without targeted action** on methane, increase in global average surface temperature will likely **exceed 1.6 °C by 2050.**
- **Methane mitigation by 2050 can prevent**
  - **Nearly 1 million premature deaths** due to ozone exposure.
  - **90 million tonnes of crop losses** (wheat, rice, soy and maize) due to ozone and climate changes.
  - About **85 billion hours of lost labour** due to heat exposure.
- **Methane (CH4)** is a **greenhouse gas** and **responsible for 30 percent of global warming**.
  - Around **580 million tonnes of methane** is emitted **every year** globally, 60 percent of which comes from **human activities** (landfills, agricultural practices, wastewater treatment etc).
  - It is the **second largest contributor** to climate change after carbon dioxide.

Initiatives

Global Methane Pledge (launched at COP26 in 2021)

Gobar (Galvanizing Organic Bio-Agro Resources) – Dhan scheme, an umbrella initiative **of Ministry of Jal Shakti**

To cut methane emissions by at least 30% by 2030 from 2020 levels.

It supports conversion of waste into resources and reduction of methane emissions.
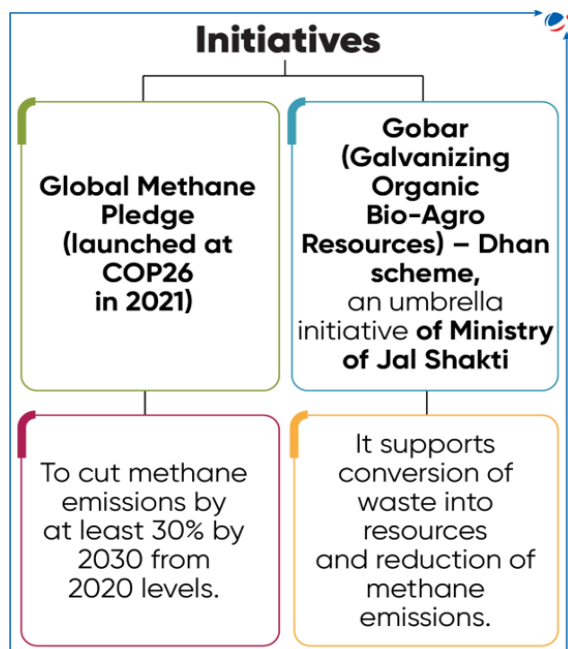
5.3.6. DECARBONISATION OF THE CEMENT INDUSTRY

- **In the cement industry, Pyro-processing** (limestone and clay, are heated in a kiln at more than 1,400°C) and **calcination** (calcium carbonate ($CaCO_3$) is heated) are major processes which cause Carbon emissions.
- **Need of decarbonisation in the cement Industry**
  - It is the **second largest industrial emitter** in the world (after iron and steel).
  - Contributes about **7 %** of CO_2 emissions globally.

- Important to achieve commitments of **"net zero" emissions by 2050** (or by 2070, as pledged by India).
- **Challenges in India**
  - India is one of the **fastest urbanising countries and is witnessing a housing and infrastructure boom**.
  - **Lack of availability of alternatives for Pyro-processing** and **calcination**
  - **Limited initiatives and economic measures** promote sectoral energy efficiency enhancements
- **Measures**
  - Increase the share of **blended cement** (minimising the use of limestone by using another substitute).
  - Increase the share of **recycled materials in production.**
  - More utilization of alternative fuels like **refuse-derived fuel (RDF)**, **industrial waste** and **biomass**.
  - Using innovative technologies like **carbon capture, utilisation and storage (CCUS).**
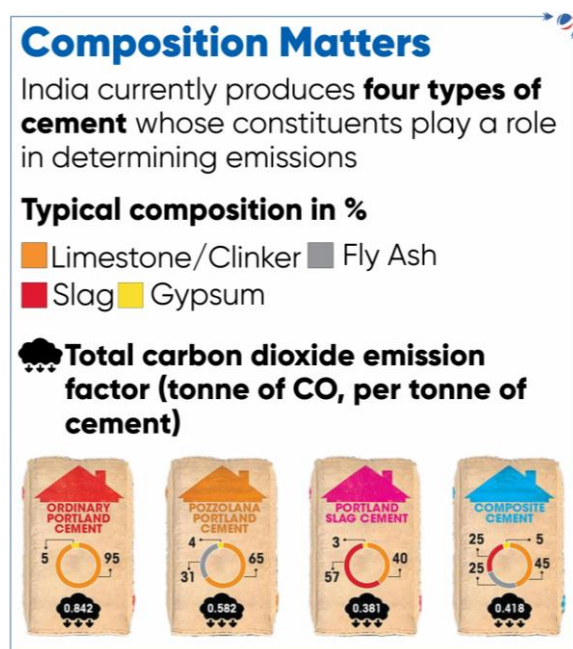
5.3.7. INDIA RUNNING OUT OF PHOSPHORUS

- **Phosphorus** is one of the **macronutrients** essential for plant growth which is **required by plants for:**
  - Photosynthesis process
  - Energy transfer and nutrient movement within the plant
  - Strong root development
  - Transfer of genetic characteristics
- **India is the world's largest importer of Phosphorus**, most of it from the cadmium-laden deposits of West Africa.

- o Phosphate rocks are majorly produced **only from two States** in India, namely **Rajasthan and Madhya Pradesh**.
- o Some **deposits** are also present in the central part of peninsular **India, Lalitpur (Uttar Pradesh), Mussoorie syncline, and Cuddapah basin (Andhra Pradesh).**
- **Concerns with Phosphorus availability:**
  - o At most places, Phosphorus coexists with **Cadmium**, a heavy metal whose removal is expensive.
  - o **Handful of countries** such as Morocco, Western Sahara, China, Algeria etc **control most of the world's reserves of phosphorus** which is a major geopolitical concern.
- **Harmful effects of phosphorus:**
  - o Much of phosphorus is **lost directly to water bodies** as agricultural run-off and through sewage which leads to **growth of toxic algal blooms.**
  - o **Cadmium-laden fertilizers** are often applied to the soil, absorbed by crops, and consumed, bioaccumulating in human bodies **accelerating heart disease**.

Ways to reduce phosphorus paucity

- Reduce use of chemical fertilizers through **precision agriculture.**
- Adoption of low input **agro-ecological approaches.**
- **Mining urban sewage** to produce phosphorus.
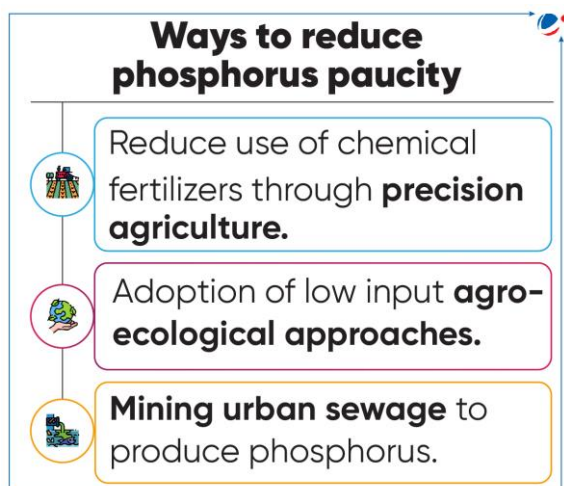
5.3.8. CONOCARPUS TREES

- It is **an invasive mangrove species,** recently **banned by Gujarat** government. Earlier, **Telangana government had also banned** it.
- Conocarpus is a **genus of two species of flowering plants** in family of Combretaceae, **native to tropical regions** of the world.
  - o It is widely **used in public spaces** for its ornamental looks.
  - o Flowering in this tree takes place in Winter and the particles spreading from it **causes cold, coughing, asthma, allergy etc. harms to human beings** nearby.
  - o Roots of this species go deep inside soil and develop extensively, **damaging**

telecommunication lines, drainage lines and freshwater systems.

5.3.9. AMAZON RIVER BASIN

- As **Lake Puraquequara dried up, floating village** have turned to mud flats.
- Lake lies on **Amazon River basin** which is facing severe drought due to **El Niño and the warming of northern tropical Atlantic Ocean waters.**
  - o These climate phenomena are aggravated by **global warming and burning of fossil fuels.**
- **Amazon river basin:**
  - o **Largest drainage basin in the world**
  - o Covers about **34% of South America.**
  - o Harbours ~**60%** of **world's rainforest** and harbors **10% of planet's** known forms of life.
- **Countries covered**: Brazil (equator and tropic of capricon both pass through it), **Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela.**

5.3.10. PETROLEUM COKE OR PET COKE

- Supreme Court has asked **Commission for Air Quality Management (CAQM)** to consider issues related to distribution of highly polluting pet coke
- Pet coke is a **carbon-rich solid material** derived from **final cracking process** of **crude-oil refining**
- It is used as **a replacement of coal due to its higher calorific value**
- It is **hydrophobic, less volatile and produces low ash** residue,
- It is used in C**ement manufacturing, lime kilns, industrial boilers, Aluminum Anodes,** etc.

5.3.11. UNIFIED REGISTRATION PORTAL FOR GOBARDHAN

- Portal seeks **to streamline the registration of Compressed Bio-Gas (CBG)** and biogas plants nationwide.
  - o CBG/Biogas plants registered in the portal are eligible for assistance of **Rs. 1500/MT** under the **Market Development Assistance (MDA)** scheme of the Ministry of Chemicals & Fertilizers.
- **GOBARdhan** (**Galvanizing Organic Bio-Agro Resources Dhan**) Scheme **under** the **Ministry of Jal Shakti.**
- **Aim:** To generate wealth and energy by converting cattle dung, agricultural residue, and other organic waste into Biogas, CBG and biofertilizers.

5.3.12. POLYETHYLENE TEREPHTHALATE DEGRADING ENZYME (PET46)

- Researchers have identified a **PET46** from a **deep-sea microorganism** for the first time.

- o PET is a **lightweight plastic that is widely used for packaging** foods and beverages e.g., soft drinks, water etc.
- **PET46 enzyme unique** is in its ability to **degrade both long-chain** and short-chain PET molecules, enabling continuous degradation.
- **Significance:**
  - o Potentially break **down PET waste in the ocean**, effectively contributing to efforts to combat plastic pollution.
  - o Contribute to **understanding of ecological role of deep-sea** archaea (marine organism).
  - o **Other PET degrading enzymes** - PETase, MHETase, THC_Cut1 etc.

5.3.13. MANIS MYSTERIA (NEWLY DISCOVERED SPECIES OF PANGOLIN)

- Scientists have discovered **a new species of highly endangered Pangolin**.
- **About Pangolins**
  - o **Only mammals wholly covered in scales**.
  - o **Four species live in Africa**: Black-bellied pangolin, White-bellied pangolin, Giant Ground pangolin and Temminck's Ground pangolin.
  - o **Four species found in Asia**: Indian pangolin, Philippine pangolin, Sunda pangolin, and the Chinese pangolin.
  - o **IUCN status: Chinese, Philippine, and Sunda pangolins** are listed as **Critically Endangered** on the IUCN Red List.
  - o **Indian Pangolin:** Listed in **Schedule I of Wildlife (Protection) Act, 1972**, and as **Endangered on IUCN Red List**.

Manis Mysteria

5.3.14. DAMSELFLY SPECIES

- A New Damselfly species found in the Western Ghats (Kerala) named **Armageddon Reedtail**.
- The name, Armageddon Reedtail, is a direct reference to the concept of **"Ecological Armageddon", a term used to describe the devastating decline of insect populations around the world.**

- **Ecological Role:** Insects play crucial roles in pollination, nutrient cycling and as a food source for other animals.

Damselfly Species

5.3.15. FISH MINT

- **Herbal plant** full of medicinal properties
- **Distribution**: Extends from the Himalayan foothills through Southeast Asia, China, Korea and Japan.
  - o In Meghalaya, known as ja mardoh, tokning-khok in Manipur, in Assam, as masunduri.
- **Features: Has a fish-like taste and smell**. Hence, the name, fish mint.
- **Invasive plant**: Because of its ability to regrow from underground rhizomes forming new plants when disturbed.
- **Medicinal Properties:** used to treat digestive issues, insect bites, fevers, coughs, etc.
- Its benefits have been **documented in ancient texts of Ayurveda and Siddha.**

Fish Mint

5.3.16. DANCING FROGS

- **Dancing frogs of the Western Ghats** are considered one of the **most threatened amphibian genera** as per **second Global Amphibian Assessment** of IUCN
  - o **Nilgiri Dancing Frog** is listed as **Vulnerable** and White-Cheeked Dancing Frog is listed as **Endangered on IUCN List.**

- They are **threatened by invasive species, land use change, extreme weather**, etc.
- Named so as they perform **"foot flagging"** in which males **stretch up their hind legs** one at a time and wave their webbed toes in air in a rapid **motion akin to a dance**.

5.3.17. PINK BOLLWORM

- **Damage by pink bollworm (PBW)** to Bt Cotton worst in two decades
  - o Bt (Bacillus thuringiensis) cotton which incorporates genes from a soil bacterium code for proteins toxic to American bollworm.
- **Pink Bollworm (PBW)** Scientific Name: Pectinophora gossypiella (Saunders)
  - o Bollworm is any larvae of various moths.
- **Native To:** Possibly the eastern Indian Ocean region.
- **Impact:** Adults lay eggs on **cotton bolls; once hatched,** the larvae eat the seeds and damage the fibres of the cotton, **reducing the yield and quality**.

5.3.18. KAMLANG TIGER RESERVE

- Kamlang Tiger Reserve conducted a butterfly walk and nature trail event for the first time ever in association with NGOs.
- **About Kamlang Tiger Reserve**
  - o It is located in the **Lohit district of Arunachal Pradesh** and is named after the **Kamlang river which flows through it.**
  - o **Climate:** Sub-tropical
  - o **Flora:** Common species of trees include *Ammora wallichi* (Amari), *Gmelina arborea* (Gamari), etc.
  - o **Fauna:** Snow Leopard, Clouded Leopard, Tiger, Himalayan Palm Civets, Hornbill, etc.
  - o **Glow Lake** falls within this reserve.

5.3.19. 15-MINUTE CITIES

- It is an **urban planning concept** that advocates putting essential services within walking or biking distance of residents to reduce pollution.
- It is a **spatial development model** to help foster a more local, healthy, equitable and sustainable way of life.

You can scan this QR code to practice the Smart Quiz of Environment at our open test online platform for testing your understanding and recalling of the concepts.

SMART QUIZ

6. SOCIAL ISSUES

6.1. SUPREME COURT JUDGMENT ON LGBTQIA+ RIGHTS

Why in the News?

Recently, a 5-judge constitution bench of the Supreme Court (SC) in **Supriyo @ Supriya Chakraborty vs Union of India case** unanimously refused to accord legal recognition to marriages between persons of the same sex.

More on News

- Several petitions challenged the provisions of the **Special Marriage Act 1954, Hindu Marriage Act (HMA) 1955, and the Foreign Marriage Act 1969** to the extent these legislations do not recognise non-heterosexual marriages.
- On the issue of marriage, the court, **exercising judicial restraint**, expressly left it for the legislature and executive to decide, citing them being **matters of policy**.
  - While all five judges **acknowledged the need to eliminate discrimination against same-sex couples**, they **did not unanimously agree on granting queer couples** the designation of a legally recognized **"civil union."**
  - A majority of three judges asserted that any **legal acknowledgement of such a union should only occur through enacted legislation.**

Know the term

- **Civil Union:** It is **a legal recognition,** originally created for same-sex couples in jurisdictions where **they are not legally allowed to marry.**
- It is basically a **halfway approach** between non-recognition and full recognition to homosexual marriages.
- It grants rights similar to those of marriages and was **first legalized in 1999 in state of Vermont in the US.**

LGBTQIA+ rights: Petitioner's arguments and court verdict

Issues	Petition	Court Verdict	Dissenting opinion
The right of transgender persons to marry	• There exists a **fundamental right to marry a person of one's own choice under the Constitution**, and the court must address the denial of that right. • If the court recognised this as a fundamental right, then it would cast an obligation on the state to protect this right.	• Unanimously held that there was no fundamental, unequivocal right to marry in India. • Transgender persons have a right to marry under the current framework.	
Right to enter a Civil Union for queer couple	• Recognition of a civil union for queer couples.	• Court cannot prescribe a choice of civil unions to queer couples. • Government is not obligated to recognize the bouquet of rights flowing from such a Union.	• Sought recognition of civil unions to ensure that queer couples could get material benefits flowing from a marriage. • Right to form intimate associations falls within the ambit of Article 19. • Right enter a union cannot be restricted on the basis of sexual orientation.
Interpretation of Special Marriage Act (SMA)	• **Replacement of gender-specific terms** such as "husband" and "wife" with the more inclusive terms "party" or "spouse." • **SMA violates Articles 14, 15, 19, 21 and 25** by not	• **The Court declined to invalidate or interpret the SMA in a gender-neutral manner**, stating that such actions would encroach upon the legislative domain and could have a	• SMA **violated the equality provisions of the Constitution.** o Also, hold that the SMA was not unconstitutional for violating Articles 14 and 15 as the sole intention of the SMA was to enable marriage, as it was

	allowing marriage between same sex.	"cascading" effect on other laws.	understood at the time the 1954 Act was passed (i.e., for heterosexual couples), of persons of different faiths.
Adoption rights for non-heterosexual couples	• Guidelines of the **Central Adoption Resource Authority (CARA),** which **does not allow unmarried couples to jointly adopt children, is discriminatory** against queer couples who cannot legally marry.	• **Upheld the restriction imposed by the CARA** on queer couples from adopting. • Observe that striking down the rules may have deleterious, "disastrous" and "anomalous outcome" that "only the legislature and executive could remedy.	• **The regulation was discriminating against the queer community** and hence was violating Article 15 of the Constitution. • **Exclude the word "marital"** so that it includes both married and unmarried couples as well as queer couples so that they too can jointly adopt a child.

Other key Highlights of the Judgment

- **Courts limit the question to secular laws:** During the hearings, the bench expressed that it would confine the issue only to the Special Marriage Act and would not touch personal laws.
  o If the court were to interpret HMA to include LGBTQIA+ marriages, the SC would also have to consider the bundle of rights dealing with adoption, guardianship and inheritance available to heterosexual couples.
- **Judicial restraint**: Judgement signifies **judicial restraint** on the part of the Supreme Court wherein it refrained from taking on the role of the legislature to develop, guarantee, and enforce fundamental rights.
  o Enactment of law pertaining to marriage comes under the purview of the Legislature in terms of Articles 245 and 246 and Entry 5 of the concurrent list.
- **Dissenting opinion and observations:** Several observations in the judgment may pave way for the future deliberations and discussions on the rights LGBTQIA+ community. For example, 'Queerness or homosexuality is not an urban, elite conception or expression'.

Legal Milestones in LGBTQIA+ Rights

2014: NALSA vs. UoI
⇨ Recognition of non-binary gender identities

2018: Navtej Singh Johar vs. UoI
⇨ Decriminalization of Section 377 of the IPC

2017: Justice KS Puttaswamy (Retd.) vs. UoI
⇨ Right to Exercise Sexual Orientation

2019: Transgender Persons (Protection of Rights) Act

LGBTQIA+ rights across the world
- Currently, there are **more than 130 countries** that have **decriminalized homosexuality**.
- The **Netherlands was the first** country to **legalise same-sex marriages in 2001**.
- Since then, **more than 30 countries** around the world have **legalized the same-sex marriages**.

- **Prevention of violence and discrimination against queer persons:** The Supreme Court has issued directives to the government and police to prevent discrimination against the queer community.
  o The directives include non-discrimination, public awareness, the helpline for the queer community, safe houses, and protection of intersex children.
  o Specific directions to the police include no harassment, freedom of choice, protection of freedom, protection against violence, and preliminary enquiry.

Conclusion

Though the judgement came as a setback for LGBTQIA+ rights, particularly in the context of marriage and adoption, the assurance by the Union Government to constitute a **committee under the chairmanship of the Cabinet Secretary** gives a ray of hope in the struggle for equality.

6.2. CASTE CENSUS

Why in the News?

The state government of Bihar recently released a report on the caste survey conducted in the state, after a resolution passed by the state legislature for the same.

More on News

- The State government of Bihar said that the exercise was **not a full-scale census,** but a **"social survey" focused on caste demographics**.
- After the release of caste survey data by the Bihar government, **several other states** including Rajasthan, Odisha, Maharashtra, Karnataka, etc., are **planning or conducting caste surveys**.

Caste system in India

- Caste is an **institution uniquely associated with the Indian sub-continent.**
- Caste is by definition a **closed social system whose membership is acquired by virtue of birth**.
  - o Many of the scriptural rules of caste are designed to **prevent the mixing of castes – rules ranging from marriage, food sharing and social interaction to occupation**.
- Although it is an **institution characteristic of Hindu society, caste has spread to the major non-Hindu communities of the Indian subcontinent**.
  - o This is especially true of Muslims, Christians, and Sikhs.

History of Caste census in India

- Caste-wise enumeration of the population was **introduced under the British colonial administration in 1881** and **continued till the 1931 census**.
- In **1941**, the caste-based data was **collected but not published**.
- **After independence**, however, the Government of India **abandoned full caste enumeration** on the apprehension that it may strengthen caste divisions and perpetuate the caste system.
  - o Every census in independent India has **published data on Scheduled Castes (SCs)** and **Scheduled Tribes (STs)**, but not other castes.
- **In 2011, Socio-Economic and Caste Census (SECC)** was conducted through a comprehensive programme involving
  - o The Ministry of Rural Development, the Ministry of Housing and Urban Poverty Alleviation, the Office of the Registrar General and Census Commissioner, India, and State Governments/UT Administrations.
  - o In 2016, the **SECC data, excluding caste data**, was finalized and published.
  - o In 2021, the Central Government, in an affidavit submitted to the Supreme Court, stated that the caste/tribe data derived from the SECC 2011 is deemed "defective" and "not suitable for use."

Census in India

- Census is a **Union subject** (**entry 69 of the union list** under **Schedule VII**) under **Article 246** of the constitution.
- The **Census Act, 1948** provides a plan for conducting population census along with the duties and responsibilities of census officers.
- **Registrar General and Census Commissioner of India,** under the **Ministry of Home Affairs,** is entrusted with the responsibility to conduct decadal census.
- Later, this office was also entrusted with the task of implementation of the **Birth and Death Registration Act, 1969**.

Do you know ?

- Second Backward Classes Commission (Mandal Commission, 1980) **estimated the Other Backward Classes (OBCs) population at 52%.**

Arguments for caste census	Arguments against caste census
- **Constitutional mandate:** Article 340 mandates the appointment of a commission to investigate the conditions of socially and educationally backward classes and make recommendations as to the steps that should be taken by governments. - **Social justice and reforms in reservation policy:** It will aid the government in determining the inclusion of new castes into existing categories or the graduation of advanced castes (creamy layer) out of these categories.	- **Constitutional provisions:** Constitutions speak of backward classes and not backward castes. o The word caste is used in the constitution **only in relation to 'scheduled castes**. - **Difficulties in data enumeration:** Given **thousands of castes and sub-castes in India**, collecting caste data and making sense of the same is difficult.

o Census caste data may also enable a more equitable distribution of reservation benefits by making it possible to devise a **'quota-within-quota' (sub-categorization)** system. • **Policymaking:** Caste census data will help in the formulation of more informed and evidence-based policymaking to cater to the needs and demands of the underprivileged and downtrodden. • **Promoting diversity and inclusivity**: It can be used to monitor the representation of different castes in elected bodies, civil services, and other institutions, thereby promoting diversity and inclusivity. • **Judicial requirement:** In the Indra Sawhney case, the Supreme Court held that the States must conclude the "backwardness" of a particular class of people only after proper assessment and objective evaluation. o The SC also held that such a conclusion must be subject to **periodic review** by a permanent body of experts. • **Annihilation of caste**: Many experts observe that to abolish caste, it is essential to first abolish caste-derived privileges, and to do that, the state must first map castes and their socio-economic status privileges/deprivations.	o Further, **mobilization and counter-mobilization** by various groups seeking gains will inevitably influence the enumeration process and result in **bogus or biased data**. o Difficulties due to empirical complications of **inter-caste marriages**, **hypergamy**, **migration**, etc., which over time have produced **multiple caste affiliations**. • **Potential for Political Misuse**: There are concerns that caste data could be exploited for political purposes, including vote bank politics and identity-based mobilization. • **Rise in demand for reservations**: Critics say a caste-based census may give rise to the demand for more reservations in jobs and educational institutions from various communities. • **Risk of Resentment**: Focusing on caste-based statistics could lead to resentment among different groups. It may exacerbate inter-caste tensions and hinder efforts toward building a more inclusive and harmonious society.

Way Forward

- **Create political consensus**: Decisions on such issues of broad socio-political concern should be taken through broad political consensus.
- **Inclusive Consultations:** Involve a wide range of stakeholders, including community leaders, activists, and experts, in the planning and execution of the caste census.
  - **Social scientists and research institutions** can be involved in the process of enumeration of caste data to ensure that the process remains unbiased.
- **Identify caste and subcaste:** A preliminary socio-anthropological study can be done at the State and district levels to establish all sects and sub-castes present in the population.
- **Use of technology**: Emerging technologies such as **Artificial Intelligence**, **Big Data Analytics**, etc., can be used to analyze and assess caste-based data and **derive meaningful conclusions**.
- **Periodic Review and Updating**: Recognize that social structures evolve over time, and caste identities may change. Design the census with the flexibility to adapt to these changes and plan for periodic reviews to update the data and ensure its relevance.

6.3. YOUTH-LED DEVELOPMENT

Why in the News?

Mera Yuva Bharat (MY Bharat) platform has been launched for youth on National Unity Day.

About MY Bharat

- MY Bharat **is an autonomous body** that is being set up by the Government of India to provide an **over-arching institutional mechanism powered by technology for youth development and youth-led development.**
  - It is an initiative of the **Ministry of Youth Affairs & Sports** to empower Indian youth through **social mobility, educational equity, and practical skills.**
- The platform **connects youth with programs and learning opportunities in Businesses, Government Departments and Non-Profit Organisations**.

- MY Bharat will benefit **the youth in the age group of 15-29 years**, in line with the definition of 'Youth' in the National Youth Policy.
  o In the case of programme components **specifically meant for adolescents, the beneficiaries will be in the age group of 10-19 years.**

Objective of MY Bharat

Leadership Development in Youth

Better alignment between the aspirations of the youth and the community needs

Enhanced efficiency through **Coverage of existing programmes**

Ensuring accessibility by **creating a Phygital Ecosystem**– a blend of physical and digital experinces

Create a **centralized youth database**

Act as a **one-stop shop for young poeple** and Minister

Why does India need to focus on youth?

- **To reap demographic dividend:** India is one of the youngest countries in the world with an **average age of 29 years**.
  o About 65 % of the population is below 35 years of age, while 50 per cent of the population is below 25 years of age.
- **Economic advantage:** When properly educated and skilled, youth can help in expanding economy.
  o **India has the third-largest startup ecosystem in the world.** They are emerging as the **major source** of **employment creation**.
- **Political engagement:** Encouraging qualities like citizenship and dedication to community service among all youth segments is essential for the nation's political and social development.
- **Addressing social challenges:** Many social challenges, such as gender inequality, access to quality education, and healthcare, can be effectively addressed by focusing on the youth.
- **To protect the environment:** Youth can play a major role in the protection and preservation of nature, including natural resources.
  o Indian Youth is passionately adopting **the 'Lifestyle for the Environment (LiFE) Movement'** and promoting its underlying principle to move forward with **Sustainable development.**
- **Global competitiveness:** In an increasingly interconnected world, countries with a skilled and youthful workforce are better positioned to compete effectively on the global stage. India's youth can significantly contribute to the nation's global standing.

Challenges Faced by Youth of India

- **Poor Education System:** Include poor quality of education (less emphasis on vocational education), lack of access to higher education, and high dropout rates.
- **High Unemployment**: The unemployment rate among educated youth is quite high, which is significantly higher than that in most developed and developing countries.
  o In 2022, the estimated **youth unemployment rate in India was 23.22 per cent** (ILO).
- **Exploitative Workplace**: Includes paid low wages, working long hours, harassment (especially women), and having no social security or legal protection.
- **Social Issue**: Includes substance abuse, violence, crime, radicalization, communalism, and gender discrimination.
  o These problems affect their **moral values**, **civic sense**, **social responsibility**, and **national integration**.
- **Psychological Issues**: **Low confidence** and self-belief throw them into the phase of depression when they are not able to achieve their dream.

- o They even go to the extent of suicide. E.g. recent cases in the education hub of Kota.
- **Cultural and Social Expectations:** Traditional cultural norms and societal expectations can sometimes restrict the choices and aspirations of young people, particularly in terms of education, career, and marriage.
- **Social media addiction in youth**: It is marked by excessive use, impacting mental health, relationships, and productivity.

Initiatives Promoting the Role of Youth

Education	• New Education Policy, 2020 • Smagra Shiksha (An integrated School Education), 2018
Health and Wellness	• **Ayushman Bharat** o Health and Wellness Centres (HWCs) o Pradhan Mantri Jan Arogya Yojana (PM–JAY)
Entrepreneurship	• **Start-up and Stand-up India**
Science	• Science cities/centres and Innovation Hubs • IMPacting Research INnovation and Technology (IMPRINT–2)
Infrastructure	• Smart Cities Mission • Atal Mission for Rejuvenation and Urban Transformation (AMRUT) • PM Gati Shakti.
Skill Development	• Pradhan Mantri Kaushal Vikas Yojana. • Skills Acquisition and Knowledge Awareness for Livelihood Promotion (SANKALP)
Innovation	• Atal Tinkering Lab (ATL) program

Way Forward

- **Political Empowerment**: Training youth organizations and **civil society organizations** to lobby and advocate on youth issues.
  - o Involving youth in policy-making and decision-making processes to address their unique needs and concerns.
- **Bridge skill gap**: Importance must be given to vocational skills, internships, and embedded apprenticeship degree programmes, to ensure that students receive hands-on learning experiences in real-life scenarios.
  - o **Promoting Soft Skills** such as creativity, decision-making, strategic thinking, interpersonal skills, leadership skills, cognitive intelligence and time management.
- **Health and education spending**: Evidence suggests that **better health facilitates** improved **economic productivity**.
- **Promoting Access and Participation**: Special initiatives and drives are needed for marginalised communities and certain regions such as rural areas, North-east India etc.

6.4. AGEING POPULATION

Why in news?

United Nations Population Fund India (UNFPA) has released India Ageing Report 2023.

More on news

- The India Ageing Report 2023 represents a thorough review of the living conditions and welfare of older individuals in India.
- The report was prepared in collaboration with the **International Institute for Population Sciences (IIPS).**

Key Highlights of the report

- **Sharp growth in the elderly population** is observed from 2010 onwards along with a decline in the age group of below 15 years, indicating rapidity of ageing in India.

- **Significant interstate variation** in absolute levels and growth of the elderly population.
  - Compared to southern and western India, central and northeastern regions have the younger group of states.

Challenges of Ageing Population

- **Social Issues**:
  - **Feminization** (Women living longer than men) **of Ageing**: Poverty is inherently gendered in old age when older women are more likely to be widowed, living alone, with no income and with fewer assets of their own, and fully dependent on family for support.
  - **Ruralization of Ageing:** According to the **Census of India 2011**, about 71 % of older persons live in rural areas. These are more vulnerable to income insecurity, lack of access to adequate and quality healthcare and isolation in comparison to urban counterparts.
  - **Ageing of the aged**: During 2000–2022, the total population of the country grew by 34 %, while the population of 60+ years grew by 103 %.
  - **Other:** Isolation and loneliness will increase due to the trend of nuclear families, lack of availability of a social security system, gender-based discrimination against women etc.
- **Economic Burden**: The productivity of the nation will fall along with labour force shortages, public dissaving, and old-age income insecurity.
- **Healthcare and Long-Term Care:** The elderly often require more extensive healthcare services and long-term care, which can strain the healthcare system.
- **Psychological Issues**: The Longitudinal Ageing Study in India (LASI) survey finds that the Incidence of depression was seen to be rising with increasing age and was higher among elderly women than men.

United Nations Population Fund (UNFPA)

New York City, United States

Genesis: Established as a trust fund in 1967 and began operations in 1969.

About: UNFPA is a subsidiary organ of the UN General Assembly. It receives overall policy guidance from the UN Economic and Social Council (ECOSOC).

Mandate: Ensure sexual and reproductive rights and choices for all, especially women and young people.
- Its work is guided by the 1994 **Programme of Action of the International Conference on Population and Development (ICPD).**

Key Target : Achieve **three zeros,** by 2030. It includes-
- Ending unmet need for family planning.
- Ending preventable maternal death.
- Ending gender-based violence and harmful practices.

Other Key Information:
- Collaborates with many other development and humanitarian agencies in the field, particularly **WHO, UNICEF, UNDP and UNAIDS.**
- It works in more than 150 countries and territories.
- State of **World Population report** is released by it.

Factors contributing to population ageing

Increasing survival at older ages | Declining fertility | Reduction in mortality
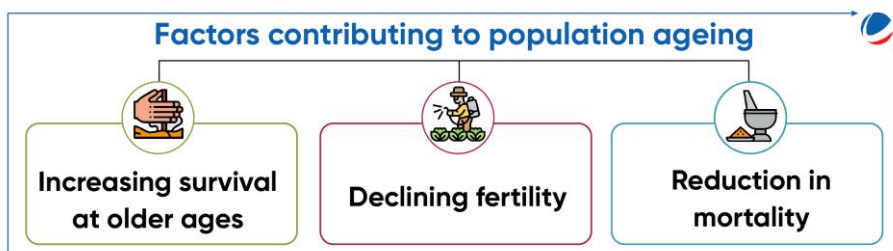
Data Bank
- **1.1** billion persons aged 60 years or above in 2022 globally.
- **20.8%** is the projected proportion of the population aged 60 years and older by 2050, doubling from 10.5% in 2022.
- **2.5%** of the elderly men and 8.6% of the elderly women were **living alone in India** according to the LASI survey.
- **30%** of the elderly women and 28% of the men **suffered from one chronic morbid condition.**

Ways to Transform Ageing Population into Opportunity

- **Promoting Elderly SHGs (ESHGs)**: ESHGs should also be linked with the **Livelihood Mission**, making them more productive and self-reliant.
- **Regulating old age homes**: They should be brought under government monitoring, and a regulatory body can be set up for the same.

- o Also, ensuring ageing in situ (at home) should be a priority rather than an old age home.
- **Promoting Silver Economy**: It includes all those economic activities, products and services designed to meet the needs of people over 50.
- **Leveraging Digital Ecosystem**: Promoting digital literacy among old population will enhance their productivity and it will promote their integration into the economy.
- **Awareness Derives**: Senior citizens lacked awareness about the various schemes and programmes meant for them.
  - o As per the LASI report only 12% of the **elderly** are aware of the **Maintenance & Welfare Act**.
- **Other**
  - o Promote **Corporate Sector Involvement** in Elder Care
  - o **Expand services for the elderly**, including home healthcare, Creche-like facilities or equipped day-care centres, and assisted living facilities.
  - o **Develop age-friendly infrastructure.**

Initiative Taken

Global
- **Madrid International Plan of Action on Ageing (MIPAA), 2002**
- **Sustainable Development Goal (SDG 3: ensuring healthy lives and well-being at all ages)**
- **United Nations Decade of Healthy Ageing: 2020–2030**

India
- **Constitutional: Article 41** mandates the well-being of senior citizens.
- **Legislative and policies**
  - o Maintenance and Welfare of Senior Citizens Act, 2007.
  - o National Policy on Older Persons (NPOP), 1999
  - o Senior Citizens' Welfare Fund (SCWF), 2016
- **Social Security and Welfare Schemes:**
  - o **Indira Gandhi National Old Age Pension Scheme (IGNOAPS) (2007):** It is one of the five sub-schemes of the National Social Assistance Programme (NSAP).
  - o **Pradhan Mantri Vaya Vandana Yojana (2017)**: Provide's social security during old age.
  - o **Atal Vayo Abhyuday Yojana' (AVYAY) (2021)**: AVYAY is an umbrella scheme has following schemes under it, namely:
    - ✓ **Scheme of Integrated Programme for Senior Citizens**
    - ✓ **State Action Plan for Senior Citizens**
    - ✓ Rashtriya Vayoshri Yojana (RVY)
    - ✓ **Livelihood and Skilling Initiatives for Senior Citizens**
    - ✓ Promoting silver economy
- **Concession and Rebates**: It includes Yatri Mitra services by Railways, etc.

Scan the QR code to know more about **Aging and associated issues.**

Weekly Focus #84: Towards Empowered Ageing in India

6.5. NOBEL PEACE PRIZE 2023: WOMEN RIGHTS

Why in the News?

Recently, Iranian human rights activist Narges Mohammadi was awarded the Nobel Peace Prize (2023).

More on News

- Narges Mohammadi is a scientist, journalist and human rights campaigner who persistently **fights against the oppression of women in Iran and the promotion of human rights and freedom for all.**
- The selection reflects the **Nobel Committee's growing recognition of women who lead political and social opposition movements** worldwide.

Global Women's Rights Movement

- Different countries have **variety in women's rights activism** depending upon their **histories, nature of States, economic models, cultural formations,** and **political forms**.
- **UN Women** and feminist scholars and activists broadly divide the global movement for women's rights into **4 generations/ waves**.
- **First wave:** The first wave emerged in the late **19th and early 20th centuries**, primarily in Western countries. Its focus was on legal issues, particularly women's suffrage (the right to vote).
  - Additionally, they called for **equal rights within the family, equal pay, and access to higher education.**
- **Second wave:** It **began 1970s and 1980s** and was part of a wider youth movement that grew out of the **expansion of higher education**.
  - They were inspired by the **Civil Rights movement in the United States**, the **opposition to Apartheid** and the **Vietnam War**.
  - Activists during the initial stages of the second wave were both radical and critical.
  - A fundamental shared principle among various feminist currents was the **advocacy for autonomy, emphasizing women's entitlement to define their own agendas**, even while engaging within political organizations and parties.
  - Activities of this wave include supporting **fair wage** and **reproductive rights** campaigns, creating **women-only journals and publishing houses**, etc.
- **Third wave:** It **roughly spans around the 1980s and 1990s** and coincided with the gradual **entry of feminists and feminist ideas into mainstream politics**.
  - **Three significant elements** of this wave include:
    - ✓ Importance of **policy-related activism**;
    - ✓ Strengthening of feminist movements and rights advocacy in the **Global South**;
    - ✓ Consolidation of **women's studies as a discipline.**
  - **United Nations' four world conferences on women** – Mexico (1975), Copenhagen (1980), Nairobi (1985) and Beijing (1995) - were an important stimulus for policy work and for global feminist interaction.
  - It also saw the creation of the **Beijing Platform for Action (PFA)**, a policy action framework inspired by the **Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)**.
- **Fourth wave:** The emergence of the internet led to a new brand of **social media-fueled women's rights movement**.
  - These feminists **embraced various social justice issues** including **racial equity**, **immigration reform**, **reproductive rights**, **environment**, and **LGBTQIA+ rights**.
  - 3 prominent cases of this wave include:
    - ✓ **Brazil:** Feminists involved in efforts to protect rights previously gained.
    - ✓ **India:** Campaigns around gender-based violence.
    - ✓ **Malawi:** Work of LGBTQIA+ activists to secure justice and recognition.

> **About Nobel Peace Prize**
> - The Nobel Peace Prize is **one of the five original Nobel Prizes established by the will of Alfred Nobel.**
> - It was to be awarded to the person "who shall have done the **most or the best work for fraternity between nations**, for the **abolition or reduction of standing armies** and for the **holding and promotion of peace congresses**".
>   - It has been **awarded both to individuals and organizations**.
> - The **first Nobel Prizes were awarded in 1901**.

Contemporary issues faced by women

Social: Gender role stereotyping, adverse sex-ratio, violence against women, etc.

Political: Under-representation in politics and other state institutions.

Economic: Gender pay gap, denial of maternity leave, etc.

Conclusion

Feminism constitutes a facet of contentious politics, representing a global social movement that exhibits sustained vitality. While priorities and interpretations may vary, there are notable commonalities in the demands articulated by feminists across countries, regions, and decades. This underscores the enduring nature of gender inequality and the gradual pace of advancement in meeting the persistent demands of the feminist agenda.

Evolution of Women's Movement in India

The roots of the women's movement in India can be traced back to the late 19th century and has transformed over time involving multiple stakeholders including state and civil society.

Phases of women's movement

- **First phase**: Its foundations were laid by the **reform and anti-colonial movements** of the **19th and 20th centuries** on specific issues such as sati, child marriage, etc.
  - The aims of the movement were centred on **including women in public life** with better **political rights**, access to education and employment, etc.
  - **During the Gandhian era** of national movement, women **continued their movement for political rights and social reform** activities by forming organisations.
- **Second phase:** The second phase refers to the women's liberation movement which began in the 1960's and was concerned with the legal and social equality of women.
  - The publication of the **Towards Equality Report (1974) and The Convention on the Abolition of all Forms of Discrimination Against Women (1979)** offered the moral and rational basis of **a new wave of autonomous women's movement** manifested both in the activist and the academic spheres.
    - ✓ **Towards Equality Report**, exposed the abysmal state of women in contemporary India manifested in the declining sex ratio, the increasing rate of female mortality and morbidity, the economic marginalisation of women and the evils of discriminatory personal laws.
  - A significant movement of this phase is the **Chipko movement in 1973** which saw women protest for their **rights against environmental and economic calamities**.
  - The key **difference between the first and second phases** was that the **former was espoused by men on behalf of women** while the latter was largely led by **women and women's organisations** such as the **Self-Employed Women's Association (SEWA)**.
- **Third phase:** It **began in the early 1990s**, surging from the new postcolonial and neoliberal world order.
  - The third wave **deconstructed the idea of "universal womanhood"** with the focus moving from communal objectives to **individual rights**.
  - Women at the 'grassroots' of society were **provided with the opportunity to be a part of formal decision-making and governance.**
    - ✓ The 73rd and the 74th amendments to the Constitution (assuring local self-governance) provided a 33 per cent reservation of seats for women in the Panchayat and Nagarpalika bodies.
  - Women-led NGOs proliferated in a bid to provide support to other women. The movement also **took up the rights of Dalit and marginalised women.**
- **Fourth phase:** Although debated, many claim that a fourth phase of feminism **began around 2012**, with a focus on **sexual harassment**, **body shaming**, and **rape**.
  - Although the fourth wave **originated in the West**, it **emerged in India almost synchronously** due to the widespread use of social media.
  - A key component of this wave was the **use of social media** like the **#MeToo Movement** leading to local protests and global outrage.

6.6. PRO-LIFE VS. PRO-CHOICE

Why in the News?

The Supreme Court rejected the plea of a married woman to abort her third pregnancy which has crossed 26 weeks.

More on News

- The present case had been filed on the ground that the petitioner was suffering from post-partum psychosis and was not able to raise a third child, emotionally, financially, and physically.
- Noticing that the **pregnancy had crossed 24 weeks**, the court stated that permitting the petitioner to carry on with the **termination of pregnancy would violate the Medical Termination of Pregnancy (MTP) Act, 2021.**

> **Medical Termination of Pregnancy (MTP) (Amendment) Act, 2021**
> - It allows termination of pregnancy in following cases:
>   - **Up to 20 weeks**: Available to all on advice of single medical practitioner (MP).
>   - **Between 20 and 24 weeks**: Available only in specific cases such as risk to life of pregnant women, substantial risk of abnormalities to child, etc., subject to advice of two MPs.
>   - **Beyond 24 weeks**: Available only on grounds of substantial foetal abnormalities on the advice of a **medical board**.
> - In India, carrying out abortion is illegal under section 312 and 313 of Indian Penal code, unless it is performed in a manner prescribed under MTP Act.

- o The Court also noted that there was **no immediate threat to the mother** and that it was **not a case of foetal abnormality.**
    - ✓ These are the only two exceptions to terminate a pregnancy beyond the outer limit of 24 weeks as per the MTP Act.
- The three-judge Bench headed by the Chief Justice of India said the Court's recognition of a **woman's autonomy cannot eclipse the "rights of the unborn child."**
- The judgment has sparked the **Pro-life vs. Pro-Choice debate** in India vis-à-vis the reproductive rights of women.

Pro-Life vs. Pro-Choice debate

Pro-Life	Pro-Choice
Pro-Life supporters demand that **society should support the ability of women to give birth and provide life** and **no woman should be driven to have an abortion.**	Pro-choice stance believes that **women have the basic human right to decide when and whether to have children.**
Arguments of Pro-Life • **Sanctity of Human Life:** Life begins at conception, making abortion murder. Abortion promotes a culture in which human life is disposable. • **Sex-selective abortions:** Allowing abortions may give way to **sex-selective abortions** as part of **Planned Parenthood**. • **Support for Pregnant Women:** The solution to mental health problems of parents should be social and familial support and not abortions. • **Religious and Moral Beliefs**: Many pro-life advocates ground their stance in religious or moral beliefs that regard abortion as morally unacceptable. • **Advancements in Foetal Development Understanding**: With the advancements in medical technology, foetal viability has gone earlier during the period of pregnancy.	**Arguments of Pro-Choice** • **Reproductive Rights:** Abortion bans result in the denial of bodily autonomy and reproductive rights to women. • **Quality of Life**: Forced pregnancy may adversely impact the mental health of the parent(s). Also Forced births can have an adverse impact on the upbringing of the child. • **Exceptions for Special Cases**: Pro-choice advocates often emphasize the importance of exceptions for cases involving rape, incest, or situations where the mother's life is at risk. • **Overpopulation**: Allowing women to make choices about when and whether to have children can contribute to better family planning. • **Social Impact:** Financial hardships, poverty, etc., may lead to broken homes in cases of unwanted pregnancies.

Pro-Life vs. Pro-Choice Debate in India

- Under the MTP Act, of 1971, **abortion is a qualified right in India** and can't be performed based solely on a woman's request.
- The judiciary, within the legislative framework, adopted **careful, compassionate**, and **nuanced considerations** respecting the **autonomy of women** while acknowledging the **welfare of the unborn child.**
- Further, the SC also noted that **registered medical practitioners should refrain from imposing extra-legal conditions on women** seeking to terminate their pregnancy.

Do you know ?
> In 2022, the Supreme Court (SC) of India ruled that for the **sole purpose of the MTP Act,** the **meaning of rape must include marital rape.**
> Further, the SC also extended the **right to safe and legal abortion up to 24 weeks to unmarried and single women.**

Way Forward

- **Sex education:** Children and adolescents should be provided **age-appropriate sex education** which may involve **relationship education, fertility awareness education**, etc.
    - o It will help **prevent unwanted pregnancies** and incidents of **sexual violence including marital rape** in society.
- **Reproductive healthcare:** Establish and expand reproductive healthcare **to ensure that every child is wanted, every birth is safe**, and **every girl and woman is treated with dignity**.
    - o It should involve **expanding choices and quality of services in family planning**, strengthening **midwifery initiatives**, etc.
- **Adoption: Streamlining** the process of adoption and removing adoption stigma can ensure better care for the child if parents find child raising difficult.

Global status of abortion laws
- According to **Centre for Reproductive Rights (CPR)**, **more than 60 countries have liberalized** their abortion laws over **past 30 years**.
- Only **4 countries** – the US, Nicaragua, El Salvador, and Poland - have **rolled back the legality of abortion**.
- There are **24 countries** in the world where abortion is **completely prohibited.**

- **Workplace: Equal pay for equal work** regardless of gender, **better paid parental leave**, **subsidized childcare**, etc., can also help reduce the cases of abortions.
  - Need to provide an adequate **gap management structure** to build processes **to handle maternity breaks**. **e.g.,** Zomato provides a unique support system of assigning an employee to assist new mothers, so that they are not always required to be physically present at the workplace.

6.7. AGE OF CONSENT

Why in the news?

22nd Law Commission in its 283rd report advised that the age of consent should be not reduced from 18 to 16 years.

More on news

- Law Commission received a reference to consider the reducing age of consent from 18 to 16 under the **Protection of Children from Sexual Offenses (POCSO) Act, 2012.**
- **POCSO Act, 2012** was enacted to protect children from offences of sexual assault, sexual harassment and pornography.
  - The Act also provides for the establishment of **Special Courts** for the trial of such offences.

> **About Law Commission**
> - It is a **non-statutory body** and is constituted by a notification of the Ministry of Law & Justice.
> - **Vision:** Reforming the laws for maximizing justice in society and promoting good governance under the rule of law.
> - The Central Government established the **First Law Commission in 1955 (Post-Independence)** with the then Attorney-General of India, Mr. M. C. Setalvad, as its Chairman.
>   - Since then twenty-two Law Commissions have been appointed, **each with a three-year term and with a definite term of reference.**
>   - The first Law Commission was appointed in India in 1834 (Pre-Independence) as per the Charter of 1833.

What is the Age of Consent?

- Age of consent is defined as the age at which one is **considered legally competent to consent for sexual activity**.
- The **POCSO Act fixed the age of being categorised as a child at 18 years**, thus making it the default "age of consent'.

Arguments for Reducing Age of Consent

- **Rising Criminal Cases under the POCSO Act:** In recent times**,** it has been witnessed that the registration of criminal cases has been increasing under the POCSO Act.
  - Girls' parents want the police to press charges under the POCSO Act against the accused in cases where the two have eloped or engaged in consensual sexual activity (romantic cases).
  - It will help in avoiding the **injustice of adolescent boys** being treated as **criminals**.
- **Children get Mature Early:** Every male or female near the age of 14 years, due to **social media awareness** and **easily accessible internet connectivity**, is getting puberty at an early age and they are mature enough to make the right decision.

> **Age of consent in IPC**
> - In line with the age criteria provided under the POCSO Act, Section 375 of the Indian Penal Code was **amended by the Criminal Law Amendment Act, 2013 to raise the age of consent to sexual intercourse to 18.**
> - However, the **exception for a man having intercourse with his wife who is not under the age of 15 years** remained on the statute book.
> - This is **contradictory to the POCSO Act** as Section 42A of the POCSO Act, which gives it an overriding effect over other laws, was inserted by the same 2013 Amendment Act.
>   - In the case of **Independent Thought vs Union of India,** the **Supreme Court read down the exception in the IPC** that exempted sexual intercourse between a man and his wife being a girl between 15 and 18 years of age from being considered rape.

- **Recognition of sexual autonomy:** Sexual autonomy encompasses both, the right to engage in wanted sexual activity and the right to be protected from unwanted sexual aggression.
  - Only when both aspects of adolescents' rights are recognised, human sexual dignity can be considered to be fully respected.
- **Adopting Global Practices:** Age of consent ranges from l3 to 18 years globally. The age of consent in Germany, Austria, Hungary, Italy, and Portugal is 14. In England and Wales, it is 16 years.

Arguments against Reducing the Age of Consent

- **Lacks emotional or psychological maturity**: Due to this, they are not able to make **informed decisions** about sexual activity.
- **Convergence with Age of Marriage**: Age of consent and age of marriage should not be conflated in theory, in practice, given the country's social milieu, the **two are intrinsically linked**.
- **Child exploitation and trafficking**: Any reduction in the age of consent will inevitably provide a **safe harbour provision to coerce minor girls** into subjugation, marital rape and other forms of abuse, including trafficking.
- **Promotes child marriage:** Any decrease in the age of consent would negatively impact the age-old fight against child marriage by providing parents an opportunity to marry off minor girls.
- **Encourage child/teenage pregnancy:** Lowering the age of consent could lead to dire consequences, not only for the health and well-being of the child forced into early marriage but also for the potential offspring of such relationships.

Recommendations of Law Commission

- **Guided judicial discretion:** Under it, if the Court finds that if relationship between the accused and the child has been intimate, the Court may**, impose any lesser sentence on the accused than the minimum sentence prescribed under the Act.**
  - For this, the difference in age between the accused and the child is **not more than three years**.
  - It has also recommended that discretion be used if there is tactical approval, the accused has no criminal antecedents, bears good conduct after the offence, etc.
- **Amendments to the Juvenile Justice (Care and Protection of Children) Act 2015:** Cases under the POCSO Act in which both parties are aged between 16 to 18 years can be dealt with by the Juvenile Justice Board instead of the criminal courts.
  - The Commission suggests changes to Section 18 of the JJ Act empowering the JJ Board to dispose of such cases by awarding sentences other than imprisonment such as - admonishment, community service, counselling, and release on probation on condition to maintain good conduct.
- **Spreading awareness** regarding sex, consequences of engaging in sex at an early age, information about contraception and safe sexual behaviour along with awareness regarding the POCSO Act.

6.8. CHILD SEXUAL ABUSE MATERIAL (CSAM)

Why in the news?

Recently, the **Ministry of Electronics and Information Technology (MeitY)** issued notices to social media platforms, including Telegram, X (formerly Twitter), and YouTube, to **remove Child Sexual Abuse Material (CSAM)** from their platforms in India.

More on news

- **Information Technology (Intermediary Liability Guidelines and Digital Media Ethics Code) Rules, 2021** under the IT Act 2000 lays down strict **expectations from social media intermediaries** that they should **not allow criminal or harmful posts like CSAM on their platforms**.
- MeitY has warned the social media intermediaries that any **delay in complying with the notices will result in the withdrawal of their safe harbour protection.**
  - **Safe harbour protection** refers to immunity against third-party content, implying that it shields them from any legal liability. It is under **Section 79 of the IT Act 2000**.

WHAT'S BEHIND CHILDREN'S SILENCES ON SEXUAL VIOLENCE?

- Too much exposure to children who have experienced sexual violence
- Denial
- Self-blame & shame
- Respect for elders
- Loyalty to family
- Concern for perpetrator
- Fear of not being believed
- To protect family from conflict with the community
- Fear of bullying & mocking
- Mistrust of authorities
- Other forms of abuse are sometimes more hurtful

SILENCE

What is Child Sexual Abuse Material (CSAM)?

- **Child sexual abuse material** (CSAM) refers to any content that depicts sexually explicit activities involving a child.
- CSAM are **part of Online Child Sexual Abuse and Exploitation (OCSAE)** that incorporates activities such as luring children into sexual chats, production, and distribution of child CSAM, live streaming sexual assault of minors etc.
  - **About 4.5 lakh cases of spread of CSAM** have been **reported in India** as of May 2023.
  - Globally, it is estimated that **up to 1 billion children aged 2–17 years, have experienced physical, sexual, or emotional violence.**

Impact of Child Sexual Abuse Material (CSAM) on Survivors

- **Guilt, shame, and blame**: Survivors might feel guilty about not having been able to stop the abuse, or even blame themselves.
- **Mental Health**: Exposure to CSAM can cause **psychological stress** like anxiety, depression, and Post-Traumatic Stress Disorder (PTSD), which leads to **lower motivation for academics, self-harm tendencies** etc.
- **Social isolation**: Childhood online sexual abuse leads to **diminished self-esteem** through harmful messages from abusers, **impairs interpersonal relationships**, **hinders trust-building**, and deepens isolation and loneliness in survivors.
- **Substance and alcohol abuse**. To cope with the trauma of childhood sexual abuse, survivors turn to alcohol and substances in adolescence, often continuing this pattern into adulthood.
- **Disease burden**: CSAM contributes to a wide range of **communicable and non-communicable diseases** like sexually transmitted infections including HIV, and **other health conditions** (unintended pregnancies, induced abortion etc.).

Measures taken to curb CSAM.

- **Information Technology (IT) Act, 2000**: Sections 66E, 67, 67A, and 67B of the IT Act impose **stringent penalties and fines for online transmission** of obscene or pornographic content including CSAM.
- **IT Rules 2021**: It aims to **curb the circulation of CSAM on social media platforms**.
  - As per **Rule 3(1) (b),** platforms must "make reasonable efforts" to prevent users from posting content that is paedophilic or harmful to children.
  - **Rule 4(4)** requires large social media platforms (more than 50 lakh users in India) to **deploy technology-based measures, including automated tools** to proactively identify information that depicts child sexual abuse.
- **Protection of Children against Sexual Offences (POCSO) Act, 2012**: It provides **protection to all children under the age of 18 years from offences of sexual assault**, sexual harassment, and pornography.
  - It provides for **stringent punishments** which have been **graded as per the gravity of the offence**.
- **Online Child Sexual Abuse and Exploitation (OCSAE) Prevention/Investigation Unit** was set up by CBI to probe offences covered under various provisions of IPC, POCSO Act and IT Act, apart from other relevant laws.
- Under the Nirbhaya Fund, the Government implements a project namely, **'Cyber Crime Prevention against Women and Children (CCPWC)'**, for awareness.
- **Digital Personal Data Protection Act, 2023** places three conditions on data processing entities for children's data: Obtaining "verifiable parental consent", not causing harm to children, and not tracking or monitoring children or targeting ads at them.
- **Initiatives by Social Platforms:** YouTube uses an **automatic tool called Child Sexual Abuse Imagery (CSAI) Match to proactively weed out CSAM**.

Challenges in Countering Child Sexual Abuse Material (CSAM)

- **Lack of awareness:** Limited knowledge and access to India's CSAM reporting platforms leads to an **very low number of self-reported** crimes.
  - In 2020, the **National Cybercrime Reporting Portal (NCRP)** recorded 1,102 cybercrimes against children. By contrast, NCRB received about 2.7 lakh reports of OCSAE from the National Centre for Missing and Exploited Children (NCMEC) in 2020 alone.
- **Balancing Privacy and Safety of children:** To trace content related to child sexual abuse, social media platforms would have to **break end-to-end encryption, compromising the security of online communications** and violating the Right to Privacy under Article 21.

- **Anonymity:** Offenders exploit the vulnerabilities of young children through **social networking websites and Chat spaces using fake accounts.** This makes the identification of sexual abusers, facilitators, and prosecution of viewers of child abuse content difficult.
- **Digital age:** The increased use of social media platforms, the **mass migration to online classes, and the use of educational apps** can also negatively impact children.
  - From 2019- 2020, Cybercrimes against children rose by 400% due to COVID-19 and shift to online mode of services such as education etc. Nearly 90% of these crimes involved the publication or transmission of CSAM.

Way forward

- **Regulation:** Social Media Companies can **implement proactive measures such as content moderation algorithms** and reporting mechanisms to prevent the future dissemination of such content.
  - Also, there is a **need to develop a National Framework for Child Online Safety** to recognize the importance of safe physical and online environments to promote the well-being of all children and young people.
- **Target online grooming and preparatory behaviour:** Identify and combat preparatory child sexual exploitation and abuse activity (such as online grooming for child sexual abuse).
  - Online grooming is a term used to describe the tactics abusers deploy through the internet to sexually exploit children.
- **Awareness:** A nationwide awareness campaign through mass media can generate the necessary public attention towards the issue of child sexual abuse.
  - Also, steps should be taken to **integrate modules on OCSAE into computer science and sex education curricula at schools.**
- **Collaboration:** India should adopt an **outward-looking approach and explore bilateral or multilateral partnerships to promote child safety online.** Strategic partnerships with countries having robust mechanisms to address OCSAE. E.g., Australia can be explored.
- **A specialised approach for children:** Enhanced safety measures while browsing can be developed with the aim of protecting children, in particular from peers or adults seeking to engage in harmful sexual activity with children.
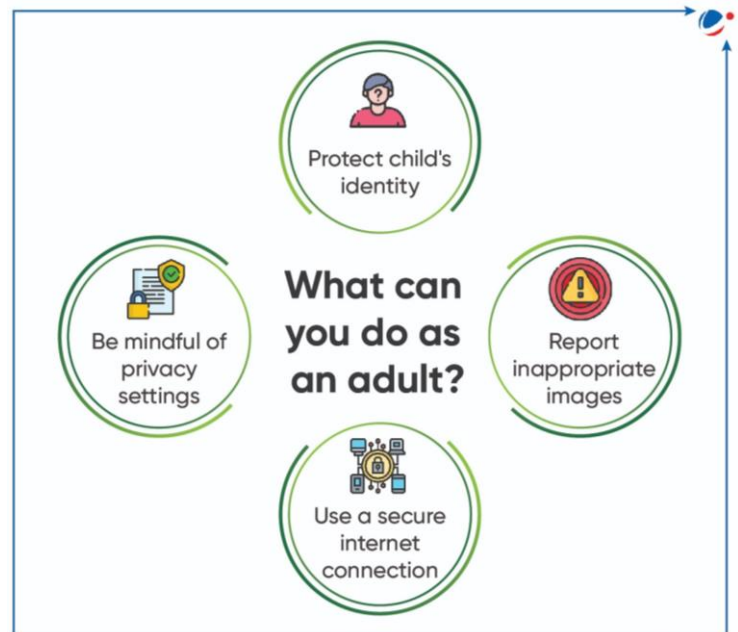
6.9. CHILDREN'S PROLONGED USAGE OF SOCIAL MEDIA

Why in the news?

A recent survey has indicated that 60% of urban kids spend 3 hours daily on social media and other online platforms.

Role of different stakeholders in increasing children's access to Internet

- **Parents:** In modern society, especially in urban society where both parents are working, parents are unable to provide adequate **attention to a child**, leading to the modern phenomenon of the "**iPad kid**".
  - It describes a young **child** who is always glued to their **iPad** or other smart device.
  - Additionally, Parents expose children to social media by uploading sonogram pictures, posting about their experiences in pregnancy, uploading photos of their newborns, etc.
- **Digital companies** (like YouTube or Instagram): With the help of data mining and analysis, show content according to children's inclination in order to attract their attention.
  - Stimuli from the screen like color, sound, and stories change superfast which can be sensory overload releasing **hormones of happiness in children**.
- **Schools:** The pandemic accelerated the transition to digital learning platforms without creating awareness about negative impacts.

- o Parents also feel pressure to provide the technological device as most of the work given after the pandemic is done online.
- **Children:** The digital world helps in escape from real-life challenges and stressors and get attracted.
  - o There is pressure from peers to use the latest technology and latest games and applications.
- **Government:** Lack of separate regulation for adults and children.

Stakeholders and their concerns

Government and public authorities: about enacting laws to protect against online abuse

Parents and caregivers: about protecting their children from online dangers

Schools: about digital literacy.

Private sector: about creating a safe platform for children.

Children: about their right to use of internet.
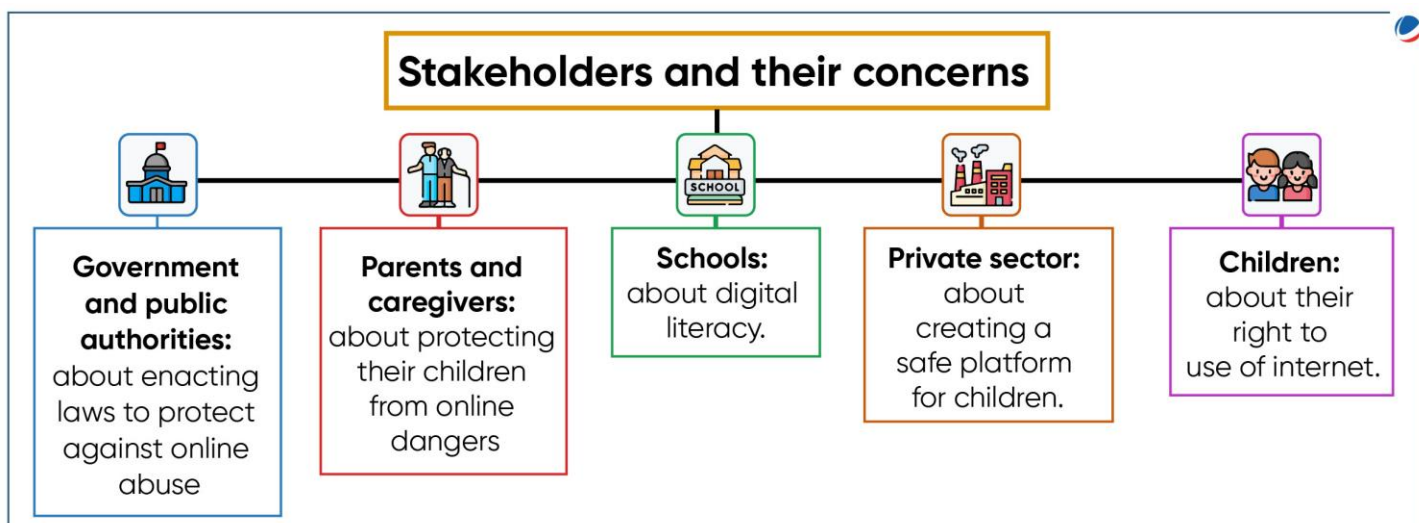
Positive and Negative Effects of social media on Children

Positive	Negative
• **Cognitive Skills:** Several social media applications can help in learning skills like reading, writing, counting etc. through the games. • **Universal Values**: Can teach children to respect others' points of view and start paying more attention to universal morals and values as they interact with people from all over the world. • **Social Skills:** Social media provides a great amount of easiness in communicating and interacting with different people. • **Increased Access to Information:** Social media can provide a wealth of information on various topics. • **Creativity:** Children express their creativity, share their ideas, and showcase their talents through various mediums such as art, writing, or video content.	• **Cyberbullying and Online Harassment:** Children may become victims of bullying, harassment, or exclusion on social media platforms, which can lead to emotional distress, anxiety, and even depression. • **Fake news:** Social media is an easy and potential platform to spread fake, artificial, embarrassing, and hostile information about others. • **Defective social relationship:** Children can get stressed while making face-to-face contact with the people around and become addicted to social media to communicate with others. • **Distorted Senescence of reality:** Children have limited capabilities in distinguishing online reality from actual reality. • **Facebook Depression:** Children can become afraid of not having enough likes and losing the perceived online support. • **Excessive Screen Time:** It can lead to reduced physical activity, poor sleep patterns, and other health-related issues.

Way forward

- **Parental controls:** Parents can opt for parental control settings for internet usage. For example, restricting or allowing certain websites to be viewed on the Internet.
- **Empowering children:** Empowerment techniques include teaching them about legal boundaries in age-appropriate language, as well as discussing their communities' cultural, moral, and ethical norms and expectations.
- **Using technology:** Updating children's devices with the latest software and privacy settings so as to minimize data collection.
- **Regulation:** Governments can enact and enforce laws and regulations that safeguard children's online privacy and prevent cyberbullying.
- **Role of Internet provider:** They can prevent and respond to child sexual exploitation and abuse online by Child-centred features and functions, effective reporting and feedback mechanisms, etc.
- **Schools:** They can educate students on the safe and effective use of the Internet.

- **Encouraging Physical Activities**: Initiatives like "Fit India Movement" should be promoted to encourage physical activity and inculcate a sense of discipline and teamwork in children.
- **The International Telecommunication Union (ITU) Guideline on Child Online Protection (2020):** They can be adapted and used by different countries and stakeholders in a way that is consistent with national and local customs and laws.
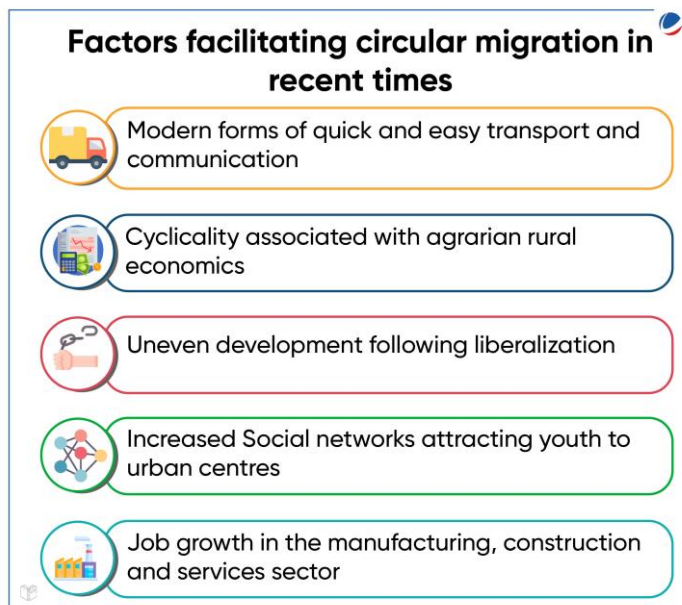
6.10. CIRCULAR MIGRATION

Why in the news?

According to several experts, internal migration in India has almost always been circular, with a seasonal flow of migrants from rural areas to urban cities.

What is a circular migration?

- While there is no **standard definition of circular migration,** it generally refers to the phenomenon of **repeated migration experiences involving more than one emigration and return**.
  - It means that **instead of migrating permanently or temporarily** (moving for a period of time to complete any contract-based labor) to another location, people move when work is available.
- It is a phenomenon mostly **among low-income groups who migrate to avail of seasonally available jobs** in another country, city, place, etc.

Factors facilitating circular migration in recent times
- Modern forms of quick and easy transport and communication
- Cyclicality associated with agrarian rural economics
- Uneven development following liberalization
- Increased Social networks attracting youth to urban centres
- Job growth in the manufacturing, construction and services sector

Benefits of circular migration

- **Balances the needs of the development of states or cities** and similarly the economic development of individuals.
- **Reduces brain drain** by facilitating demand-based internal migration and encourages the transfer of skills and know-how ("brain circulation").
- **Address labor market shortages,** while minimizing permanent population growth.
- **Reduces risk of income instability** by spreading it between village and city income opportunities.
- **Reduces pressures associated with permanent immigration**, such as competition for resources, cultural challenges, illegal migration, etc.
- **Circular migrants tend to send more money home as remittances** than migrants who do not intend to return home.
- **Facilitates cultural exchange** by exposing individuals to different cultures, ideas, and practices.

Challenges with Circular Migration in India

- **Exploitation by employers:** Unhygienic and unsafe working conditions, absence of social security, violation of labour norms such as minimum wages etc.
- **Subsistence-level employment**, with limited opportunities for savings or asset creation.
- **Limited policy support from the government** due to lack of data and under-reporting of its extent.
- **Exclusion from political processes** in destination areas.
- **Driven mostly by distress and vulnerability** with the majority of the circular migrants being from disadvantaged groups and poor education backgrounds.

Measures for internal migrants in India
- **Inter-state Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979** (subsumed in the Occupational Safety, Health and the Working Conditions (OSH) Code): Provides for decent working conditions, minimum wages, grievance redressal mechanisms, protection from abuse and exploitation, enhancement of skills and social security etc. for Inter-State migrants.
- **Social security and welfare schemes:**
  - **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) and Pradhan Mantri Suraksha Bima Yojana (PMSBY):** Provide for life & disability cover due to natural or accidental death.
  - **Pradhan Mantri Shram Yogi Man Dhan Pension Scheme (PM-SYM)**: Provides for old age social security in the form of monthly pension.

- **Other issues:** Social isolation, Language barriers, Job uncertainty, anti-migrant sentiments in host states etc.

Way forward

- **Comprehensive data on circular migrant workers** can be collected at the national, and regional levels, e.g., in **Periodic Labour Force Survey** (**PLFS**).
- **Providing safety net** in the form of insurance policies at low cost, occupational safety, and skill enhancement schemes.
- **Coherence and coordination between the Center and State governments** for the regulation of labor laws, by creating an interstate migration council.
- **Formulating dedicated government policies to integrate migrant labor force** into formal economic framework.
- **Robust protection of migrant rights** to address exploitation and abuse.

6.11. GLOBAL HUNGER INDEX (GHI)

Why in the News?

Global Hunger Index (GHI) 2023 is released by **Concern Worldwide and Welt Hunger Hilfe**, Non-Government Organisations from Ireland and Germany respectively.
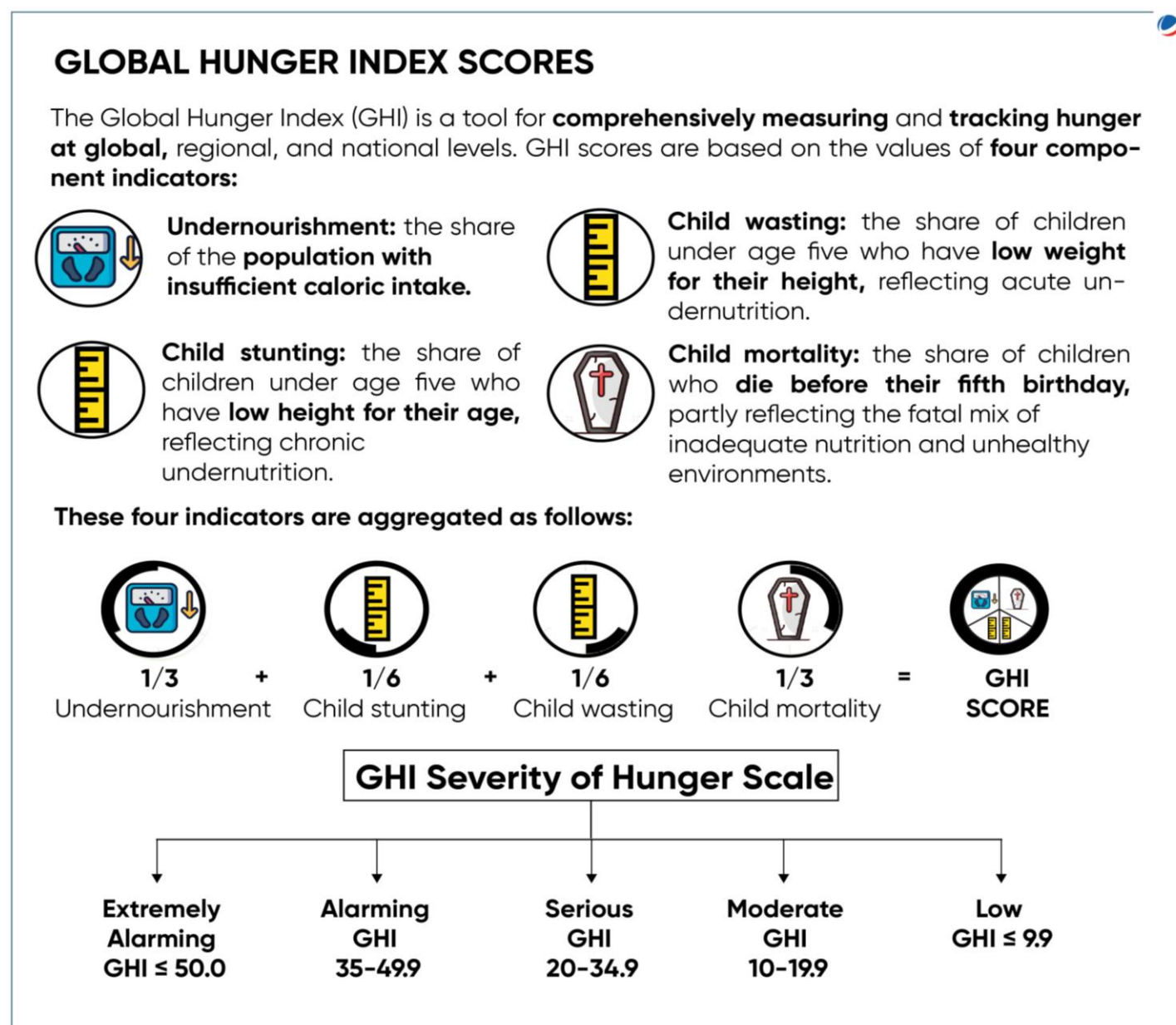
Key findings of the GHI

- **Global trends**
  - Since 2015, **little progress** has been made in reducing hunger reflecting the combined effects of several crises including the **COVID-19 pandemic**, the **Russia-Ukraine war**, the **impacts of climate change**, etc.
  - **South Asia** and **Africa South of the Sahara** are the world regions with the **highest hunger levels**, with GHI scores of 27.0 each.
- **India related findings**
  - India is **ranked 111th** among 125 countries with a **GHI score of 28.7** and is categorized as **Serious on the GHI Severity of Hunger Scale**.
    - ✓ It marks a **slight improvement in India's GHI score of 29.2** recorded in **2015**.
  - India has the **highest child-wasting rate** in the world, at **18.7%,** reflecting **acute undernutrition**.
  - Further, there was **58.1% of prevalence of anaemia** among **women aged 15-24**.

Issues raised by government of India on GHI

- **Methodological: Three out of the four indicators** used for the calculation of the index are **related to the health of Children** and cannot be representative of the entire population.
  - Child stunting, wasting and under-5 mortality are **outcomes of complex interactions of various other factors** like drinking water, sanitation, genetics, environment and utilisation of food intake apart from hunger.
- **Small sample size:** The indicator of **Proportion of the Undernourished (PoU) population** is based on an **opinion poll** conducted on a **very small sample size**.
  - The report lowers India's rank based on the estimate of the PoU population for India at 16.3%.
- **Use of data:** The government questions the use of data for child wasting from NFHS 5 instead of the Poshan Tracker.
  - Data recorded on the Poshan Tracker portal showed child wasting prevalence of 7.2% among a total of 7.24 crore under-five-year-olds whose data was captured.
    - ✓ WHO has recognized the Poshan Tracker as an exemplary platform for flawlessly collecting routine administrative data on nutrition.

Government initiatives to address hunger in India

- **National Food Security Act (NFSA), 2013:** Recognizes the right to food as a statutory right.
- **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)** launched to provide food grains free of costs **to 80 crore poor.**
- **Pradhan Mantri Matri Vandana Yojna:** Registered women were provided Rs 5000/- on the birth of their first child for wage support and nutritious food during pregnancy and post-delivery period.
- **POSHAN Abhiyan (National Nutrition Mission):** Aims to achieve improvement in key nutrition parameters for children and women.
- **POSHAN Tracker:** It is a real-time monitoring system that enables authorities to track progress and identify gaps in the supply chain of service delivery.
- **Eat Right Movement:** Aims to transform the country's food system to ensure safe, healthy and sustainable food.

Conclusion

The GHI 2023 exposes ongoing global struggles against hunger, intensified by diverse crises. India's critique of GHI's methodology underscores the challenge of accurately assessing hunger. Despite GHI imperfections, India must address its malnutrition issue. While government initiatives target nutrition, a nuanced comprehension of diverse factors is vital for effective policies combating hunger and malnutrition.

6.12. SPORTS IN INDIA

Why in the news?

In the 19th Asian Games India achieved a new milestone by clinching 107 medals, including 28 gold, 38 silver, and 41 bronze.

More on News

- India has been ranked 4th place.
- This feat surpassed India's previous best of 70 medals at the 18th Asian Games.
- **China** topped the list with 383 medals followed by **Japan**, and the **Republic of Korea**.

Factors behind Improved Performance

- **Sports Governance**: In 2011 the **Ministry of Youth Affairs and Sports** implemented the **National Sports Development Code of India.**
  o It aims to **bring transparency and accountability** to the functioning of National Sports Federations (NSFs) and **promote good governance practices** in the management of sports at the national level.

> **Sports in India**
> - Sports in India are **listed in Entry 33, List II of the constitution** and are necessarily under the domain of the federal states.
> - **Current Sports Governance Model in India**
>   o **Ministry of Youth Affairs & Sports (MYAS)** has institutions like the Sports Authority of India (SAI) and other institutions working towards promoting sports training under SAI.
>   o **Indian Olympic Association (IOA)** has State Olympic Associations (SOAs) and National and State Sports Federations (NSFs and SFs).
>   o For **non-Olympic sports** (cricket), federations like the **Board of Control for Cricket in India (BCCI)** are directly affiliated with their respective international boards.

- **Infrastructure and Training**: The **Sports Authority of India** has played a key role in improving infrastructure such as establishing stadiums in different parts of the country.
  o Efforts have been made to bring world-class coaches, sports doctors and trainers from foreign countries.
- **Funding**: Budget allocation for Sports has increased over the year. For instance, Budget allocation for the Ministry of Youth Affairs and Sports has been increased by 11% in FY2023-24 in comparison to FY 2022-23.
- **Role of States**: States like Uttar Pradesh have launched initiatives like the One District, One Sport (ODOS) scheme.
- **Role of Corporates**: Corporations have utilised their **Corporate Social Responsibility (CSR)** for the promotion of sports.
- **Community-Based Sports**: They organize leagues, fitness classes, and community events centred around sports and physical activities.
- **Recognition in Society**: Earlier, only sportspersons from a few sports received recognition. But in recent times athletes from different fields have been recognised in society.
- **Hosting International Events**: In the recent past, there has also been **greater international competitive exposure to Indian athletes** with several world-class tournaments hosted at home like the Indian Open Badminton tournament.

Importance of Sports
- Improve physical and mental health
- International Recognition and Soft Power
- Promote traditional culture
- Promote unity and equality
- Empower youth
- Generating revenue and employment opportunities

Challenges Faced in Promoting Sports

- **Sports hierarchy:** There is a **lack of a hierarchy in sports** from the grassroots level to the national level.
- **Poor Governance:** The current model of governance of Indian sports clearly lacks **accountability** and **transparency**, which creates an environment that is conducive to wide-scale corruption.
  o **Sports federations** are often dominated by political associates with little expertise in sports. These are alleged with nepotism, fiefdom etc.
- **Changing nature of society and social activity**: Increasing urbanisation and digitisation have reduced the avenues and interest of children to engage in physical activities and consequently in sports.
- **Lack of remuneration and job security:** Parents **hesitate to choose sports as a profession** for their children and **focus more on academic excellence**.

- **Poor Funding:** In India, approx. Rs 24 per capita/ per year for sports which is much less in comparison to the European Union's Rs 8,000 per capita sports budget.
- **Psychological Support:** In India, training is solely sports-oriented with **little focus on the psychological robustness** of the athletes.
- **Other**: Regionalism in selection and facilities (States like Haryana and Punjab have better facilities), sexual harassment, Too much importance to Cricket etc.

Measures Required to Further Improve Sports Performance

- **Sports education as part of the National Curriculum Framework (NCF):** To achieve this, it is important to have the sports curriculum framework drafted, piloted & tested in a few schools, ratified accordingly with suggestions from industry experts and implemented nationwide.
- **Oversight:** Sports associations should be established at block and district levels supervising respective sports academies at that level.

> **Initiatives Taken to Promote Sports**
> - **TOPS (Target Olympic Podium Scheme)**: It has been instrumental in ensuring that a "core group of athletes" have all the necessary personalised support in terms of foreign exposure, hiring of specific coaches, training and competition abroad.
>   - It is supported by the National Sports Development Fund (NSDF).
> - **Khelo India Scheme:** The Scheme's primary focus is to create a national-level platform for athletes to showcase their talent and to identify them for further grooming and financial support.
>   - Under this, Khelo India State Centres of Excellence are being developed in all states.
> - **Fit India Movement:** Promotes physical fitness and sports culture among Indians. It encourages people of all age groups to adopt an active and healthy lifestyle.
> - **National Sports University**: India's first dedicated National Sports University has been set up in Manipur.

- **Sports professionals in sports administration:** This would ensure informed decisions are made, resulting in more effective and knowledge-based policies.
- **Bridging Regional disparity**: All the States and UTs must be given adequate funds for infrastructure and other facilities. Reduce rural-urban and rich-poor divide etc.
- **Funding:** There is a need to **increase budgetary allocation** for sports development along with **encouraging private participation to develop world-class infrastructure**, training equipment, organising conditioning camps and overseas exposure.
- **Employment:** Government enterprises including PSUs should be directed to **employ sportspersons on a certain percentage of vacancies.** Besides, the private sector should be incentivized such as tax rebates to employ sportspersons.
- **Recognition and changing mindset**: Increased coverage of all sports on TV and other mediums.

Scan the QR code to know more about **Sports in India.**

Weekly Focus #66: Sports in India- Olympics and beyond

6.13. NEWS IN SHORTS

6.13.1. DRAFT GUIDELINES FOR SCHOOLS TO PREVENT SUICIDE

- Ministry of Education (MoE) released draft guidelines titled **UMMEED (Understand, Motivate, Manage, Empathise, Empower, Develop)** serve as "**directions to schools for enhancing sensitivity, understanding, and providing support** in case of reported self-harm".

- **'Every Child Matters'** is the underlying belief in developing the guidelines for prevention of suicide.
- Suicide is a complex **interplay of personal and social factors**, which is rarely caused by a single circumstance or event.
  - **Mental Healthcare Act 2017, decriminalized suicide** in India.

- **Factors influencing suicides**
  - **Individual**: **Adverse childhood experiences** (abuse, violence, etc.); **Addiction to social media**, substance use, etc.; internal **pressure** to **perform well** in life etc.
  - **School**: **Lack of positive relationships** with peers/teachers, bullying, humiliation, isolation, etc.; Absence of school-family connect; **Academic pressure** from school etc.
  - **Family**: Conflict and instability (divorce, financial hardships etc.); Parental neglect/ abuse; Pressuring students into preparing for competitive examinations etc.
  - **Community and Society**: Stigma associated with mental illness; Sensationalized and insensitive reporting of suicide cases in media etc.

Actions towards prevention of suicide

Setting up of School Wellness Team under leadership of School Principal.

Building capacity for different stakeholders

Promoting Positive School Environment by integrating mental well-being in school functioning

Responding immediately and supporting students at risk.
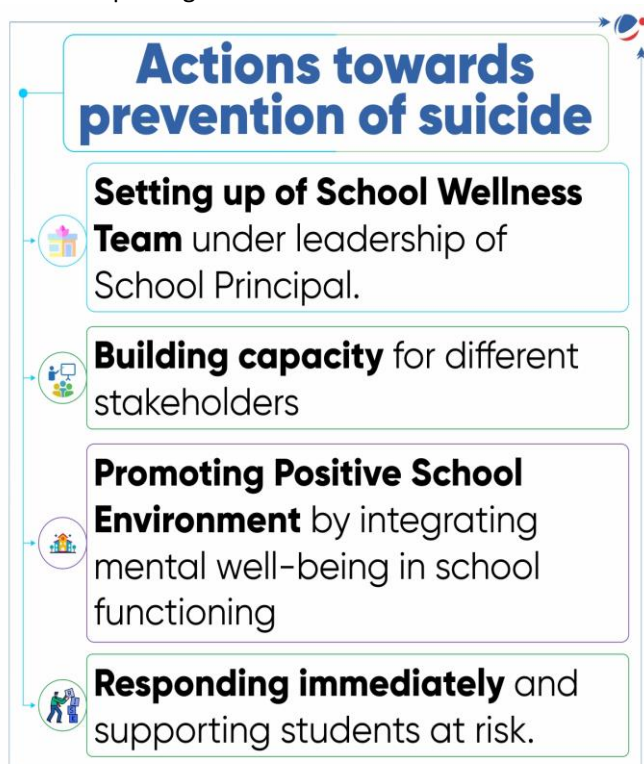
6.13.2. SHRESHTA SCHEME

- Till now in FY 2023-24 the **expenditure** under **SHRESHTA** (Residential Education for Students in High Schools in Targeted Areas) is **Rs. 14.94 cr.**
- **Ministry:** Ministry for Social Justice and Empowerment
- **Type: Central Sector** Scheme
- **Objective:** To **fill the gap in service-deprived SCs** (Scheduled Castes) **dominant areas,** provide an environment for **socio-economic upliftment of SCs, etc.**
- **Benefits: High quality free residential education** to **poor** and **meritorious scheduled caste** (SC) students from **class 9th to class 12th.**

- **Implementing agency**
  - **Mode 1:** District Administration
  - **Mode 2:** Voluntary organisation (VO)/ Non-Government Organisation (NGO)/ other organisations.

6.13.3. IDENTIFICATION AND MANAGEMENT OF MALNUTRITION IN CHILDREN

- Ministry of Women and Child Development (WCD) launched the protocol in collaboration with the **Ministry of Health and Family Welfare** and the **Ministry of AYUSH** for addressing Malnutrition among Children.
- The protocol provides detailed **guidelines for the identification** and **management** of **malnourished children** at the **Anganwadi level.**
  - The identification of malnourished children and their treatment is an integral aspect o**f Mission Poshan 2.0**
- **Key Components of the Protocol:**
  - **Growth monitoring, appetite testing, nutritional management** of malnourished children.
    - ✓ **In Appetite Test** children offered food according to body weight. If the child does not consume three-fourths of the food, they are transferred to a **Nutritional Rehabilitation Centre (NRC).**
  - **Follow-up care of children** who manage to achieve requisite growth parameters after intervention.
  - **'Buddy mother'** initiative where the mother of a healthy baby guides the mother of a malnourished child at an Angandwadi centre every week.
    - ✓ The 'Buddy mother' concept was first used in Assam.
  - **Encourages diet diversity**, and has recommended **micronutrients in food.**
- There are **7.7 per cent of Children under 5 years who are severely wasted**.

6.13.4. SPECS2030 INITIATIVE

- **It's a WHO initiative** to address global vision impairment and blindness. It aims to ensure access to eye care and treatment for all.
- **Purpose**: Reporting of the number of people who receive spectacles.
- **India's Role**: In India, where over 100 million people may lack access to eye care and glasses, Specs 2030 will bring positive change.
- **Myopia**-Near sightedness-can be corrected by concave lens.

- **Hypermetropia**-Farsightedness-can be corrected by convex lens.
- **Presbyopia**-the gradual loss of the eyes' ability to focus on nearby objects, bifocal lens is prescribed.

6.13.5. HAKKI PIKKI TRIBE

- **About Hakki Pikki Tribe**
  - They are a **semi-nomadic tribal group** from Karnataka.
  - The community is known as the **'bird catcher,'** which is their traditional occupation.
    - ✓ The word '**Hakki**' stands for **'bird'** and '**Pikki**' stands for the verb 'to **catch**'.
  - After their trade of bird hunting was outlawed, they were **rehabilitated in the 1970s.**
  - They are said to be **a matriarchal group**.
  - They communicate in **'Vaagri'**.
    - ✓ UNESCO has listed 'Vaagri' as **one of the endangered languages.**
    - ✓ They are renowned for **their indigenous medicines.**

You can scan this QR code to practice the Smart Quiz of Social Issues & Social Schemes at our open test online platform for testing your understanding and recalling of the concepts.

7. SCIENCE AND TECHNOLOGY

7.1. NOBEL PRIZE IN PHYSICS 2023

Prize awarded for: Experimental methods that generate **attosecond pulses of light** for the study of **electron dynamics in matter.**

Awardees: Pierre Agostini, Ferenc Krausz, and Anne L'Huillier.
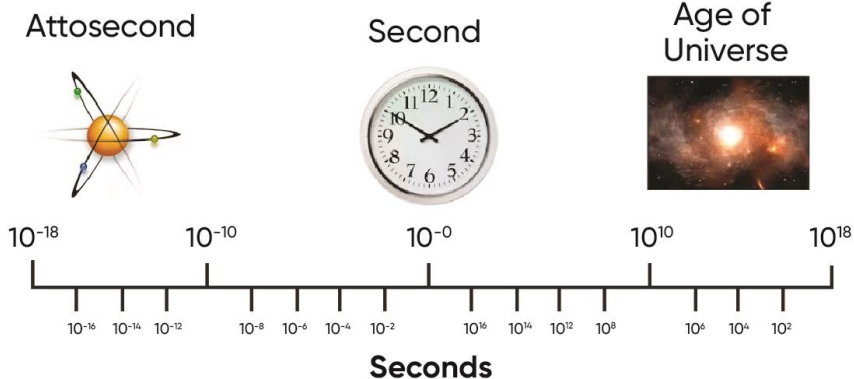
About Electron Dynamics

- **Electron dynamics**, in simple terms, refers to the behaviour **and movement** of electrons within **atoms and molecules.**
- **An atom** is composed of **a nucleus of protons and neutrons**, and **electrons** which are **negatively charged** travel around this nucleus.
- **Atoms' natural time scale** is incredibly short. **Atoms can move and turn** in millionths of a billionth of a second, known as **femtoseconds** (Femtosecond is equal to 10^{-15} second).
- **Electrons** move or change rapidly, in the **magnitude of attosecond**, which makes them difficult to study.
  - For a long time, **femtosecond was seen as the shortest achievable duration** of the light pulses. Thus, making the study of electrons very difficult.

How did the discovery overcome this challenge?

Generation of attosecond pulses of light (Anne L'Huillier)

- **In 1987, Anne L'Huillier** and her colleagues transmitted an **Infrared laser beam** through a **noble gas** and it produced multiple overtones.
  - When the peak of one overtone **merges with the peak of another**, they undergo **constructive interference** and produce a **larger peak.**
  - Similarly when the peak of one overtone merges with the **trough of another**, however, they undergo destructive interference, **'cancelling' themselves out.**
- **By combining a large number of overtones** in this way, physicists fine-tune a setup to produce **light pulses for a few hundred attoseconds**.

Attosecond and attosecond science

Attosecond — Second — Age of Universe

10^{-18} 10^{-10} 10^{-0} 10^{10} 10^{18}

10^{-16} 10^{-14} 10^{-12} 10^{-8} 10^{-6} 10^{-4} 10^{-2} 10^{16} 10^{14} 10^{12} 10^{8} 10^{6} 10^{4} 10^{2}

Seconds

- An attosecond is equivalent to **1×10^{-18} of a second.**
- **Attosecond science** deals with the production of **extremely short light pulses** and using them to **study superfast processes.**

Overtones

- They are **waves of light whose wavelength was an integer fraction** of the beam.
- **For example,** if the beam had a wavelength of 100, the overtones would have wavelengths of 10, 25, 50, etc.

GUITAR STRING

Tone
Overtone 1
Overtone 2
Overtone 3

Overtones have several cycles for each cycle in the fundamental tone. Overtones work the same way in light waves.
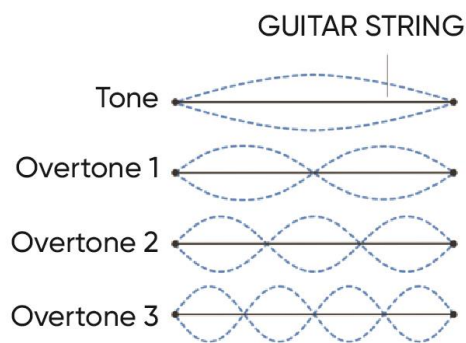
Production of pulse train (Pierre Agostini and Ferenc Krausz)

- **In 2001, Pierre Agostini and Ferenc Krausz** were able to produce **verified attosecond pulses in a 'train'**: a pulse followed by a gap, followed by a pulse, and so forth.
  - By 2017, experts were able to produce a **pulse as short as 43 attoseconds.**

Resultantly, these experiments produced **pulses of light** that were measured in **attoseconds. These pulses can be used to provide images** of the processes inside atoms and molecules (including electron dynamics).

Applications of attosecond physics

- **Medical diagnostics**: To check for the presence of **certain molecules.**
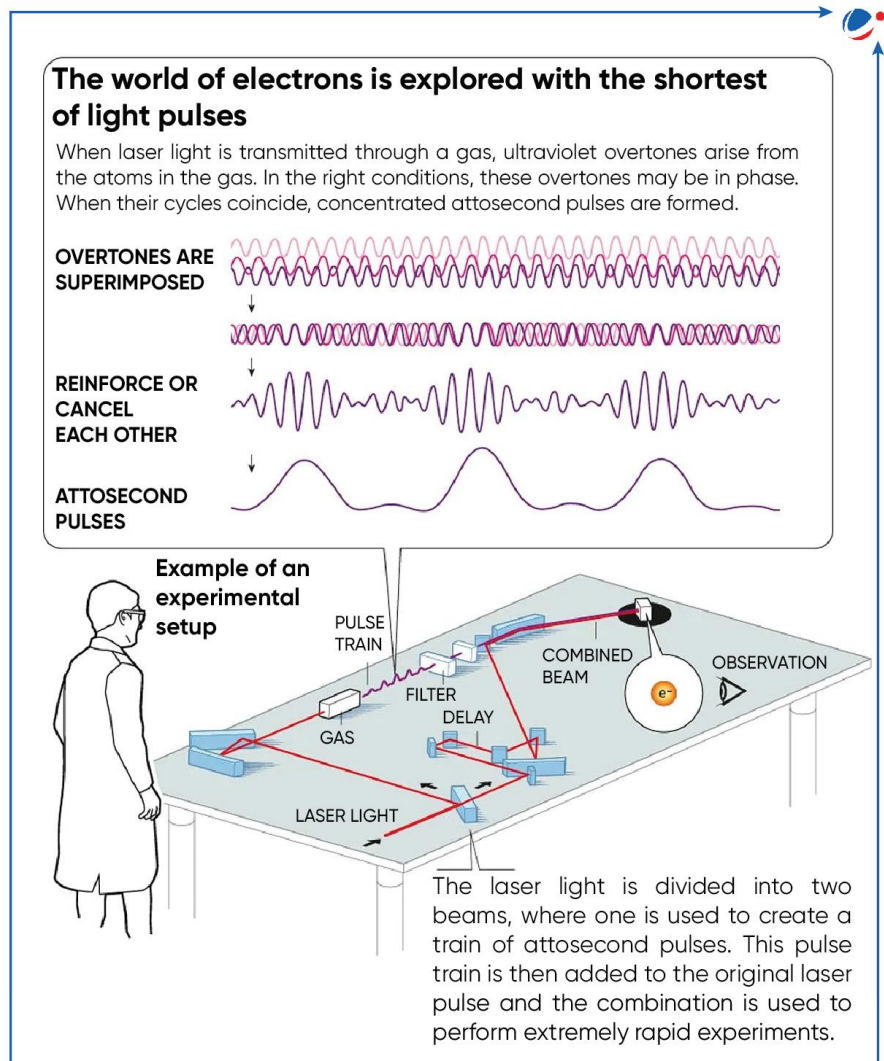 - For instance, **study of molecular-level changes in blood**, to identify diseases.
- **Development of Ultrafast Electronics**: To develop faster electronic devices, and better telecommunications, imaging, and spectroscopy.
- **Precision Control of Electrons:** To explore short-lived atomic and molecular processes in fields like materials science, electronics, and catalysis.
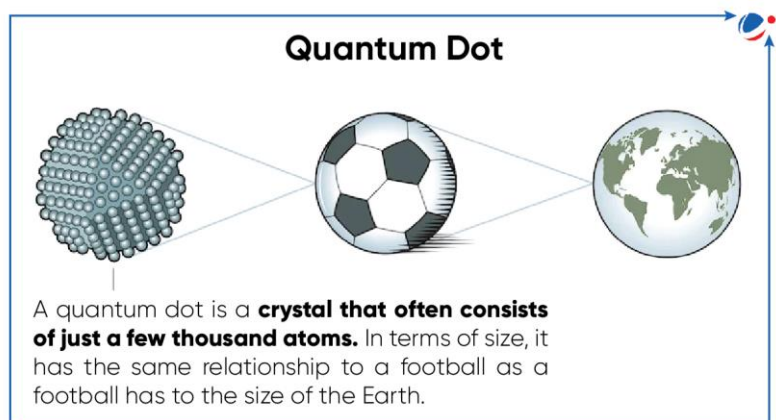

The world of electrons is explored with the shortest of light pulses

When laser light is transmitted through a gas, ultraviolet overtones arise from the atoms in the gas. In the right conditions, these overtones may be in phase. When their cycles coincide, concentrated attosecond pulses are formed.

OVERTONES ARE SUPERIMPOSED

REINFORCE OR CANCEL EACH OTHER

ATTOSECOND PULSES

Example of an experimental setup

PULSE TRAIN
COMBINED BEAM
OBSERVATION
FILTER
DELAY
GAS
LASER LIGHT

The laser light is divided into two beams, where one is used to create a train of attosecond pulses. This pulse train is then added to the original laser pulse and the combination is used to perform extremely rapid experiments.

7.2. NOBEL PRIZE IN CHEMISTRY 2023

Prize awarded for: The discovery and development of **quantum dots.**

Awardees: The prize was given to **Moungi G. Bawendi, Louis E. Brus and Aleksey Yekimov.**

About Quantum dots (QDs)

- Quantum dots are **man-made semiconductor particles**, whose sizes are normally not more than **10 nanometers.**
  - They are composed of different types of atoms, such **as cadmium, selenium etc.**
  - Similar behaviour is observed in some metals, therefore, in some cases, it may be acceptable to speak about **metal quantum dots.**
  - QDs are also denoted **as artificial atoms or zero-dimensional electron systems.**
- **Properties of QDs:** They exhibit **quantum confinement**, which leads to many unique optical and transport properties.

Quantum Dot

A quantum dot is a **crystal that often consists of just a few thousand atoms.** In terms of size, it has the same relationship to a football as a football has to the size of the Earth.

- o **Fluorescence:** When excited by an external electric or light source, QDs emit photons of a specific wavelength.
- o **Tunable Emission: QDs can emit light of different colours depending on their size**. This property is called size-tunable emission and is widely used in display technologies and bioimaging.
- o **Photostability:** QDs are less prone to **photobleaching** (loss of fluorescence over time) compared to traditional organic dyes. This makes them suitable for **long-term imaging applications.**
- o **Material Variety:** QDs can be made from different semiconductor materials, such as **cadmium selenide (CdSe), lead sulfide (PbS), and indium arsenide (InAs)**, each with its own unique properties.
- o **Biocompatibility:** Some quantum dots are **biocompatible**, which means they can be used in **biological applications** without causing harm to **living cells.** This property is advantageous in **bioimaging and drug delivery.**

About Nobel Winning Research

- In the early 1980s, **Alexei Ekimov** succeeded in creating **size-dependent quantum effects in coloured glass.**
  - o He demonstrated that the **particle size affected the colour of the glass** via **quantum effects.**
- A few years later, **Louis Brus** was the first scientist in the world to prove size-dependent quantum effects in **particles floating freely in a fluid.**
- In 1993, **Moungi Bawendi** developed a technique to make quantum dots of well-defined sizes and with high optical quality.

Applications of Quantum Dots

The technology can be applied in a multitude of domains, including the following:

- **Electronics:** Television screens based on **QLED technology, and LED lamps.**

- **Advanced surgery**: In cancer treatment for **targeted drug delivery, nanomedicine,** biochemists and doctors use them to **map biological tissue etc.**
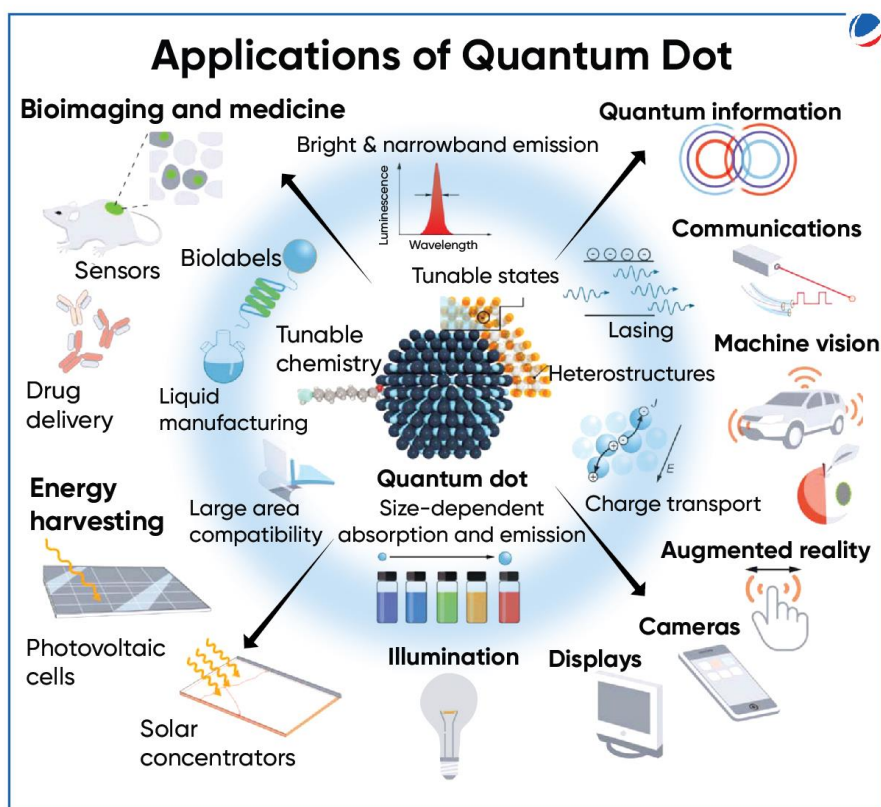

Know the term
- ➤ **Quantum confinement:** It is a phenomenon in the world of **quantum mechanics** that occurs when particles, **typically electrons,** are confined to a very small space, such as in **nanoscale structures.**
  - o It means that when particles are **squeezed into tiny regions,** they start to exhibit **unique behaviours** due to their quantum

Quantum effects arise when particles shrink

When particles are just a few nanometres in diameter, the **space available to electrons shrinks**. This **affects the particle's optical properties.**

ELECTRON WAVE
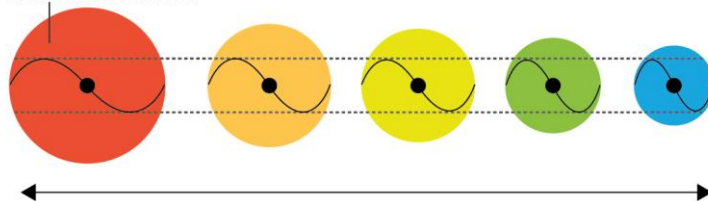
Larger nanoparticle, **more space for** the electron wave **Smaller** nanoparticle, **less space for** the electron wave

Applications of Quantum Dot

- **Anti-counterfeit measure:** Used as security markers on currency and documents.
- **Other potential uses**: In quantum computing, thinner solar cells, flexible electronics, tiny sensors, and encrypted quantum communication etc.

7.3. NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE 2023

Prize awarded for: Discoveries concerning nucleoside base modifications that enabled the development of **effective mRNA vaccines against COVID-19.**

Awardees: The prize was given to **Katalin Karikó** and **Drew Weissman**.
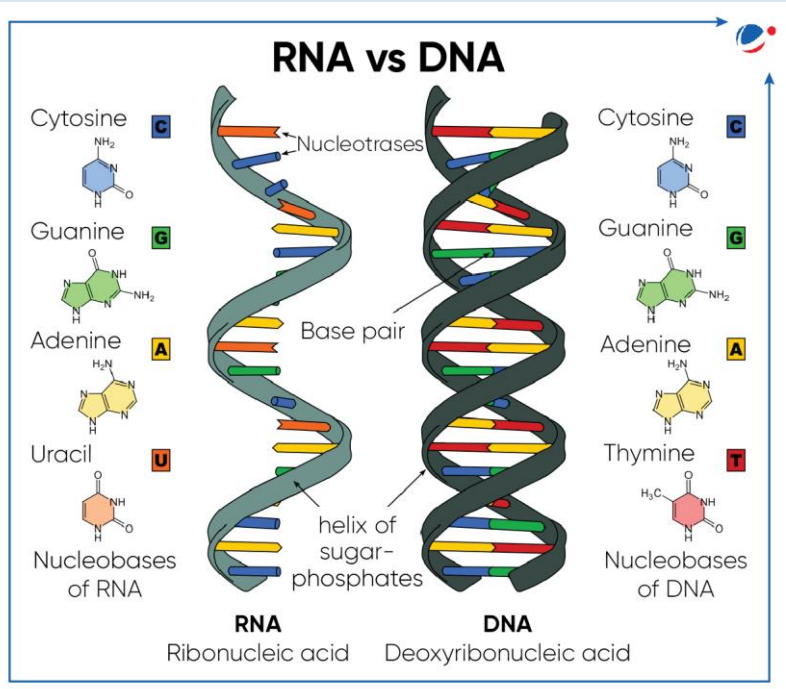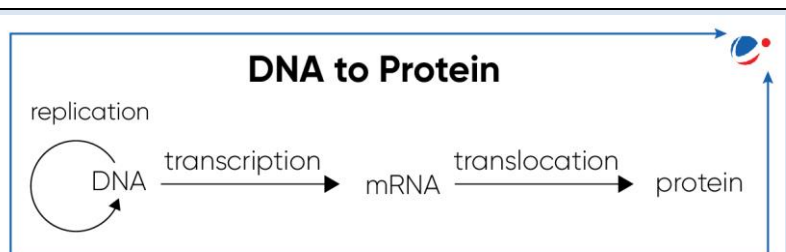
About Vaccination and COVID-19

- A Vaccination works by stimulating the formation of an **immune response to a particular pathogen.**
- Vaccines based on **killed or weakened viruses** have long been available such as vaccines against **polio, measles, and yellow fever.**
- As technology evolved, instead of the whole virus, **just a part of the viral genetic code**, began to be introduced through vaccines (DNA-based vaccines).
- However, the **large-scale development** of DNA vaccines requires **cell culture** (growing of cells under controlled conditions) and **takes time.**
  o When you get a DNA vaccine, your **cells translate the gene particle from the virus or bacteria into a protein that your body recognizes as a foreign element**. Your immune system then creates antibodies that fight these particular proteins.
- During the **COVID-19 outbreak,** time was of the essence in finding a weapon against the deadly and fast-spreading virus. This is where **mRNA technology** proved crucial as it requires significantly less time.

About mRNA (messenger Ribonucleic Acid)
- **DNA stores all the genetic information** in our bodies; **mRNA carries that genetic information**, similar to a blueprint or set of instructions, that is then **translated into proteins.**
  o **RNA contains 4 nucleoside bases**, abbreviated A, U, G, and C, corresponding to A, T, G, and C in DNA, the letters of the genetic code.

Working of an mRNA vaccine
- mRNA vaccines use mRNA created in a laboratory to teach **our cells how to make a protein**-or even just a piece of a protein that **triggers an immune response** inside our bodies.
  o **In vitro transcribed mRNA or synthetic mRNA** is the synthetic form of mRNA that is used in mRNA-based vaccines. (It is created outside of a living cell.)
- This immune response, which **produces antibodies**, is what helps protect us from getting sick immediately. Also, the body remembers the associated pathogens, thus creating immunity for the future.

DNA to Protein

replication

DNA →(transcription)→ mRNA →(translocation)→ protein

RNA vs DNA

Cytosine C — Nucleotrases — Cytosine C

Guanine G — Base pair — Guanine G

Adenine A — Adenine A

Uracil U — helix of sugar-phosphates — Thymine T

Nucleobases of RNA — Nucleobases of DNA

RNA Ribonucleic acid — **DNA** Deoxyribonucleic acid

The mRNA vaccines provided a promise of faster vaccine development but posed significant challenges. These challenges were addressed in the work of Nobel Laurates.

Work of Nobel laureates

- **Understanding the concerns with mRNA vaccines**
  - **Issues with In vitro transcribed mRNA vaccines:**
    - ✓ **Instability**: They were considered **unstable** and **challenging to deliver**, requiring the **development of sophisticated delivery systems**.
    - ✓ **Inflammatory reactions**: The cells **recognize in vitro transcribed mRNA as a foreign substance,** which leads to their activation and the release of **inflammatory signaling molecules.**
    - ✓ **Inefficient Protein Production** in Cells and Tissues.
  - They questioned why this **synthetic mRNA was considered to be a foreign substance** while mRNA from mammalian cells did not give rise to the same reaction.
    - ✓ **Reason for a different reaction:** The mRNA from cells (mammalian mRNA) undergoes a chemical change after entering the body, whereas the synthetic mRNA remains unchanged.
  - This led them to realize **some critical properties** must distinguish **synthetic mRNA** from **mammalian cells mRNA.**
- **Breakthrough by them**
  - **Understanding**: Karikó and Weissman knew that **nucleoside bases in RNA from mammalian cells are frequently chemically modified**.
  - **Hypothesis**: They hypothesised that the **absence of altered bases** in the in vitro transcribed RNA could explain the **unwanted inflammatory reaction**.
  - **Testing**: On testing, they produced different variants of mRNA, each with unique **chemical alterations in their bases**, which they delivered to the cells.
  - **Result**: The results were significant as the **inflammatory response was almost abolished** when base modifications were included in the mRNA.
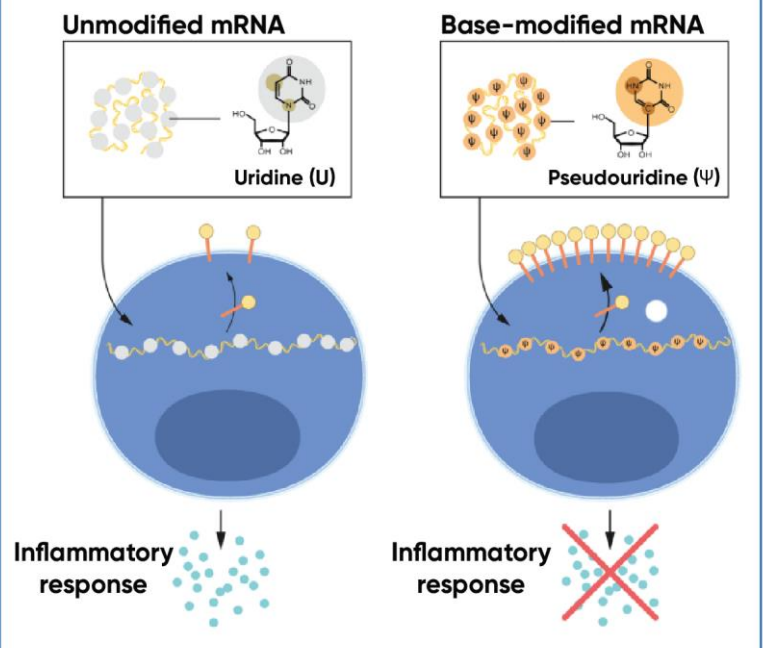
Applications of the discovery

- **Covid-19 Vaccination**: With the onset of the **Covid-19 pandemic**, base-modified mRNA vaccines encoding the **SARS-CoV-2 surface protein** were developed at an unprecedented pace.
  - E.g., mRNA vaccines developed by **Pfizer/ BioNTech and Moderna.**
- **Rapid vaccine development: Impressive flexibility** and **speed** with which mRNA vaccines can be developed pave the way for using the new platform for vaccines against other infectious diseases.
- **Broad applicability**: In the future, the technology may also be used to **deliver therapeutic proteins and treat some cancer types.**
- **Global health impact**: mRNA vaccines can play a role in **improving global health** by addressing a range of infectious diseases and potentially reducing the **severity and spread of epidemics and pandemics.**

Know the term

- **Mammalian cells:** They are **eukaryotic cells** that are derived from the tissue of a mammal.
  - Eukaryotic cells are cells that **contain a nucleus and organelles.** They are enclosed by a **plasma membrane.**
  - **Fungi, Plants, Animals** etc have eukaryotic cells .

Base modified in-vitro transcribed mRNA

Unmodified mRNA — Uridine (U)

Base-modified mRNA — Pseudouridine (Ψ)

Inflammatory response

Inflammatory response

7.4. NET NEUTRALITY

Why in the News?

Around 128 Start-ups have written to **Telecom Regulatory Authority of India (TRAI)** opposing **Telecom Service Providers (TSPs)** push for **regulating Over the Top (OTT) services**.

More about the News

- The TSPs are of the view that **OTT application services like Netflix, Amazon Prime Video not only consume a significant bandwidth in their network, the** other **OTT communication services like Whatsapp, facebook also causes significant revenue loss to them.**
- Hence the Indian TSPs are demanding a **'network usage fee'** from Big Tech platforms and OTT's for using their infrastructure.

Over The Top (OTT) Service and Relationship between TSPs and OTTs

- OTTs can **be content, a service or an application** that is **provided to the end user over the public Internet.** They are classified into two groups
  - **OTT communications services** – These services provide realtime person to person telecommunication services over the internet e.g. Whatsapp, Telegram etc...
  - **OTT application services** – include all other OTT services such as media services, trade and commerce services, cloud services, social media e.g. Facebook, Amazon, Netflix etc.
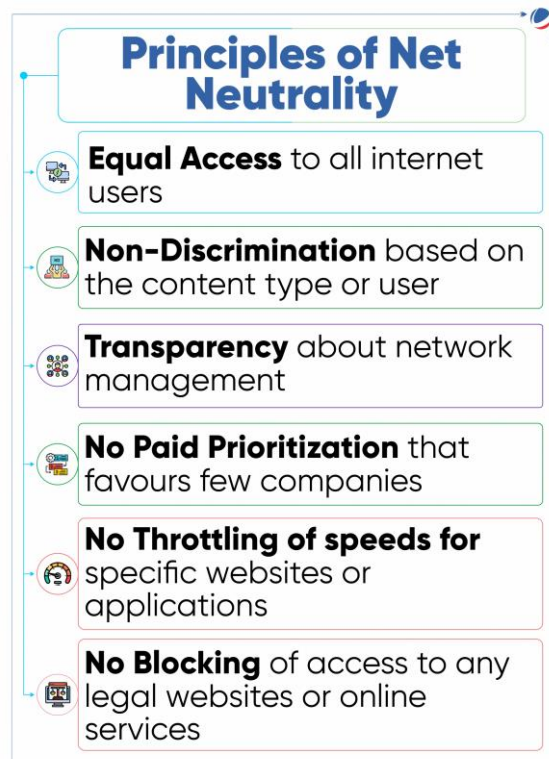
Relationship between TSPs and OTTs

- While the **TSPs seem to claim their right to ask for a fee for their investments**, this is also **seen as a move against net neutrality** in a new form.
- **Capital Cost incurred by the TSPs is high** as they spend millions in setting up the necessary infrastructure for the services to the consumers of which OTTs are a part.
- **Impact on revenue to the TSPs** as some OTTs provide the same services they offer like calls and messaging services over the internet they provide and act as their competitors.
- **Regulatory purview over the TSPs is high** and they are bound by rules of the Government and TRAI, whereas the OTTs do not have such direct obligations.
- The **demand for the transmission capacity provided by the TSPs is boosted by the OTTs** content leading to **surge in net data consumption** favouring the TSPs.

What is Net Neutrality?

- Net neutrality is the concept of an **open, equal internet for everyone, regardless of device, application or platform** used and content consumed.
- Proponents of the **idea believe all corporations, including internet service providers (ISPs), should treat internet data and users equally**.
  - They should not restrict access, slow down access speeds or block content for some users to serve their own interests.
- The issue began with **Facebook's launch of "Free Basics" in 2013** which was designed **to provide** a set of websites and **content freely available only to the users** and subscribers **of the Reliance network** in India.
- The **TRAI** released a new framework called the **'Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016'**, which **barred telecom service providers from charging differential rates** and ensured net neutrality.

Implications of disregarding Net Neutrality

- **Induces internet discrimination:** The Internet Service Providers **(ISP) can favour and boost a specific content**, application, product to the consumers creating discrimination
- **Discourages Innovation:** The **level playing field for start-ups and small companies is removed** discouraging them to innovate on new ideas, strengthening the hands of Big tech companies
- **Privacy Concerns:** ISPs could exploit their power to **collect and monetize user data** without their consent.
- **Limits consumer freedom**: by letting ISPs dictate what is accessible or affordable to the consumers, their **freedom to choose is hindered**.

Principles of Net Neutrality

- **Equal Access** to all internet users
- **Non-Discrimination** based on the content type or user
- **Transparency** about network management
- **No Paid Prioritization** that favours few companies
- **No Throttling of speeds for** specific websites or applications
- **No Blocking** of access to any legal websites or online services

- **Widens Digital Divide:** It exacerbates the digital divide, with marginalized communities having even less access to essential online resources, educational tools, and job opportunities

Way Forward

- Incorporation of **A K Bhargava Committee recommendations**:
  - o Incorporation of a clause in the license conditions of TSP/ISPs that will **require the licensee to adhere to the principles and conditions of Net Neutrality.**
  - o Till such time as an appropriate legal framework is enacted with the principles of Net Neutrality, the **interim provisions enforceable through licensing** conditions as suggested by the Committee may be the way forward
- **Create a level playing field through regulatory framework**, which is fair and equal for both the players without affecting the end consumers.
- **Define OTTs and their services** in order to bring them under an ambit of regulation in terms of their content, service etc.
- **Protect the welfare of the customers** and ensure that there is no rise in cost either directly or indirectly which is transferred to the customers.
- **Proactive Monitoring:** TRAI should proactively monitor TSPs' behaviour to detect and address any violations towards net neutrality promptly.

7.5. UNLOCKING INDIA'S SPACETECH POTENTIAL

Why in the news?

A report titled "**Exploring Opportunities for Indian Downstream Spacetech**" was jointly launched by **Indian Space Association (ISpA), Nasscom, Deloitte India** at Indian Space Conclave 2023.

The paradigm shift in India's Space journey

- **The Start:** Indian Space journey started with the formation of INCOSPAR (Indian National Committee for Space Research) in 1962, ISRO (Indian Space Research Organization) in 1969 and the Department of Space (DoS) in 1972.
- **Government was the only player:** Since then and up till the 2010s, the space sector was effectively a domain of the Government with negligible private sector participation.

India's space economy

Currently, the Indian space economy is valued at around $8.4 billion	2% share in the global space economy (with a vision to increase it to 10%)	It accounts for about 0.25% of India's GDP	More than 190 registered space start-ups as of 2023

Table 1: Space Value Chain[2]

Upstream Segment	Downstream Segment	Auxiliary Segment
This segment refers to all activities, products and infrastructure ensuring the development, testing, launching, operations and monitoring (including space situational awareness) of space assets. E.g. Space Tourism, Space mining etc.	This segment refers to all applications, services and devices relying on satellites to create business value. This includes dual-purpose services and applications that cater to strategic requirements. E.g., Earth Observation	Primarily referring to activities, products and services derived from space technology in other sectors, such as manufacturing and health. It includes additional space-related activities such as space insurance and awareness, education and training.

- **Entry of Private Sector:** Space is **no longer the exclusive domain of Government**, and it is set to be driven by **synergistic efforts between public and private** sectors due to its **strategic and economic significance.**
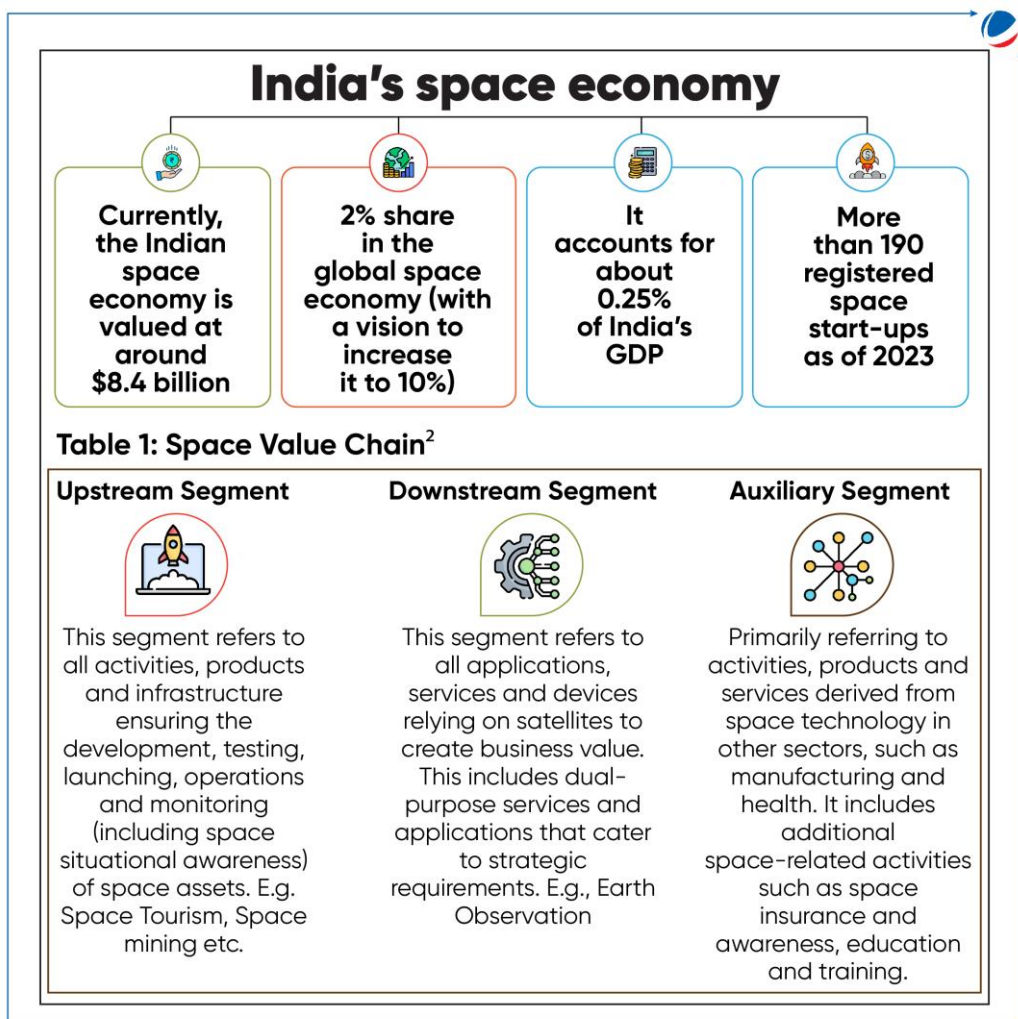
- **Segmental diversification**: Until now, most of the contribution of space technology has been from the **upstream segment of the value chain** through **satellite manufacturing, launching etc.,**
  - **India's new space policy 2023** has opened opportunities for space technology to serve **even the downstream segment**.

Potential areas for the Indian downstream space sector

- **Remote sensing/Earth Observation (EO):** Includes services for **storage of satellite data**, **data analysis and development of applications**. In sectors like :
  - **Agriculture:** Crop identification, soil mapping, weather monitoring, irrigation management etc.
  - **Urban Planning and Development**: Master plan development, Urban heat island prediction and monitoring etc.
  - **Disaster Management**: Prediction and Post-Disaster Management.
  - **Blue Economy (Fisheries, oceanography):** Fish Detection & forecasts, Potential Fishing zones etc.

Indian Space Association (ISpA)

INDIAN SPACE ASSOCIATION
Bhumandal Se Brahmaand Tak

Genesis: Launched in 2021.

About: **Non-profit industry body,** setup exclusively for the successful collaborative development of the Private Space Industry in India.

Founding members: Larson & Toubro, Nelco (Tata Group), OneWeb, Bharti Airtel etc.

Function: Act as a bridge between the **Government and Private Industry.**

Objectives:
- Ease of Doing Business and Policy Stability.
- Fostering Awareness.
- International Partnerships.

- **Satellite Communications (SatCom):** Focuses on products and services that use communication satellites for services like **broadcasting, communication, and internet connectivity**.
  - **Connectivity for bank branches** in remote areas.
  - **Health, Education and Governance Delivery.**
  - **Other Sectors**: Tourism, Payments, Trade, Digital Commerce etc.
- **Positioning, Navigation & Timing services (PNT):** Includes services used for tracking of **assets, navigation services on air, land and sea** etc.
  - **Guidance**: Drones, Navigation for enterprises, Toll collection, Railways.
  - **Civil Aviation**: Commercial Aviation, Airport Operations etc.
  - **Time Synchronization:** Telecom, Energy, Finance etc.
- **Space for Strategic Purposes**: Categorised as the **fourth operational domain**, space has always been a **dual-purpose sector** to serve national security and strategic interests.
  - **Secure Communication**: Integrated Command and Control Centre.
  - **Intelligence, Surveillance and Reconnaissance**: Strategic Surveillance, Asset , Marine Domain Awareness etc.

Challenges for the emerging Indian Private Space ecosystem

- **International Competition**: Global space industry is **highly competitive**, and Indian companies **need to find their niche and differentiate themselves** to compete effectively.
- **Access to Capital:** Major funding is for the industries related to the upstream activities while the downstream companies pull in lower amounts.
- **Supply Chain Disruption**: Global instability and geopolitical conflicts disrupt supply chains, leading to limited access to key equipment for private sector.
- **Other concerns:**
  - Indian space tech market lacks comprehensive **data aggregation and analytics capabilities**.
  - Space sector faces challenges in justifying **Return on Investment (ROI)** due to the high cost of space resources.

Way ahead

- **Active role of Government:** With the space sector opening up, governments have a crucial role to play **as enablers and consumers of Earth observation-based services**. Their involvement can **nurture the growing ecosystem.**
- **Streamlined Regulatory Framework:** Simplify and expedite regulatory processes, ensuring transparency and predictability in approvals.
- **Public-Private Partnerships:** Encourage collaborations to expand satellite communication services to make space-based services more affordable.
- **Global Collaboration**: Enhance and Strengthen Cooperation of International Partners with the Indian Space Industry through initiatives like Satellite Services, NISAR (India-US) etc.

7.6. ASTEROIDS

Why in the news?

NASA's **OSIRIS-REx mission** brought the sample from **carbon-rich asteroid Bennu back to Earth.**
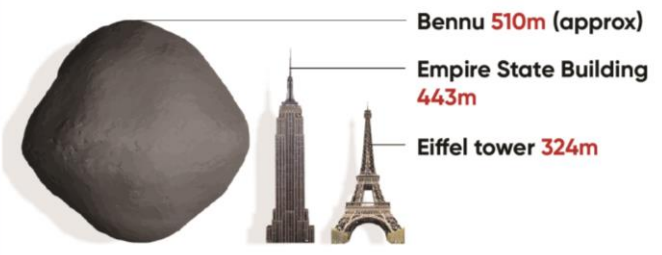
About OSIRIS - REx's mission

- **OSIRIS-REx is an acronym for:** Origins, Spectral Interpretation, Resource Identification, and Security - Regolith Explorer.
- **Goal of the mission: Collect samples** from **asteroid Bennu** and deliver them to Earth.
- **Timeline of Mission:**
  - **2016**: Spacecraft was launched.
  - **2020**: **Collected rocks and dust** from the surface of **asteroid Bennu.**
  - **2021**: After further study of the asteroid, the **spacecraft began its cruise back to Earth** with the sample.
  - **2023**: **Became the first U.S. mission** to **deliver a sample of an asteroid** to Earth.
- **New Journey**: After its sample delivery, OSIRIS-REx continued on to **a new mission to asteroid Apophis.**
  - Hence renamed as **OSIRIS-APEX (OSIRIS-Apophis Explorer).**
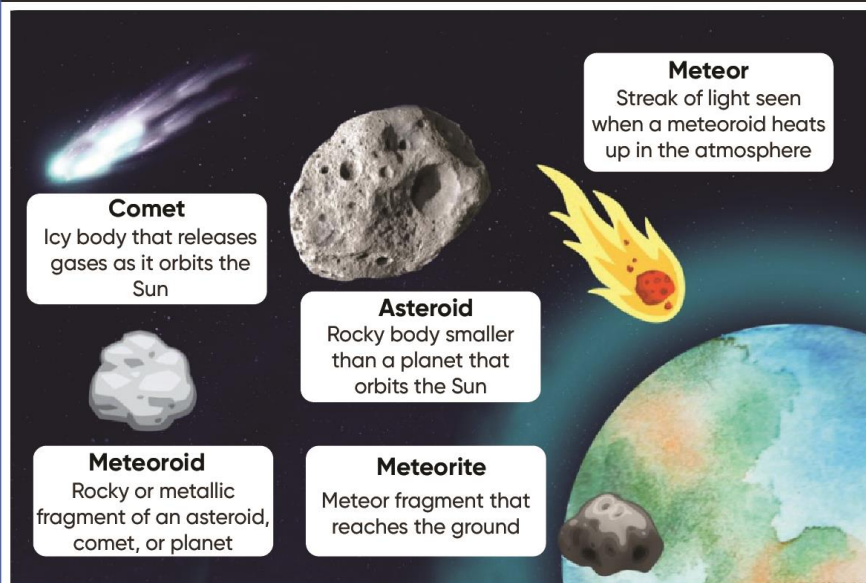
About Asteroids

- **Asteroids**, sometimes called **minor planets** are **rocky objects** that orbit the Sun, **much smaller than planets.**
- **Asteroids are divided into 3 classes based on their location:**
  - **Main Asteroid Belt:** Found in the **main asteroid belt between Mars and Jupiter**, which is estimated to contain somewhere between **1.1-1.9 million asteroids.**
    - ✓ **Total mass of all the asteroids** in the **main asteroid belt** combined is **less than that of Earth's Moon.**
  - **Trojans:** These asteroids **share an orbit with a larger planet**, but do not collide with it.
    - ✓ NASA reports the presence of **Jupiter, Neptune and Mars trojans**. In 2011, they reported an Earth trojan as well.

About Asteroid Bennu

- Bennu 510m (approx)
- Empire State Building 443m
- Eiffel tower 324m

Type: A small, **near earth carbon-rich asteroid**	Age: Around 4.5 billion years old
Composition: Established within 10 million years of the formation of our solar system	Orbit: Completes an orbit around the Sun every 1.2 years
Close encounters: Comes very close to Earth, every 6 years	

Asteroids and related bodies

Comet Icy body that releases gases as it orbits the Sun

Asteroid Rocky body smaller than a planet that orbits the Sun

Meteor Streak of light seen when a meteoroid heats up in the atmosphere

Meteoroid Rocky or metallic fragment of an asteroid, comet, or planet

Meteorite Meteor fragment that reaches the ground

- o **Near-Earth Asteroids:** These have **orbits that pass close to the Earth**. Asteroids that cross the Earth's orbit are called **Earth-crossers.**

How does Asteroid exploration contribute to Astronomy?

- **Insight on formation of Solar System**: Asteroids like Bennu are considered **remnants of the formation of our solar system.** Analysing these samples can help us **understand the conditions and materials present at that time.**
- **Origin of Life**: Samples can provide insights into the **chemical and organic compounds** that may have played a role in the **origin of life on Earth**.
  - o For example, Initial studies of the Bennu sample show evidence of **high-carbon content and water**, which together could indicate the building blocks of life on Earth.
- **Planetary Defense**: Understanding the **composition and structure** of asteroids like Bennu is crucial for creating **planetary defence efforts** for the future**.**
  - o This information can help in developing **strategies to mitigate the potential threat** posed by near-Earth objects.
- **Space Exploration Technology**: The mission demonstrates **advanced technology** in spacecraft **design, navigation, and sample collection** which can be applied to future space missions.
  - o **JAXA (Japan)** will launch its **MMX (Martian Moons eXploration) mission** in 2024 to study the **Martian moons** & **will collect surface samples from Phobos.**
  - o **NASA and the European Space Agency** are designing a multi-mission campaign to retrieve samples that **NASA's Mars 2020 Perseverance rover** is collecting.
- **Resource Utilization**: By analysing the composition of Bennu's materials, we can assess the **potential for resource utilization**,
  - o Such as **mining asteroids** for valuable minerals or water.
- **International Collaboration**: It highlights the significance of global collaboration in space exploration and the scientific community's ability to work together on ambitious projects.
  - o This includes **global missions** for gathering samples from space in general and exploration of asteroids in particular.

Missions which have gathered samples from the space	Missions for Exploration of Asteroids
• **NASA's Apollo 11 (1969)**: Collected and returned the First Space Samples from the Moon. • **NASA's Genesis spacecraft (2004):** Collect samples of the solar wind. • **NASA's Stardust mission (2006):** Became the **first to collect comet samples** and deliver them to Earth. • **JAXA's Hayabusa2 mission** (**2020**): Delivered the sample from **asteroid Ryugu.**	• **NASA's Galileo mission** was the first spacecraft to fly past an asteroid Gaspara in 1991. • **In 2005, Japanese spacecraft Hayabusa** landed on the near-Earth asteroid Itokawa and attempted to collect samples. • **NASA's Dawn spacecraft** was launched in 2007 to explore asteroid **Vesta.**

Conclusion

The recent success of the **sample return mission** is significant, making it a **pivotal event** in **space exploration.** This holds the **promise of expanding our knowledge of the universe** and **positively impacting our future endeavours in space.**

7.7. NEWS IN SHORTS

7.7.1. TRADITIONAL MEDICINE ON WORLD HEALTH ORGANISATION'S LIST

- **Ministry of Ayush** has sought for Ayurveda and related systems to be included in **11th revision of International Classification of Diseases (ICD-11) as Module-2** of a supplementary chapter on traditional medicine conditions.
  - o Development of Module-2 relies on implementation knowledge obtained from **National Ayush Morbidity and Standardized**

Terminologies Electronic (NAMSTE) portal and **Ayush Health Information Management System (AHIMS)**.

- ICD is the **international standard** for systematic **recording, reporting, analysis, interpretation, and comparison of mortality and morbidity data**.
  - o Previously, **ICD-11 included Module-1** that covers **traditional medicine conditions originating in ancient China,** which is now **commonly used in Japan, Korea** etc.

- o **ICD-11** came into effect from **January 2022.**
- **Significance of ICD-11**
  - o **Provides a list of diagnostics categories to collect and report on traditional medicine conditions** in an internationally comparable manner.
  - o **Link traditional medicine practices with global conventional medicine's norms** and standard development.
  - o **Enable integration of traditional medicine into insurance coverage and reimbursement systems**, in line with WHO objectives relating to universal health coverage.

> **Traditional Medicine**
> - Refers to **sum of knowledge, skills and practices indigenous and different cultures** have used over time to maintain health and diagnose and treat physical and mental illness.
>
> **National Ayush Morbidity and Standardized Terminologies Electronic (NAMSTE) portal**
> - It provides standardized terminologies & morbidity codes for Ayurveda, Siddha and Unani systems of medicine.
>
> **Ayush Health Information Management System (A-HIMS)**
> - It is a comprehensive IT platform to effectively **manage all functions of health care delivery systems** and patient care in Ayush facilities.

7.7.2. AYUSHMAN BHAV CAMPAIGN

- **Initiative of Ministry of Health and Family Welfare.**
- **Objective:** To extend comprehensive healthcare coverage to every village and town.
- **It has 3 components:**
  - o **Ayushman Apke Dwar 3.0**: To provide Ayushman cards to remaining eligible beneficiaries enrolled under the PM-JAY scheme.
  - o **Ayushman Melas**: To facilitate the creation of Health IDs and issuance of Ayushman Bharat Cards.
  - o **Ayushman Sabhas**: To raise awareness about vital health schemes and disease conditions.
- NGOs, SHGs, PRIs, Youth groups, Primary cooperative societies, Indian Medical Association and companies using CSR funds, will be part of the campaign.

7.7.3. INDIAN PHARMACOPOEIA COMMISSION (IPC) BECOMES A MEMBER OF PHARMACOPOEIAL DISCUSSION GROUP (PDG)

- **IPC** is an **Autonomous Institution** of the **Ministry of Health and Family Welfare** formed i**n 2009.**
- It publishes the **Indian Pharmacopoeia (IP)** and r**egularly updates** the **standards of drugs** imported,

manufactured stocked or exhibited for sale or distributed in India.
  - o **Pharmacopoeia** refers to **book/ monograph** published by a government, or recognised organisation **to provide standards of strength and purity for therapeutic drugs.**
  - o In IP standards for drugs are in terms of **Second Schedule to the Drugs and Cosmetics Act, 1940 and Rules 1945 thereunder.**
- **About PDG**
  - o It was formed by **the US, EU and Japan in 1989** and **World Health Organization** joined **an observer** in 2001.
  - o It works to **harmonize pharmacopeial standards** in the member countries/regions.
    - ✓ Harmonization reduces **manufacturers' burden** of having to **perform analytical procedures in different ways,** using different acceptance criteria, to **satisfy pharmacopeial requirements that vary across regions.**
- **Benefits to IPC of joining PDG**
  - o **International Recognition** of the **standards** set by the IPC.
  - o Enhanced acceptance of **Indian pharmaceutical products** in global markets.
  - o **Better public health worldwide**, as it helps to prevent the circulation of substandard or counterfeit drugs.

7.7.4. MONOCLONAL ANTIBODY

- The Union Government has decided to **procure doses of Monoclonal Antibody from Australia.**
- Monoclonal antibody, an experimental therapeutic, was **also imported for treatment of infected patients during 2018 Nipah outbreak in Kerala.**
  - o Nipah virus (NiV) is **a zoonotic virus** and can be transmitted through contaminated food or directly between people.
- Monoclonal antibodies (mAbs) are **artificial antibodies that mimic the activity of our immune systems.**
  - o They are **produced through a process that involves extracting specific antibodies** from human blood and **then cloning them.**
    - ✓ They are **clones of just one antibody**, and they bind to one antigen only**.**
  - o They are made by **homogeneous hybrid cells (B cells)** derived from the same parent cell.
    - ✓ **Polyclonal antibodies (PAbs),** on the other hand, are a mixture of antibodies that are secreted by different B cell lineages.
  - o They have been used in the **treatment of cancers, Ebola, HIV etc**.

- mAbs can effectively **bind with a part of the viral envelope** that attaches to the human cells to gain entry into the body.
  - This **effectively neutralises the virus**.
- **Concerns with mAbs:** Side effects such as **cytokine release syndrome reactions**, **allergic/atopic disorders**, **impaired immune function**, etc.

> **Know the term**
> ➤ **Antibodies** are protective proteins produced by the immune system in response to the **presence of a foreign substance,** called an **antigen.**

7.7.5. R21/MATRIX-M (MALARIA VACCINE)

- World Health Organization has recommended **second malaria vaccine**, **R21/Matrix-M**, for the **prevention of malaria in children.**
  - This follows WHO recommendation for the RTS,S/AS01 vaccine in 2021.
- **R21/Matrix-M vaccine** has been licensed for **use in Ghana, Nigeria and Burkina Faso.**
  - It was developed by Jenner Institute at Oxford University and Serum Institute of India.
  - **Key features**: Cost effective, high efficacy, safe in clinical trials.
- Malaria is caused by **Plasmodium parasites**, which are **spread to people through bites of infected female Anopheles mosquitoes**.

7.7.6. PACKAGING OF FOOD PRODUCTS

- Under **Food Safety and Standards (Packaging) Regulations, 2018** use of **newspapers** or similar materials for storing and wrapping food is **strictly prohibited.**
- Newspapers are often subjected to **various environmental conditions** during distribution, making them susceptible to **contamination by bacteria, viruses or other pathogens**
- The **ink used in newspaper printing may cause cancer, liver** failure, lung damages, etc. **due to:**
  - components such as **Lead, Naphthylamines aromatic hydrocarbon, and** Agonists for **AhR** (aryl hydrocarbon receptor).
    - ✓ AhR is a protein that mediates toxicity.

7.7.7. PROTEIN BINDERS

- FSSAI has clarified addition of **protein binders** or any other additives in dairy products is not permitted.

- Protein binders are **biological research reagents** which bind to a specific target protein to manufacture a wide range of new food products.
  - Protein binding can enhance or detract performance.
- Protein binding is known to **affect the digestibility of the protein-bond** and thus can **affect the biological and nutritive value of milk protein.**
- **Milk Protein**
  - It is a good source for **essential amino acids**.
  - **Milk proteins are easily digestible and do not contain any anti-nutritional factors** unlike many plant based proteins.

7.7.8. NATIONAL MISSION ON INTER-DISCIPLINARY CYBER PHYSICAL SYSTEM (NM-ICPS)

- National Workshop of Technology Innovation in CPS highlighted the **importance of Technology Innovation Hubs** set up under NM-ICPS.
- CPS are **collection of computing devices** communicating with one another and interacting with the physical world via sensors and actuators in a feedback loop.
  - It includes technologies like **Artificial Intelligence**, **Internet of Things**, **Machine Learning**, **Robotics**, etc.
  - **Application areas:** Healthcare, precision agriculture, energy infrastructure etc.
- NM-ICPS was **launched in 2018 by Department of Science &Technology.**
  - **Vision**: Make India a leading player in CPS technologies.
  - **Objective**: Promote translational research in CPS and associated technologies.

7.7.9. GRAVITY BATTERY

- A gravity battery is a **type of electricity storage device** that involves lifting (charging) and lowering (discharging) a heavy weight.
- When there is plenty of green energy, the batteries **use the power to lift a heavy weight (or blocks)** either high into the air or to the top of a deep shaft.
- When electricity demand picks up, the blocks are lowered one by one, releasing **kinetic energy that is used to rotate a motor and generate electricity**.

7.7.10. NEANDERTHALS

- Researchers have found that humans carry DNA remnants of ancient Neanderthals.
- Neanderthals were humans. They were a **distinct species called Homo neanderthalensis**.

- They **lived in Europe and southwest and central Asia** during **middle to late Pleistocene Epoch**, about 400 000 to 40 000 years ago.
- **Physical Appearance**: Long, low skull (compared to more globular skull of modern humans) with a characteristic prominent brow ridge above their eyes, relatively short and stocky bodies (suited to cold environments).
- They were **skilled toolmakers** and used a **technology called Mousterian culture** which involved the **creation of various stone tools** like scrapers, points, and hand axes.

7.7.11. GREEN AMMONIA

- **Green Ammonia** from, **Egypt imported** through VOC Port, **Tamil Nadu for the first time.**

- **Green ammonia** is made using **100% renewable and carbon-free source.**
  - **Blue Ammonia,** refers to the ammonia for which **by-product CO2 has been captured and stored,** reducing climate impact.
  - **Grey/Brown Ammonia** refers to the a**mmonia produced using fossil fuels.**
- **Ammonia (NH3) is a pungent gas** widely used **to make fertilisers.**
  - Produced through **Haber-Bosch process** in which hydrogen and nitrogen are reacted together at **high temperatures and pressures**.
  - Ministry of Power has **notified Green Ammonia Policy in 2022.**

QUIZ

SMART QUIZ

You can scan this QR code to practice the Smart Quiz of Science & Technology at our open test online platform for testing your understanding and recalling of the concepts.

PERSONALITY DEVELOPMENT PROGRAMME

CIVIL SERVICES EXAMINATION - 2023

Starts
20 OCT

Programme Features

★ DAF Analysis Session with senior faculty members of Vision IAS

★ Mock Interview Session with Ex-Bureaucrats/ Educationists

★ Interaction with Previous toppers and Serving bureaucrats

★ Performance Evaluation and Feedback

8. CULTURE

8.1. RURAL TOURISM

Why in the news?

Recently, the **United Nations World Tourism Organization (UNWTO)** announced its list of **Best Tourism Villages 2023**.

More on news

- **Launched in 2021**, **Best Tourism Villages by UNWTO initiative** is part of the UNWTO Tourism for Rural Development Programme.
- **The initiative comprises three pillars:**
  - **Best Tourism Villages by UNWTO**: Recognizes outstanding r**ural tourism destinations with accredited cultural and natural assets**, a commitment to preserving community-based values, and a clear commitment to innovation and sustainability across economic, social, and environmental dimensions.
  - **Best Tourism Villages by UNWTO Upgrade Programme**: Supports villages on their journey to meet recognition criteria, helping in areas identified as gaps during evaluation.
  - **Best Tourism Villages Network**: A space for **exchanging experiences and good practices, learning, and opportunities among its members,** and it is open to contributions of experts and public and private sector partners engaged in the promotion of tourism as a driver for rural development.

United Nations World Tourism Organisation (UNWTO)
Madrid, Spain

Genesis: It was **proposed in 1946** to replace the Union of Official Tourist Propaganda Organizations (IUOTPO).
- **Established in 1975** and became **a specialized body of the UN** in **2003**.

About: **Promotes tourism as a driver of economic growth,** inclusive development and environmental sustainability.

Objective: **Strengthening UNWTO's capacity** to position tourism in the 2030 Agenda for Sustainable Development and SDGs.

Governing Bodies:
- **General Assembly:** It is the **principal gathering of UNWTO.** It is composed of Full Members and Associate Members. It **meets every two years** to approve the budget and programme of work.
- **Six regional commissions:** Africa, Americas, East Asia and Pacific, Europe, Middle East and South Asia.
- **Executive Council:** The term of office of Members elected to the Council is **four years.**

Members: 160 Member States, 6 Associate Members, 2 Observers.

Is India a member ✔

Best Tourism Villages are evaluated under nine key areas

- Cultural and Natural Resources
- Economic Sustainability
- Environmental Sustainability
- Governance and Prioritization of Tourism
- Health, Safety, and Security
- Promotion and Conservation of Cultural Resources
- Social Sustainability
- Tourism Development and Value Chain Integration
- Infrastructure and Connectivity

Dhordo Village (Best Tourism Villages 2023)	Madla Village (Selected in Upgrade Programme)

• **Dhordo village in Kutch district of Gujarat** has gained global recognition as one of the **Best Tourism Villages** awarded by the UNWTO.
• Dhordo is famous for **hosting the annual Rann Utsav** (**White Desert Festival**).
  o Rann Utsav **celebrated every year** in November onwards by **Gujarat Tourism**. It is a **cultural extravaganza** that **showcases** the **region's traditional art, music, crafts, dance, and cuisine.**
  o Dhordo is also **home to the Mutwa community from Sindh**, specialising in **Mutwa embroidery** (chain of stitches inset with mirrors, silver jewellery and leather embroidery).
	• **Madla Village** is located in **Panna district of Madhya Pradesh.**
	• River **Karnawati (Ken) flows** through the village.
	• Some intangible heritage of the village includes folk **music & dance, local festivals and Bundelkhand cuisine.**
	• The architecture of the houses is still has the essence of the village.
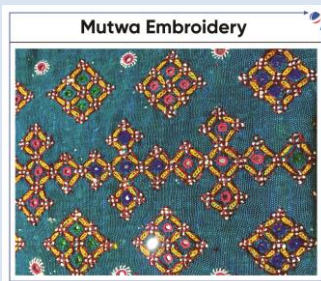
About Rural Tourism

• Rural tourism represents **any form of tourism that showcases the rural life, art, culture and heritage at rural areas**.
  o **Ministry of Tourism** has identified rural tourism as a niche area for the development and promotion of rural India.
  o **Different forms to rural tourism include** agritourism, cultural tourism, ecotourism, etc.
• **Rural Tourism activities** take place in non-urban (rural) areas with the **following characteristics:**
  o Low population density.
  o Landscape and land use are dominated by agriculture and forestry.
  o Traditional social structure and lifestyle.

Challenges associated with Rural Tourism

• **Poor infrastructure:** Long distance from nearby towns; lack of **connectivity and poor transportation** facilities; **inadequate lodging, amusement facilities**, electricity, telecommunication including ICT infrastructure etc.
• **Lack of awareness and skills:** Rural populations often lack knowledge, skill and financial backing to market their cultural, artistic, and craft-related services to tourists.
• **Lack of trained manpower:** Rural areas lack trained human resources **affecting directly the tourism and hospitality industry.** Moreover, the trained workforce from urban areas generally tends to refrain from tapping rural tourism opportunities due to the seasonal demand of the industry.
• **Digital Illiteracy:** Digital literacy in rural areas **hinders the adoption of technology-based solutions to market and attract tourists** such as advertisements on social media, online booking services etc.

Initiatives taken to promote Rural Tourism

• **National Strategy and Roadmap for Development of Rural Tourism in India**: It aims **to leverage India's rural heritage in creating a vibrant and responsible tourism segment** by creating engaging rural experiences.

- **National Strategy for Promotion of Rural Homestays (RH):** It aims to **develop RH as an experiential tourism product** which **boosts rural tourism**.
  - Ministry of Tourism has designated the **Indian Institute of Tourism and Travel Management (IITTM)** as **the Central Nodal Agency (CNA-Rural Tourism and Rural Homestay).** It identifies villages which provide a set of unique experiences to tourists. For instance,
    - ✓ **Tamil Nadu's Kolukkumalai (highest tea plantation in world)**; **Kerala's Devalo- kam (yoga centre)**; **Telangana's Pochampalli village** (traditional weaving techniques); **Maachli in Maharashtra (agrarian homestay** surrounded by coconut, banana plantations) etc.

> **Kongthong** (East Khasi Hills, Meghalaya)
> - It is popular as the **'whistling village'** due to its **unique tradition of 'Jingrwai Lawbei'** (**meaning the Song of the Clan's First Woman**).
> - It is a **tradition under which mothers create a tune for their newborns.** These tunes are often used as names.
> - **Kongthong people belong to the Seng Khasi Tribe and speak the Khasi language.**

- **National Tourism Awards (NTA):** The **Ministry of Tourism presents annually** NTA to various segments of the travel, tourism and hospitality industry including State Governments in recognition of their performance and to **encourage healthy competition to promote tourism**.
  - **Kongthong village** honoured with **'Best Tourism Village (Bronze)' award at National Tourism Awards (NTA) 2023**
- **Dekho Apna Desh Scheme:** It aims to **increase domestic tourism** in India by encouraging people to **explore the rich cultural heritage and diversity of India**.
- **Unity Mall**: It was announced in **Union budget 2023-2024**. These malls can be set up either in their state capitals or major tourism and economic centres **to promote and sell each state's unique "one district, one product" (ODOPs), "geographical indication" (GI), and other handicraft products.**

Way ahead

- **Digital Literacy:** Indian tourism startups along with NGOs can provide **digital literacy and simplified digital solutions to improve service delivery**, advertise local attractions etc. to attract tourists to the rural space.
- **Infrastructure:** Developing community-based tourism infrastructure and attracting **public-private partnerships** can address the issue of lack of tourism infrastructure in rural areas.
- **Government Support:** To facilitate rural tourism, the government can provide both **financial and infrastructure support** for recognized and high-potential tourist attractions. **E.g., subsidies for the skill development of guides, creation of adventure sports infrastructure etc.**
- **Collaboration and recognition:** Convergence of various schemes from different ministries focusing on rural development to promote sustainable rural tourism and providing recognition to attract tourists.
- **Marketing:** Measures like Integration of rural tourism in the state tourism architecture, marketing and building places for niche tourism such as **Agri-tourism, water sports etc.** can increase the appeal of rural destinations.
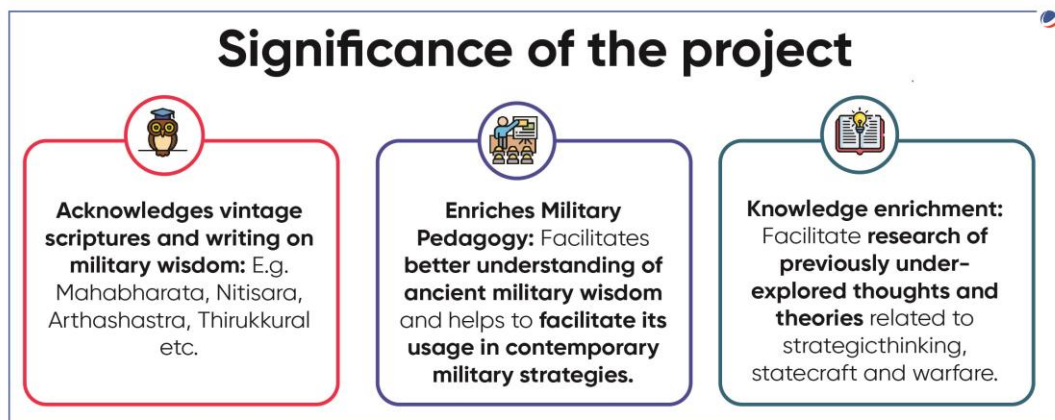
8.2. MILITARY SYSTEMS IN ANCIENT INDIA

Why in news?

Recently, **Defense minister launched Project Udbhav** at inauguration of **Indian Military Heritage Festival (IMHF).**

Project Udbhav

- It is a **collaborative project** between **the Indian Army** and the **United Service Institution of India (USI)**, a defense think tank.

Significance of the project

- Acknowledges vintage scriptures and writing on military wisdom: E.g. Mahabharata, Nitisara, Arthashastra, Thirukkural etc.
- Enriches Military Pedagogy: Facilitates better understanding of ancient military wisdom and helps to **facilitate its usage in contemporary military strategies.**
- Knowledge enrichment: Facilitate **research of previously under-explored thoughts and theories** related to strategic thinking, statecraft and warfare.

- **Objective**:
  - To rediscover **the profound Indic heritage of statecraft and strategic thoughts**. ('Udbhav' translates to 'origin' or 'genesis')
  - To **integrate ancient Indian wisdom** with **modern military pedagogy** through interdisciplinary **research, workshops and leadership seminars**.
  - **Formulate a holistic approach to modern military challenges** using ancient military wisdom.

Military systems in Ancient India

India's ancient military wisdom is based upon **large body of intellectual texts, scriptures, manuscripts, thinkers and study of prominent military campaigns and leaders**.

- **Kautilya's realism**: Kautilya wrote Arthasastra around 300 BC, belongs to Mauryan period. His strategies emphasize understanding **ground realities and adapting tactics accordingly.**
  - **Mandala theory**: It deals with **knowledge of foes, friends and allied countries**.
    - ✓ It postulates that **immediate neighbor state is most likely to be an enemy** (real or potential) and a **state next to the immediate neighbor is likely to be friendly**.
  - **Diplomacy and Alliances:** Kautilya placed a strong emphasis on diplomatic strategies and forming alliances to achieve strategic goals.
  - **Intelligence Gathering:** He advocated the **use of spies (Amatyas)** to collect information about enemy capabilities, intentions, and weaknesses.
  - **Logistics and Supply Chains**: The Arthashastra discusses the importance of proper **provisioning and management of resources** for the success of military expeditions.
- **Kamandaka by Nitisara**: It belongs to the Gupta age and follows the Arthasastra tradition.
  - **Building and maintaining friendly relations** with neighbouring states were considered vital for the overall security and stability of the kingdom.
  - **Strategy of Upeksha** (diplomatic neglect, diplomatic indifference), Maya (deception) reused and revived during the Indian freedom struggle.
  - Proposed that **army with women can also fight**.
- **Thiruvalluvar by Thiruvalluvar (31 BC)**: It deals with **Ethical conduct during warfare**.
  - It aligns with modern **military codes of ethics** of just war and **principles of Geneva Convention**.
- **Agni Purana:** It was first to explain the **philosophy of reserve (pratigraha) on the battlefield**. Reserves are integral part of modern day army structure.
- **Ramayana, Mahabharata, Bhuddhist Jatakas**: The victory and defeat in the battle largely depended on the knowledge of the **science of Vyuha** and the tactical deployment of the troops.

Relevance in today's time

- **Kautilyan realism**: India today can benefit from adopting a realistic assessment of geopolitical challenges and opportunities. **Ex:** Understanding the strategic motive of China, USA.
- **Enduring Elements of Kautilya's foreign policy**: such as the fight for power, **national interests**, alliances, enmity, and diplomacy, remain unaltered.
- **Being Vigilant**: Mandala theory suggests that natural adversaries do not imply constant warfare but necessitate a **state of alertness in international relations**. **Ex**: India is vigilant in its borders with Pakistan and China.
- **Ethical principles:** Thiruvalluvar's ethical principles provide a timeless framework **for evaluating the morality of actions** in modern conflicts.
  - **Leaders are expected to exemplify moral conduct** and inspire their followers to adhere to ethical standards.

8.3. SIR SYED AHMED KHAN

Why in the news?

Year 2023 marked **Sir Syed Ahmed Khan's 125th death anniversary**.

About Sir Syed Ahmed Khan (1817-1898)

- He worked as a **civil servant, journalist, educationist, social reformer and historian**.

- **Religious view**
  - Sir Syed Ahmed Khan's **interpretation of Islam emphasised the validity of free enquiry (ijtihad)**.
  - He also **highlighted similarities between Koranic revelations** and the laws of nature discovered by modern science
- **Writings**:
  - He has also written a paper titled **"The Causes of the Indian Revolt"** to explain the reasons for the revolt from native perspective.
  - **The Aligarh Institute Gazette**, a magazine published by him was an organ of the **Scientific Society,** succeeded in agitating the minds in the traditional Muslim society.
  - **Tahzebul Akhlaq** (Social Reformer in English), a magazine founded by him, to awaken people's consciousness on social and religious issues.
  - He was also a scholar on Christianity and wrote a book, **'Commentary on the Holy Bible'.**
  - **Historical Documentation:** His works, like "**Asar-us-Sanadid**," contributed to preservation of India's rich cultural heritage and serve as valuable historical references.
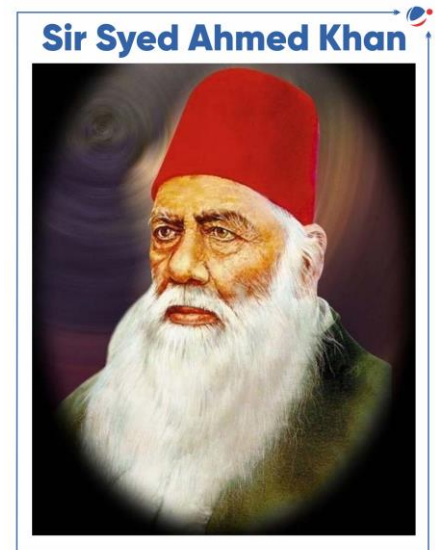
Role as a Social Reformer

- **Transformation in the Education sector**
  - He instituted **Scientific Society in 1863** to instill a scientific temperament into the Muslims.
  - He foresaw the imperative need for the **Muslims to acquire proficiency in the English language.**
  - He realised that the **advancement of Muslims depended on their adoption of modern education** and **proficiency in the English language.**
  - He founded **Muhammadan Anglo-Oriental College in Aligarh in 1875** and started the **Aligarh movement.**
  - He was against **ignorance, religious intolerance, and irrationalism**.
- **As part of National Movement**
  - In his later years, Sir Syed encouraged the **Indian Muslims not to join the National Movement**.
  - He is regarded as one of the founders of the **Two-Nation Theory** which says that Hindus and Muslims cannot coexist as a single nation.
- **Record on women's rights: Conservative**
  - Sir Syed Ahmed Khan faced criticism for advocating "**disorganized tutor-based home education**" for women, focusing on family roles.
  - He expressed concerns that **formal education for women might hinder their marriage prospects.**
  - He supported **gender segregation and purdah-centric home education**, opposing co-education and girls' institutions.
  - Despite this, he **denounced polygamy**, **Infanticide, and child marriage.**
  - His visit to England in 1869-70 influenced a somewhat **revised outlook on women's education**, recognizing its importance for societal progress and acknowledging women's freedom in Europe.

Conclusion

Sir Syed Ahmed Khan's contributions and ideas are relevant in addressing various challenges that India faces today, including education, social reform, gender equality, interfaith harmony, and the preservation of cultural heritage.

8.4. RANI DURGAVATI

Why in news?

Recently, **500th birth anniversary** of Veerangana Rani Durgavati was celebrated.

About Rani Durgavati

- She was born in **Chandel Dynasty of Mahoba in Banda, UP** and was married to Dalpatshah of **Gond Dynasty of Garha-Katanga** in 1542.

- o **Gonds** are one of the largest tribal groups and located in central India.
- **Assuming leadership:** She took reins of the Gond Dynasty in 1550 after Dalpatshah's death as the guardian of her son Veer Narayan.
- **Conflict with Akbar:** She was contemporary of Mughal emperor Akbar. During her reign**, Akbar** attacked the Gond Empire under the leadership of **Asaf Khan**.
  - o She opposed Mughal expansionism.

Contributions

- **Infrastructure Development:** She **constructed reservoirs** such as Ranital, Cherital and Adhartal and **moved the Capital to Chauragarh** (from Singaurgarh) on the strategic Satpura Hill Range.
- **Patronage of Religious Figures:** She allowed Acharya Bitthalnath to establish a **seat of the Pushtimarg Cult at Garha**. She welcomed the Vitthalnath of Vallabh community and took Diksha from him.
- **Commitment to Secular Governance**.
- **Victory over Baz Bahadur of Malwa: Tarikh-i-Firishta** mentions Durgavati defeated Baz Bahadur, the ruler of Malwa.
- **Historical documentation: Story of Durgavati was chronicled by Abul Fazl** (Akbar's chronicler) and British Colonel, Sleeman.

About Chandela dynasty of Bundelkhand

- Chandelas were an Indian Rajput clan of Central India (aka **Jejakabhukti dynasty**).
  - o **Founder**: Nanuka in 835 CE.
  - o **Prominent Rulers**: Yashovarman, Dhanga, Vidhyadhara, Paramardideva, Trilokyavarman.
- **Major Cities**: Capital city: **Khajuraho** (later changed to **Mahoba**)
- **Language**: Sanskrit and Prakrit
- **Social System**: Varna system was the basis of social organisation. Women as wives occupied a high place in the family and society.
- **Features of Temples of Khajuraho School** (mid-10th century)
  - o **Themes**: erotic sculptures drawing inspiration from Vatsyayana's Kamasutra.
  - o **Religion:** belonged to the Hindu and Jain religions.
  - o **Material**: Sandstone.
  - o **Components**: The temples had three chambers - Garbhagriha, Mandapa and Ardhamandapa.
  - o **Direction**: North or East facing.
  - o **Method**: The temples were built on a relatively high platform and **Panchayatana style** of temple making.
  - o **Lakshmana Temple (Vishnu)**- built by Yashovarman
  - o **Vishvanatha Temple (Shiva)** Parshavanatha Temple (Jain) - built by Dhanga
  - o **Kandariya Mahadeva Temple (Shiva)-**built by Vidhyadara
  - o **Sun temple in Mahoba** – built by Rahil Dev Varman
- **Contributed to the rich heritage of Bundelkhand** and constructed multiple temples inside of Kalinjar Fort.
- **Decline**: Invasion of Mahmud Ghaznavid, Qutb ud-Din Aibak.

8.5. NEWS IN SHORTS

8.5.1. NOBEL PRIZE IN LITERATURE FOR 2023

- It was awarded to the Norwegian author and dramatist **Jon Fosse**, "**for his innovative plays and prose which give voice to the unsayable.**"
- The Academy honoured Fosse's body of work written in **Norwegian Nynorsk** which includes several plays, novels, poetry collections, essays, children's books and translations.
  - o Nynorsk is one of two official languages of Norway.
- **Nobel prize for Literature** is worth **11 million Swedish kronor ($1 million)** and is regarded widely as the world's most prestigious literary award.
- The Nobel Prize in Literature has been awarded **116 times to 120** Nobel laureates between 1901 and 2023.

- In the recent years, the prizes have gone to French author Annie Ernaux (2022), Tanzanian novelist Abdulrazak Gurnah (2021).

8.5.2. TOTO LANGUAGE

- The Toto is a **primitive and isolated tribal group** of population of about 1,600 only and their language is called Toto language.
- Toto Para is located at the foot of the Himalayas just to the south of the **borderline between Bhutan and West Bengal** (on the western bank of Torsa River).
- Toto language belongs to the **Sino-Tibetan family.**
- The Toto language **does not have its own script.**
- **Dhaniram has created the Toto language script** and Toto alphabet, for which he received 'Padma Shri'.

8.5.3. ARUNACHAL YAK CHURPI

- Arunachal Yak Churpi becomes the **first ever Yak milk product** to get a **Geographical Indication (GI) tag.**
- Yak Churpi is a **naturally fermented cheese** prepared from **milk of Arunachali yak** reared in the high Altitude areas in Arunachal Pradesh.
  - Rich in protein, used as a **substitute of vegetables or mixed in meat curry** or eaten with rice as a staple food.
- GI tag is going to serve the cause of **yak conservation and yak pastoralists' socio-economic upliftment.**
  - Arunachali Yaks is **reared by tribal** yak pastoralists known as **Brokpas.**

8.5.4. MAA DANTESHWARI TEMPLE (CHHATTISGARH)

- **Dedicated to:** six armed **Mahisasuramardini** as **Danteswari** carved on a black stone.
  - It is **one of the Sakti-pithas (total 51) of India**.
- **Located at**: the confluence of **rivers Sankhini and Dankini**.
- **Constructed by**: the rulers of **Chindak Nagvanshi during 11th -12th century A.D.**
  - Further in the 14th century A.D. this temple was renovated by Annamdev who was the brother of **Prataprudra** of **Kakatiya dynasty.**

8.5.5. MEWAR SCHOOL OF PAINTING

- **Allah Baksh, Maharana Jai Singh's Court painter**, had illustrated the Mahabharata with 4,000 Mewari miniature paintings.
- **About Mewar Miniature painting (17th-18th centuries)**
  - It is a school in the **Rājasthanī style developed in Mewar (Rajasthan).**

- The emergence of the Mewar School is **associated with a set of Ragamala paintings painted at Chawand in 1605** by an artist named **Nisardin**.
- In the 18th century, Mewar painting shifted **towards courtly and secular subjects, including portraiture, court scenes**, hunting expeditions, festivals, zenana activities, and sports.
- **The Nathdwara School** is a subset of the Mewar School of painting.
- **Features:**
  - It is characterized by **simple bright colour and direct emotional appeal**.
  - Miniature painting is a **small, finely wrought portrait executed on vellum, prepared card, copper, or ivory**.
- **Mewar school artists**: Sāhibdīn (drew Raagmala), Manohar (Bal Kanda of Ramayana), and Jagannath (Bihari Satsai).
- **About Rajasthani painting:**
  - It **differs from the Mughal painting** in its bolder use of colour, an abstract and conventionalized conception of the human figure, and an ornamental treatment of landscape.
  - **Two main factors contributed to the development of Rajasthani paintings**:
    - ✓ the patronage of rich Rajputana communities
    - ✓ the revival of Vaishnavism and the growth of bhakti cults.
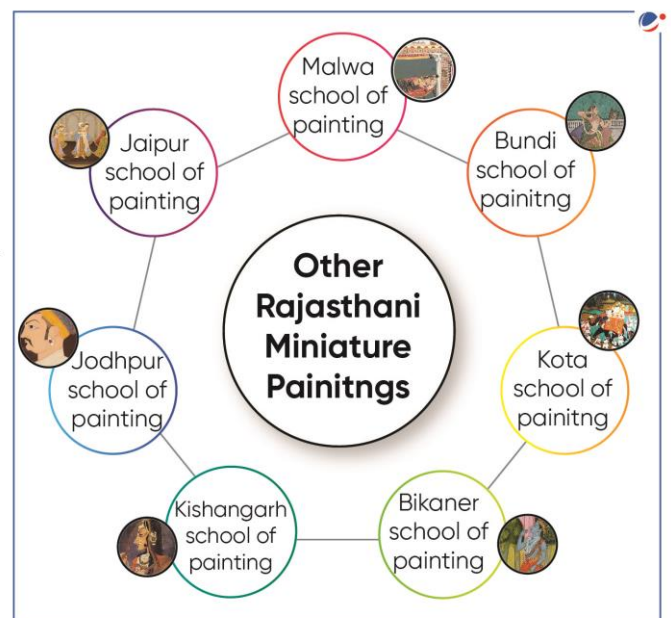
8.5.6. 53RD DADASAHEB PHALKE LIFETIME ACHIEVEMENT AWARD

- Ms. **Waheeda Rehman** was honoured with this award.
- **About award**
  - It is **India's highest award in the field of cinema** presented annually at the National Film Awards ceremony by the Directorate of Film Festivals (under Ministry of Information and Broadcasting).
  - Award was first introduced in **1969** and was bagged by actress Devika Rani.
  - Award is given **to commemorate Dadasaheb Phalke's contribution to Indian cinema** who directed India's first full-length feature film, **Raja Harishchandra in 1913.**
  - The award comprises a **Swarna Kamal (Golden Lotus) medallion**, a **shawl**, and a cash prize of ₹**10 lakh.**

SMART QUIZ

You can scan this QR code to practice the Smart Quiz of Culture at our open test online platform for testing your understanding and recalling of the concepts.

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9. ETHICS

9.1. ETHICS OF LAWMAKERS

Introduction

In various instances, concerns have been raised over the **conduct of lawmakers** in the Indian political system. Such instances include the '**Cash for Query'** probe by the Ethics Committee of Parliament and the suspension of some lawmakers for unruly conduct in the House. The core reason being cited for such issues is the **general decline of values in public life**.

Ethical values and the Stakeholders Involved

In the capacity of a lawmaker, the individual is expected to uphold certain values which aid the functioning of the whole ecosystem (refer to infographic).

Apart from Lawmakers, the whole representation and legislative exercise involves various stakeholders in upholding and promoting ethical values of public life.

Ethical Values Required in a Lawmaker

- **Integrity** in all professional and personal dealings
- **Accountabity and Responsibility** to constituents
- **Fairness and Impartiality** with best interest of public in mind
- Spirit of **Public Service**
- **Openness and Transparency** in decision making process

Stakeholders	Role	Responsibility
Citizen/Voters	Electing lawmakers and holding them accountable.	Being informed voters, participating in the democratic process, and **advocating for ethical behaviour** from their elected representatives.
Political Parties	Selecting and endorsing candidates.	Ensuring candidates **adhere to ethical standards and promote a culture of integrity.**
Media	Informing the public and shaping public opinion about lawmakers and their actions.	Reporting accurately and objectively, **holding lawmakers accountable** through investigative journalism, and avoiding sensationalism or biased reporting.
Judiciary	Interpreting and upholding the law, providing a check on actions of lawmakers.	Ensuring that legal processes are followed and **adjudicating cases of corruption or ethical violations.**
Election Commission	Conducting free and fair elections	**Monitoring election campaigns**, enforcing electoral rules, and ensuring that candidates adhere to ethical standards.

Factors causing the decline in ethical values in Law makers

- **Corruption:** Instances of bribery, embezzlement, and other forms of corruption erode public trust and contribute to a perception of unethical behaviour.
  - For example, the coal scam, 2G spectrum scam, Commonwealth Games scam etc.
- **Criminalisation of politics:** Vohra Committee in 1995 pointed out the **nexus between criminal gangs, police, bureaucracy and politicians.** The increasing involvement of politicians with criminal backgrounds contributes to a decline in ethical values, undermines the rule of law and erodes public trust.
- **Limitations of the Criminal Justice System:** The existing criminal justice system faces challenges in addressing the activities of organized crime, economic offences, and effectively negating the criminal nexus.
- **Conflict of Interest:** There may be occasions when a member may have direct, indirect or specific pecuniary interest in a matter being considered by the House or Ministry or Department.
  - **For instance,** a lawmaker with business interests that stands to gain significantly from proposed changes in environmental regulations will showcase a clear conflict of interest in voting for such changes.

> " Great leaders are willing to sacrifice their own personal interests for the good of the team.
>
> — John C. Maxwell "

- **Nepotism and Dynastic Politics:** The prevalence of dynastic politics, where family members of established politicians enter politics without a merit-based selection process, leads to a perception of favouritism and compromised ethical standards.
- **Weak enforcement:** There are weaknesses in the procedures for maintaining and enforcing high standards of public life, leading to a culture of impunity.
  - For instance, there is **no clear mechanism for addressing the ethical misconduct** of lawmakers outside the parliament house.
- **Influence of interest groups:** Powerful interest groups, whether business or social, exert undue influence on lawmakers, compromising their ethical standards in favour of personal or group interests.

Measures to imbibe ethical values required in lawmakers

- **Strengthening legal measures:** Enhancing the legal provisions with **protection of whistleblowers** and implementing stringent anti-corruption laws with severe penalties.
  - A strong mechanism for discouraging politicians with criminal backgrounds.
- **Code of conduct:** The Code could help evolve certain standard norms of behaviour which everyone intending to enter a legislature was expected to follow.
  - The essence of the code of conduct is to encourage self-discipline among lawmakers.

> **Ethics Committee of Lok Sabha**
> - The Ethics committee consists of **15 Members nominated by the Speaker for one year term.**
> - **The First Ethics Committee** of Lok Sabha was set up in 2000 and of Rajya Sabha in 1997.
>
>
>
> **Functions**
>
> To examine complaint relating to **unethical conduct of a Member** referred to it by the Speaker.
>
> Make **recommendations and formulate a code** of conduct for Members
>
> Suggest amendments to the **code of conduct**

- **Political party reforms:** The political parties need to regulate the conduct of their members. Without the sincerity and commitment of political parties, integrity in public life would be difficult to ensure.
  - There should be transparency in the funding and working of political parties.
- **Electoral reforms:** Measures minimising **the role of money power in elections** such as revision of ceiling on election expenses, corporate or State funding of political parties, regulating foreign donations to political parties, etc.
- **Penalties in the House:** In the event of a proven unethical or other misconduct or a breach of the code, the House can impose penalties such as censure; reprimand; suspension from the House for a specific period or termination of its membership.
  - This can be done through **empowering the Ethics Committee in the House.**

> To educate a person in the mind but not in morals is to educate a menace to society.
> — Theodore Roosevelt

- **Education Programmes:** Introduce civic education programs that emphasize ethical values, governance, and the importance of public service from an early age.
  - Also, leadership programmes can be started to prepare future leaders with ethical values.

Conclusion

In essence, the ethical values of lawmakers are a collective responsibility, requiring the active involvement and vigilance of all stakeholders. That will foster a political environment characterized by integrity, fairness, and adherence to democratic principles. The collaboration and engagement of all the stakeholders contribute to establishing a robust ethical framework that underpins the functioning of a democratic society.

> The strength of a nation is derived from the integrity and moral character of its leaders.
> — Atal Bihari Vajpayee

9.2. AI AND HUMAN RIGHTS

Introduction

Freedom on the Net, an annual study of human rights online, states that conditions for **human rights online are deteriorating**. The finding highlights that **AI technologies** have the potential to not only **promote but also infringe upon human rights.** An understanding of a delicate balance between them is the need of the hour.

> It has become appallingly obvious that our technology has exceeded our humanity.
> — Albert Einstein

Stakeholders	Interests
Governments	• Interests in **national security, law enforcement, and public administration**. They also want to **foster innovation and economic growth in the AI sector.**
Users of AI (citizens)	• Concerned with ensuring that AI technologies are used in ways that respect fundamental rights, such as **privacy, freedom of expression, and protection from discrimination.**
Civil Society and Activists	• To raise **awareness of human rights issues** and to hold **governments and corporations accountable** for any violations.
AI Developers and Engineers	• Aim to **advance their field, solve complex problems,** and may be **concerned with issues like algorithmic bias and fairness.**
International Organizations	• International bodies, such as the **United Nations**, have interests in **global peace, security, and development.**

Does AI harm human rights?

While AI itself is a tool and does not inherently possess the intention to harm, **its applications and implementations** have raised concerns in the recent past in the following ways:

> Success in creating effective AI could be the biggest event in the history of our civilization. Or the worst. We just don't know.
> — Stephen Hawking

• **Right to privacy**: Big-data surveillance systems **aggregate and analyze** massive amounts of **personal data**, **inferring people's most sensitive information**.
• **Free expression:** Automated systems are deployed to **censor political, social, and religious speech**.
    o **AI surveillance** can incentivize people to **avoid reprisal through self-censorship**.
• **Access to information:** Platform algorithms have promoted **incendiary content** over reliable information.
    o Pro-government commentators can use generative AI to create disinformation at scale.
• **Due process:** AI-enabled surveillance tools, such as **social media monitoring, forgo standards like "probable cause,"** treating everyone as a possible wrongdoer.
• **Discrimination**: Algorithmic systems can **perpetuate bias** built into their training data and **exacerbate long-standing discrimination.**
• **Association and assembly:** AI systems with abilities like **facial recognition** can identify and track **potential protesters**, allowing **state forces to arrest** and retaliate against them.
• **Digital election interference:** Harnessing AI to augment **disinformation campaigns**, creating deep fakes **to sow doubt, discredit opponents, and manufacture public support** etc.
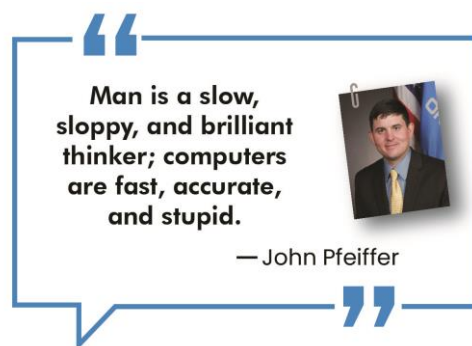
Does AI strengthen Human rights?

While there are challenges and risks associated with AI, there are also **significant opportunities for promoting and upholding human rights.**

- **Right to equality**: AI algorithms can be designed to **reduce biases in decision-making** processes.
  - By eliminating or minimizing bias in areas like **hiring, lending, and criminal justice**, AI can help ensure that individuals are treated **more equally and fairly.**
- **Privacy Protection**: AI technologies can be used to develop **advanced privacy protection mechanisms**, including secure data encryption, identity protection, and secure communication, which are essential for **safeguarding individuals' freedoms.**
- **Ensuring Accountability**: AI-powered surveillance technology can be used to hold **governments and institutions accountable.**
  - **For example**, facial recognition technology can be used to document and expose **police brutality, ensuring transparency and accountability.**
- **Protecting collective rights by enabling Governance:** For example-
  - **Predictive Policing**: AI can help law enforcement agencies allocate **resources more effectively**, **proactive crime prevention, and objective decision-making.**
    - ✓ Although, there are concerns about **the misuse of predictive policing** when used unethically.
  - **Governance and early warning systems**: AI can be used to develop early warning systems for natural disasters and humanitarian crises.

> Man is a slow, sloppy, and brilliant thinker; computers are fast, accurate, and stupid.
>
> —John Pfeiffer

Way ahead

- **Defend information integrity in the age of AI**: Regulations covering **AI should embed human rights principles** of legality, necessity, and proportionality.
- **Assessing societal impact:** Ethical and societal impacts of AI should be actively considered throughout the development process.
  - A **framework for Social Impact Assessment (SIA)** can be developed (similar to what is done for the development projects).
- **Public and Stakeholder Involvement**: Engage in open and inclusive dialogue with the public, stakeholders, and experts to ensure that AI technologies respect and incorporate human rights.

Asilomar AI principles

RESEARCH	ETHICS AND VALUES	LONGER-TERM ISSUES
• Research goal	• Safety	• Capability caution
• Research funding	• Failure transparency	• Importance
• Science-policy link	• Judicial transparency	• Risks
• Research culture	• Responsibility	• Recursive self-improvement
• Race avoidance	• Value alignment	• Common good
	• Human values	
	• Personal privacy	
	• Liberty and privacy	
	• Shared benefit	
	• Shared prosperity	
	• Human control	
	• Non-subversion	
	• AI arms race	

- **Global Collaboration**: Encourage international collaboration and agreements to establish common standards and best practices for AI ethics and human rights.
- **Ethical Guidelines and Regulations**: Develop and adhere to ethical guidelines for AI development and deployment on the lines of Asilomar principles.
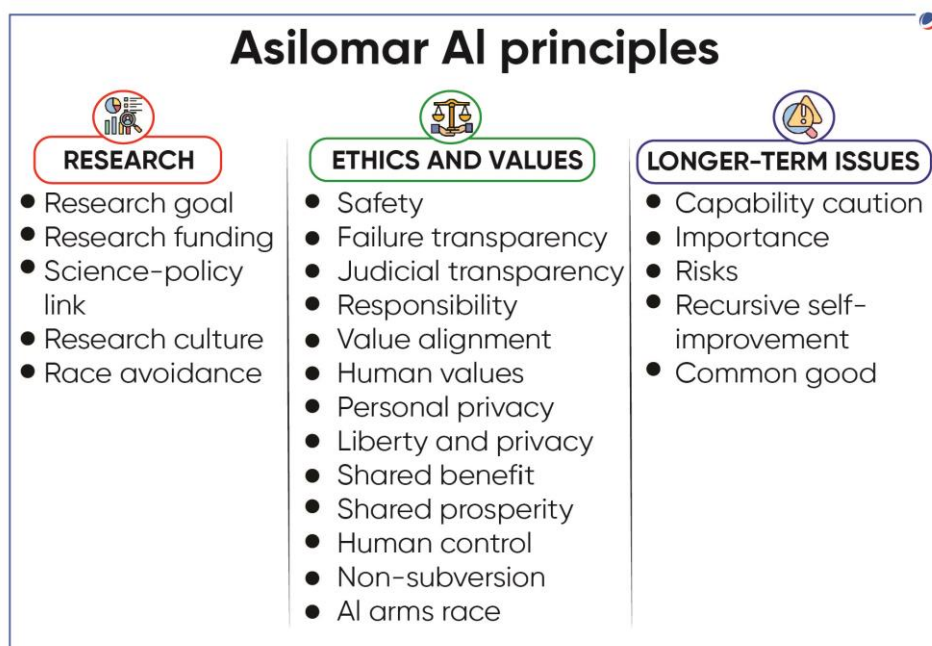
Balancing the interests of stakeholders can be challenging, but it's essential to create a framework that ensures **AI technologies are developed and deployed** in ways that **protect and promote human rights**.

Check your Ethical Aptitude

Self-driving cars have the potential to revolutionize transportation by reducing accidents, traffic congestion, and fuel consumption. These vehicles use artificial intelligence and sensors to navigate without human intervention, making real-time decisions based on their programming and data from their surroundings. Imagine a scenario where an autonomous vehicle is driving down a busy urban street. Suddenly, a child runs out onto the road, and the vehicle's sensors detect this. The AI in the car has to make a split-second decision:

Option 1: The car can swerve to avoid the child but risk colliding with a group of pedestrians on the sidewalk, potentially causing harm or death to multiple people.

Option 2: The car can continue on its path and hit the child, minimizing the risk to pedestrians on the sidewalk.

On the basis of the case study answer the following questions:

- What are the ethical considerations?
- What will be the possible option here and provide reasons for that?

10. SCHEMES IN NEWS

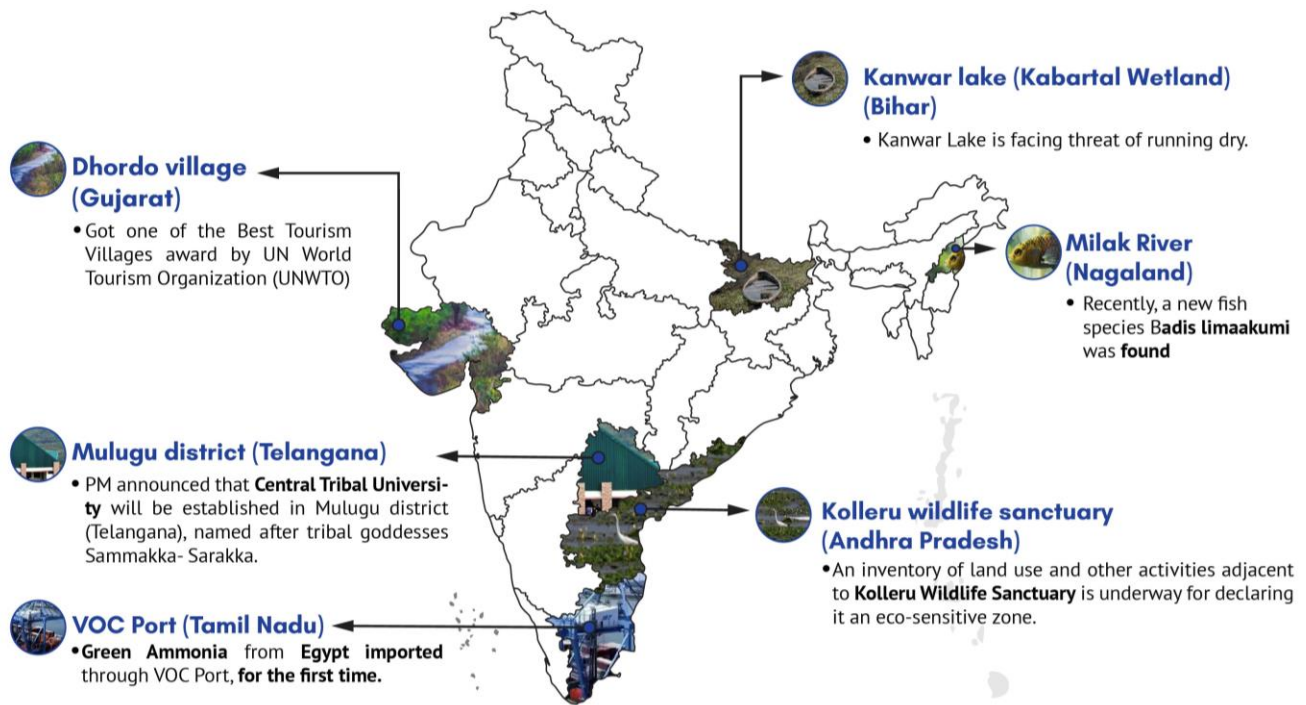## 10.1. PRIME MINISTER STREET VENDOR'S ATMANIRBHAR NIDHI (PM SVANIDHI) SCHEME

Why in the news?

Recently, the State Bank of India released a report analyzing the impact of PM SVANidhi on street vendors.

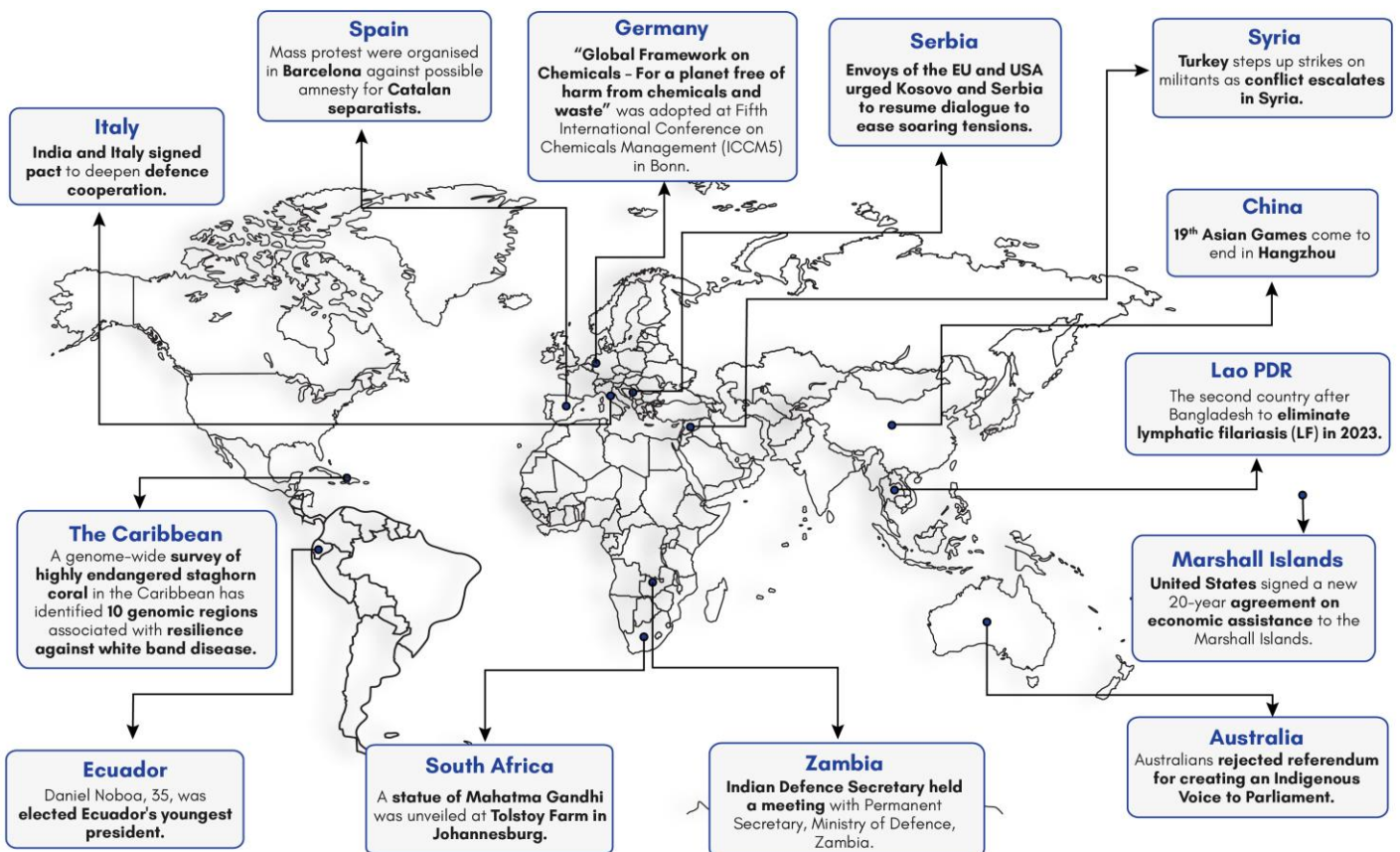| Objective	Salient Features
• Facilitate **collateral free working capital loan** upto ₹**10,000, of 1 year tenure**, with enhanced loan of ₹**20,000** and ₹**50,000** in the second and third tranches respectively, **on repayments of earlier loans.** • **Incentivize regular repayment**, through interest subsidy @ 7% per annum; and • **Reward digital transactions**, by way of cash back upto ₹1,200 per year.	• A **micro-credit scheme** for urban street vendors, **launched in 2020,** to facilitate street vendors in **resuming their livelihood activities**, which were adversely impacted by the COVID-19 pandemic. • **Type**: Central Sector Scheme **Know the term** ○ **Persistency ratio:** In terms of SVANidhi loan repayment, it is the ratio of people repaying the first loan and then taking the second loan. • **Ministry:** Ministry of Housing and Urban Affairs • **Implementation:** Small Industries Development Bank of India (SIDBI) is the implementation partner of the MoHUA. • **Features of the scheme** ○ **Eligibility:** Available to **all street vendors engaged in vending in urban areas** as on or before March 24, 2020. ○ **Criteria for Identification of eligible vendors**: ✓ Street vendors in **possession of Certificate of Vending/Identity Card** issued by Urban Local Bodies (ULBs). ✓ Vendors, who **have been identified in the survey** but have not been issued a Certificate of Vending/Identity Card. ✓ Vendors, left **out of the ULBled identification survey** or who have started vending after completion of the survey and have been **issued Letter of Recommendation (LoR)** to that effect by the ULB / Town Vending Committee (TVC); ✓ The **vendors of surrounding development/ peri-urban / rural areas vending** in the geographical limits of the ULBs and have been issued LoR to that effect by the ULB / TVC. ○ **Eligible state/UTs:** Available for beneficiaries belonging to only those States/UTs that have **notified Rules** under the **Street Vendors** (Protection of Livelihood and Regulation of Street Vending) **Act, 2014.** ○ **Timeline:** Extended till **December 2024.** ○ **Credit Guarantee:** The Scheme has a **provision of Graded Guarantee Cover** for the loans sanctioned. It is administered by **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).** ○ **SVANidhi se Samriddhi programme:** It is an **additional program of PM SVANidhi scheme** ○ It aims to **provide social security benefits to street vendors** for their holistic development and socio-economic upliftment. ○ **Quality Council of India (QCI)** is the **implementing partner** for the programme.

Places in News: India

Kanwar lake (Kabartal Wetland) (Bihar)
- Kanwar Lake is facing threat of running dry.

Dhordo village (Gujarat)
- Got one of the Best Tourism Villages award by UN World Tourism Organization (UNWTO)

Milak River (Nagaland)
- Recently, a new fish species B**adis limaakumi** was **found**

Mulugu district (Telangana)
- PM announced that **Central Tribal University** will be established in Mulugu district (Telangana), named after tribal goddesses Sammakka- Sarakka.

Kolleru wildlife sanctuary (Andhra Pradesh)
- An inventory of land use and other activities adjacent to **Kolleru Wildlife Sanctuary** is underway for declaring it an eco-sensitive zone.

VOC Port (Tamil Nadu)
- **Green Ammonia** from **Egypt imported** through VOC Port, **for the first time.**

Places in News: World

Spain
Mass protest were organised in **Barcelona** against possible amnesty for **Catalan separatists.**

Germany
"**Global Framework on Chemicals – For a planet free of harm from chemicals and waste**" was adopted at Fifth International Conference on Chemicals Management (ICCM5) in Bonn.

Serbia
Envoys of the EU and USA urged Kosovo and Serbia to resume dialogue to ease soaring tensions.

Syria
Turkey steps up strikes on militants as **conflict escalates in Syria.**

Italy
India and Italy signed **pact** to deepen **defence cooperation.**

China
19th **Asian Games** come to end in **Hangzhou**

Lao PDR
The second country after Bangladesh to **eliminate lymphatic filariasis (LF)** in 2023.

The Caribbean
A genome-wide **survey of highly endangered staghorn coral** in the Caribbean has identified **10 genomic regions** associated with **resilience against white band disease.**

Marshall Islands
United States signed a new 20-year **agreement on economic assistance** to the Marshall Islands.

Ecuador
Daniel Noboa, 35, was **elected Ecuador's youngest president.**

South Africa
A **statue of Mahatma Gandhi** was unveiled at **Tolstoy Farm in Johannesburg.**

Zambia
Indian Defence Secretary held a meeting with Permanent Secretary, Ministry of Defence, Zambia.

Australia
Australians **rejected referendum for creating an Indigenous Voice to Parliament.**

Personalities In News

Personality	About	Ethical Values Exhibited by the Personality
Jagadguru Basaveshwara (12th Century)	- He was a **12th century poet and born in Karnataka.** - He was known for **Socio-Religious Reforms, Vachana Literature and Lingayat Movement** in south India. - He **established Anubhava Mantapa** (first Parliament of world) which laid down the **foundation of social democracy.** **Basava Purana,** written by Palkuriki Somanatha in 13th-century, holds full account to Basavanna's life and ideas. - He **rejected gender and caste discrimination,** superstitions and rituals. He was a strong **promoter of ahimsa (non-violence),** and condemned human and animal sacrifices. - He, like Gautama Buddha, taught people how to **live happily in a rational social order** which later came to be known as **Sharana movement.** - His philosophy was based on **principles of Arivu** (true knowledge), **ethos** (right conduct), and **Anubhava** (divine experience).	**Egalitarianism** and **dignity of labour** - He penned down poems to question the social and political order of his time based on hierarchy of status and wealth. - In his teachings, he advocated for the dignity of manual labour and its right to be recognized.
Veerangana Rani Durgavati	**Rani Durgavati** was **born in Chandel Dynasty of Mahoba in Banda,** UP and was married to **Dalpatshah of Gond Dynasty of Garha-Katanga in 1542.** - She took reins of the **Gond Dynasty in 1550** after Dalpatshah's death as the guardian of her son Veer Narayan. **Contributions:** - She constructed **reservoirs** such as Ranital, Cherital and Adhartal and **moved the Capital to Chauragarh** (from Singaurgarh) on the strategic Satpura Hill Range. - She allowed **Acharya Bitthalnath** to establish a seat of the **Pushtimarg Cult** at Garha. **Tarikh-i-Firishta** mentions Durgavati **defeated Baz Bahadur, the ruler of Malwa.** - During her reign, **Akbar** attacked the Gond Empire under the leadership of **Asaf Khan.** - Story of Durgavati was chronicled by **Abul Fazl (Akbar's chronicler) and British Colonel, Sleeman.**	**Visionary Leadership and Courage:** - She demonstrated foresight in governance, enhancing her kingdom's infrastructure and promoting cultural diversity. - She led kingdom and army with valour against formidable adversaries.
Banda Singh Bahadur (1670-1716)	- Baba Banda Singh Bahadur was a **Sikh warrior and a commander of the Khalsa army.** Originally named **Lachman Dev,** he was born in a Hindu family. **Guru Gobind Singh** conferred the title of Banda Singh Bahadur to him. - He **defeated the Mughals** and established the **Khalsa rule in Punjab.** - He **abolished Zamindari system** and introduced the **Nanak Shahi coins.** - He was captured by Mughal ruler **Farrukhsiyar** and his martyrdom took place in Mehrauli.	**Valour and Commitment** - He was the first Sikh military leader to wage an offensive war against the Mughal rulers of India and extended the Sikh territory. - He fought for the righteousness and justice of the common people.

|		
Shyamji Krishna Varma	**Shyamji Krishna Varma (1857- 1930)** • Born in Gujarat, he completed his education in India and taught Sanskrit at the Oxford University. In 1905 he founded **'The India House' and 'The Indian Sociologist'** which acted as a meeting point for radical nationalists among Indian students in Britain. • He **moved to Paris in 1907 avoiding prosecution.** Through **the Indian Home Rule Society,** he criticised British rule in India. • He became the **first President of Bombay Arya Samaj.** • He inspired Veer Savarkar who was a member of India House in London.	**Patriotism and Selflessness** • Inspired by the ideas of National liberation, he decided to dedicate his whole life for working to hold the cause of independent nation.

Dr Sambhu Nath De (1915 – 1985)	• Dr Sambhu was **nominated** a couple of times for **Nobel Prize in Medicine.**
	• He played **a fundamental role in discovering the cholera toxin (CTX).**
	  ▸ CTX, **a complex of six proteins** released by **V. cholerae** (a bacteria causing Cholera) into the **small intestine.**
	  ▸ CTX enters the **intestinal cells,** it triggers **a cascade of intracellular reactions.**
	• He also **hypothesised that cholera bacillus's main** target was the cells lining the small intestine.
	• Previously, **Robert Koch wrongly concluded that V. cholerae** primarily attacked **circulatory system of patient.**
		Innovative Thinking and Dedication:
		
		• Despite facing challenges, his persistent dedication to medical science showcases his commitment to advancing healthcare.

Nanaji Deshmukh (1916-2010)	• He was a **social reformer, educationist and politician.** • He started the country's **first Saraswati Shishu Mandir** at Gorakhpur in 1950 and He was the founder of **Deendayal Research Institute** in Chitrakoot (Madhya Pradesh). ▸ Through DRI, he set up alternative rural development models based on traditional knowledge. • He was also responsible for starting **India's first rural university, Chitarkoot Gramodya Vishwavidyalaya.** • He took part in Bhoodan Movement started by Vinoba Bhave, played role in the **JP Movement** and was founding member of the Jan Sangh.	**Commitment to the cause** • A social reformer and politician from India, he worked in the fields of education, health, and rural self-reliance which showed the way for a new paradigm of empowering those living in villages.

Dr Gopalasamudram Narayana Ramachandran or GNR (1922-2001)	• **GNR** along with Gopinath Kartha, proposed the **'Madras triple helix model', for deciphering the structure of collagen.**
	  ▸ Collagen, **present in the connective tissue of animals,** gives strength and form to all creatures, humans included
	• **Other Contributions:**
	  ▸ Developed a number of **new methods in X-ray crystallography** including the **beta synthesis.**
	  ▸ Established school of research in **molecular biology at Madras University.**
	• **Awards:** Shanti Swarup Bhatnagar award
		Scientific Curiosity and humility
		
		• His scientific curiosity drove his pursuit of knowledge for discovery in structural molecular biology.
		• Despite his ground breaking work and numerous accolades, he remained humble and committed to the advancement of bioinformatics.

WEEKLY FOCUS

Holistic coverage of the issue every week

ISSUE	DESCRIPTION	LEARN MORE
Internationalisation of Rupee: Indian Currency's Global Ascent	Embarking on the path of internationalizing a currency marks a significant stride for any nation, shaping its economic prowess and global financial influence. This document covers the fundamental concepts of currency internationalization, the prerequisites for its successful implementation, and why India has chosen to focus on this endeavour.	
Countering Corruption: India's Ongoing Battle	Corruption, a prevalent challenge in India as in many parts of the world, significantly impacts the country's progress, governance, and societal fabric. Understanding it's complexities and implications is therefore vital. This document provides a thorough analysis of corruption in India, and the root causes. It also explores the obstacles hindering India's efforts to effectively combat corruption.	
India: Pharmacy of the World	The Indian pharmaceutical industry in the recent years has grown tremendously and made a remarkable impression in the global market. This document unravels the fascinating journey of India's pharmaceutical industry and highlights India's pivotal role and significant contributions to global well-being. While exploring the challenges, the document also discusses future potential of the sector.	
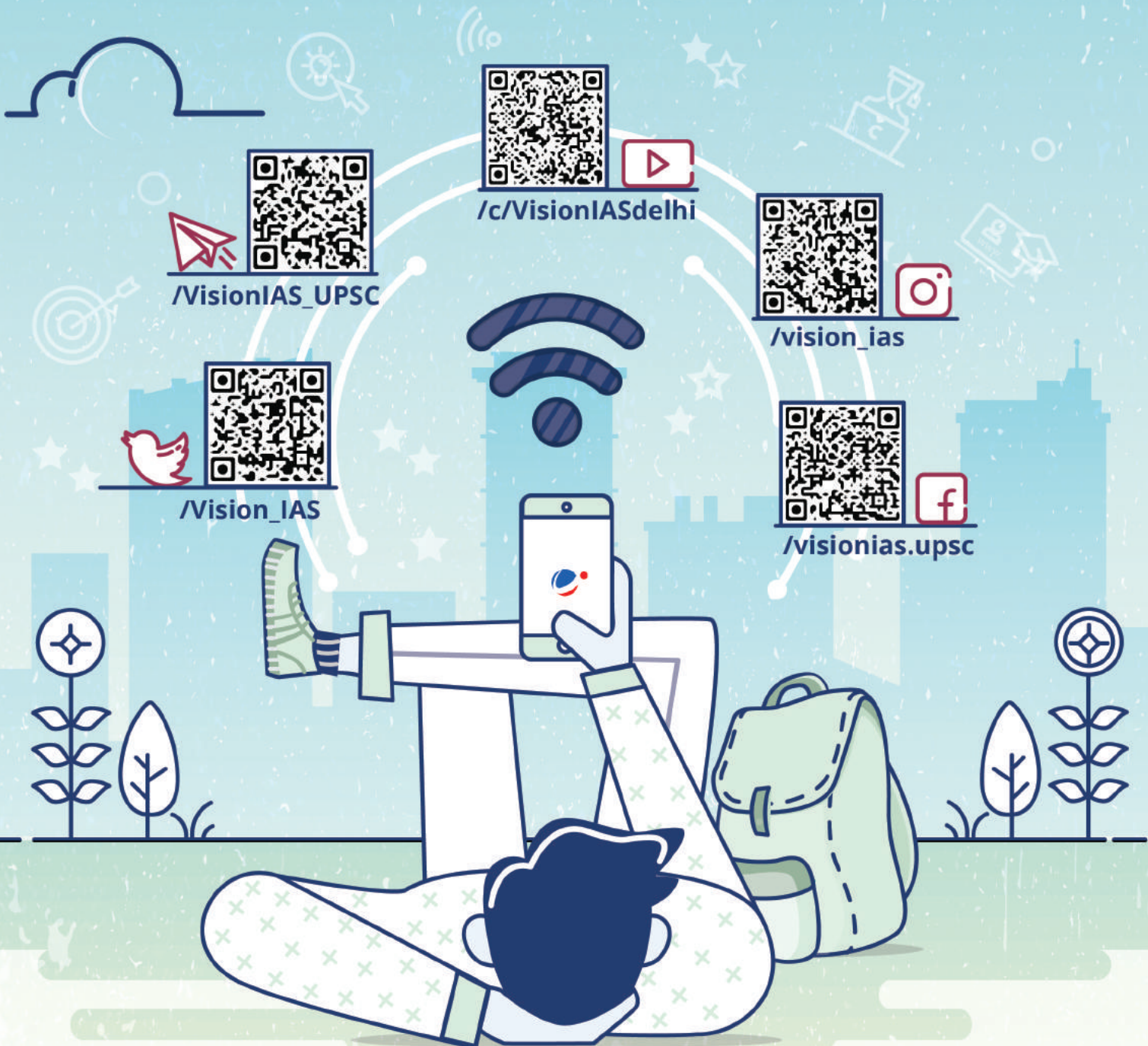
Heartiest Congratulations
to all Successful Candidates

39 in Top 50 Selections in CSE 2022

1 AIR — Ishita Kishore

2 AIR — Garima Lohia

3 AIR — Uma Harathi N

8 in Top 10 Selections in CSE 2021

2 AIR — ANKITA AGARWAL

3 AIR — GAMINI SINGLA

4 AIR — AISHWARYA VERMA

5 AIR — UTKARSH DWIVEDI

6 AIR — YAKSH CHAUDHARY

7 AIR — SAMYAK S JAIN

8 AIR — ISHITA RATHI

9 AIR — PREETAM KUMAR

1 AIR — SHUBHAM KUMAR

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