



# THE RECITALS

Current Affairs (December 2022)



## Editor's Cut

- Organ Donations
- Migration and Development Brief
- Digital e-Rupee
- National Judicial Commission Bill 2022
- Multi-State Cooperative Societies Bill, 2022
- Conjugal Rights of Prisoners
- Review Petition
- Upholding the autonomy of Election Commission
- Asia and Pacific Regional Meeting (APRM) of ILO
- Election in Nepal
- Twitter Files
- Drones originating from Pak Rangers outposts
- COP15 to Convention on Biological Diversity
- Dhara Mustard Hybrid-11 (DMH-11)

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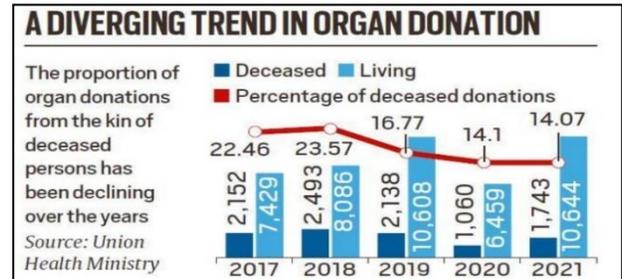
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As per data shared in Parliament by the Union Health Ministry, after a dip in 2020 owing to the pandemic, organ donations picked up again in 2021 with 12,387 organs harvested from deceased as well as living donors. However, the number of deceased donations has remained lower than the number of donations from living persons.

- Deceased donation - organs donated by the kin of those who suffered brain death or cardiac death.

## Statistics

- Of the 12,387 organs — kidney, liver, heart, lungs, and pancreas among others — harvested in 2021, only 1,743 (approx 14%) were from deceased donors.
- The numbers harvested in 2021 were close to the highest in the last five years (12,746, in 2019).
- The numbers are skewed in favour of living donations — organs like kidney and liver donated by living family members.
- There is also a geographical skew in deceased donations.
  - All but two deceased organ donations in 2021 were in 15 states.
  - The top five — Telangana, Tamil Nadu, Maharashtra, Gujarat, and Karnataka — accounting for more than 85% of the total.
  - Two organs were harvested from a deceased donor in Goa.
  - One reason for the geographical skew could be that most organ transplant and harvesting centres are concentrated in these geographies.
- India has an organ donation rate of about 0.52 per million population.
  - In comparison, the organ donation rate in Spain, the highest in the world, is 49.6 per million population.



## Need To Increase Deceased Donations

- **Increased Demand**
  - There is a gap in the number of organs needed and the number of transplants that happen in India.
    - In absolute numbers, India conducts the third highest number of transplants in the world.
    - Of the estimated 1.5-2 lakh persons who need a kidney transplant every year, only around 8,000 get one. And of the 10,000 who need a heart transplant, only 200 get it.
  - Demand is on the rise because of the increasing prevalence of lifestyle diseases.
  - Besides, organs like heart and lungs can be retrieved only from deceased donors.
- **Precious resources are wasted**
  - Without deceased donations, a precious resource is wasted.
  - Nearly 1.5 lakh persons die in road traffic accidents every year in India, many of whom can ideally donate organs.

## Regulatory Framework In India

- **Legislation**
  - In 1994, Transplantation of Human Organs Act (THOA) was promulgated by Government of India.
  - The Transplantation of Human Organs Rules followed in 1995 and were last amended in 2014, increasing the scope of donation and including tissues for transplantation.

- The act made commercialization of organs a punishable offence and legalized the concept of brain death in India allowing deceased donation by obtaining organs from brain stem dead person.
- **Institution**
  - **National Organ and Tissue Transplant Organization (NOTTO)** is a national level organization set up under Ministry of Health and Family Welfare.
  - Besides laying down policy guidelines and protocols for various functions, it coordinates all the activities associated with organ donation at national level.

### Reasons For Low Organ Donation Rate In India

- **Existing System**
  - In India a person has to register to be an organ donor and the family has to consent to it after death.
    - Even with a donor card, the family's consent is sought for organ donation after the death of the individual.
    - If the family refuses, the organs are not harvested.
  - On the other hand, Spain has an opt-out system where a person is presumed to be a donor unless otherwise specified.
- **Availability of Transplant Coordinator**
  - Having a medically qualified transplant coordinator helps in organ donation.
    - A transplant coordinator is the patient's link to the transplant hospital.
    - They also serve as information resources for patients and families after the transplant.
  - India has smaller number of such coordinators.
- **Transport Infrastructure**
  - Good transport networks between cities and states can help boost organ donation. There is need to improve coordination among the Road, Railway, and Aviation Ministries to facilitate the creation of green corridors for faster transportation of organs.
- **Less Awareness:** There is need for more awareness about organ transplant so that people register as donors.



## Migration and Development Brief

- The World Bank released the **Migration and Development Brief**. Produced twice a year, the brief provides updates on developments in the area of migration and remittance flows and related policies over the past six months.
- It also provides medium-term projections of remittance flows to developing countries.

### Key Findings

- The top five recipient countries for remittances in 2022 are **expected** to be India, followed by Mexico (USD 60 billion), China (USD 51 billion), Philippines (USD 38 billion) and Egypt (USD 32 billion).
- **India's remittance** will grow 12% from 7.5% last year, **resulting in \$100 billion flow** as compared to \$89.4 billion in 2021.

### Remittance

- It is a transfer of money, often by a foreign worker to an individual in their home country.
- The World Bank defines it as the sum of worker's remittances, compensation of employees, and migrants' transfers as recorded in the IMF Balance of Payments.
- Remittances are a vital source of household income for low- and middle-income countries.
- Money sent home by migrants competes with international aid as one of the largest financial inflows to developing countries.
- Higher remittances improve nutritional outcomes by increasing investments in higher education, a fall in these remittances puts these outcomes at risk.



- Despite reaching a historic milestone at \$100 billion and retaining its position as the top recipient of remittances globally, India's remittance flows are expected to account for **only 3% of its GDP in 2022**.

### Regional Remittance Flows

- Despite global challenges in 2022, remittances to low and middle-income countries will grow by 5% to \$626 billion.
- Growth in remittance flows is estimated at 9.3% for Latin America and the Caribbean, 2.5% in Middle East and North Africa, and 0.7% in East Asia and the Pacific.
- Led by strong performances in **India and Nepal**, remittance flows to **South Asia** this year will grow 3.5% to reach \$163 billion in 2022.
- However, there is a large disparity across countries in South Asia from India's projected 12% gain to Nepal's 4% increase, to an aggregate decline of 10% for the region's remaining countries.

### Reasons For High Remittance To India

#### Shift in Destination

- It was observed that there was a **gradual shift in Indian migrants' key destinations**.
- From largely low-skilled, informal employment in the Gulf Cooperation Council (GCC) countries to a dominant share of high-income countries like United States, United Kingdom, Singapore, Japan, Australia and New Zealand.
- The **structural shift in qualifications and destinations** has accelerated growth in remittances tied to high-salaried jobs, especially in services.
- During the pandemic, Indian migrants in high-income countries worked from home and benefitted from large fiscal stimulus packages.
- As the pandemic eased, the **wage hikes and record-high employment conditions** helped migrants send money home despite high global inflation.
- Between 2016-17 and 2020-21, the share of remittances from the US, UK and Singapore increased from 26% to over 36%, while the share from the 5 GCC countries (Saudi Arabia, UAE, Kuwait, Oman and Qatar) fell from 54 to 28%.

#### GCC's Economic Conditions

- Economic conditions in GCC (30% share of India's remittances) also played out in India's favour.
- The majority of the GCC's Indian migrants are blue-collar workers (manual laborers) who returned home during the pandemic. **Vaccinations and the resumption of travel** helped more migrants to resume work in 2022 than in 2021.
- **GCC's price support policies kept inflation low in 2022**, and higher oil prices increased demand for labour.
- This enabled Indian migrants to increase remittances and counter the impact of India's record-high inflation on the real incomes of their families.

#### Depreciation of Rupee

- Depreciation of the Indian rupee to the US dollar — it fell 10% between January and September 2022 — may have also proven to be advantageous for Indian migrants and increased remittance flows.

### Future Outlook

- Growth in remittances is expected to moderate to 2% in 2023, as GDP growth in high-income countries continues to slow.

- Downside risks remain substantial, including a further deterioration of the war in Ukraine, volatile oil prices and currency exchange rates, and a deeper-than-expected downturn in major high-income countries.
- The growth of remittance flows into South Asia in 2023 is expected to slow to 0.7%. Decline in economic growth in the GCC coupled with a fall in oil prices will further pull remittance flows down to all South Asian countries.
- Remittance flows in India, specifically, are predicted to decrease due to inflation and an economic slowdown in the United States.

### Way Ahead

- Due to the growing significance of remittance as a source of external financing for low- and middle-income countries, there is a need for better collection of data on remittances, in terms of frequency and timely reporting.
- To keep remittances flowing, especially through digital channels, providing access to bank accounts for migrants and remittance service providers is a key requirement.
- Policy responses also must continue to be inclusive of migrants especially in the areas of protection from underpayment.
- Facilitating remittances to provide relief to strained household budgets should be a key component of government policies to support a global recovery.



## Digital e-Rupee

- The RBI recently launched the central bank digital currency (CBDC), known as **digital Rupee-Retail (e₹-R)**, on a pilot basis.
- The pilot would initially cover four cities — Mumbai, New Delhi, Bengaluru and Bhubaneswar — and later extend to Ahmedabad, Gangtok, Guwahati, Hyderabad, Indore, Kochi, Lucknow, Patna and Shimla.
- Four banks will be involved in the controlled launch in these four cities: State Bank of India, ICICI Bank, Yes Bank, and IDFC First Bank.
- It would cover select locations in a closed user group (CUG), comprising participating customers and merchants.

### Types of e-rupee

- Based on the usage and the functions performed by the digital rupee and considering the different levels of accessibility, RBI has demarcated the digital rupee into two broad categories — **retail and wholesale**.

Retail e-rupee	Wholesale e-rupee
<ul style="list-style-type: none"> <li>• In effect, the retail e-rupee (e₹-R) will be <b>an electronic version of cash</b>, and would be in the form of a <b>digital token</b>.</li> <li>• It will be potentially available for use by all — the private sector, non-financial consumers and businesses.</li> <li>• The e₹-R is recognised as <b>legal tender</b> by the RBI, and thus has to be accepted by everyone in the country as a <b>medium of exchange</b>.</li> <li>• It will be issued in the same denominations as paper currency and coins, and will be <b>distributed through intermediaries, i.e., banks</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• The pilot in wholesale segment, known as the <b>Digital Rupee -Wholesale (e₹-W)</b>, was launched in November, 2022. Its use case is limited to: <ul style="list-style-type: none"> <li>➤ the <b>settlement of secondary market transactions in government securities</b>.</li> </ul> </li> </ul>

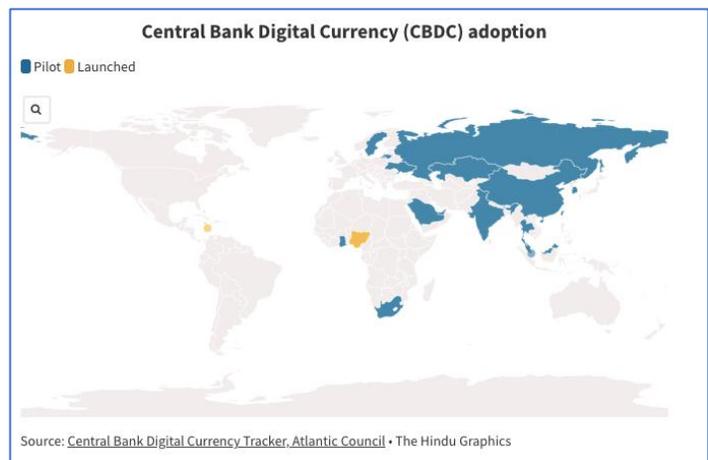
<ul style="list-style-type: none"> <li>• It is, however, different from deposits held in a bank. Unlike deposits which earn interest, the <b>digital rupees in the wallet will not earn any interest</b> by the central bank. Deposits held in banks can be converted into digital rupees and vice-versa.</li> <li>• Users will be able to transact with e₹-R through a <b>digital wallet</b> offered by the participating banks. Transactions can be both <u>Person to Person (P2P) and Person to Merchant (P2M)</u>.</li> <li>• It offers features of physical cash like <b>trust, safety and settlement finality</b>.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Use of (e₹-W), is expected to make the <b>inter-bank market</b> more efficient.</li> <li>• Settlement in central bank money would <b>reduce transaction costs</b> by pre-empting the need for settlement guarantee infrastructure or for collateral to reduce settlement risk.</li> </ul>
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### Advantages of e-rupee

- It will help to **reduce operational costs** involved in physical cash management, encouraging financial inclusion, bringing resilience, efficiency and innovation in the payments system.
- The digital rupee could also play a crucial role in India's transition towards a **cashless society**.
- It will add efficiency to the settlement system and **boost innovation in cross-border payments space** and provide the public with uses that any private virtual currencies can provide, without the associated risks.
- The RBI has repeatedly highlighted concerns over **money laundering, terror financing, tax evasion**, etc with private cryptocurrencies like Bitcoin, Ethereum etc. Introducing its own CBDC will help to address these concerns.

### Criticisms of CBDCs

- CBDC ecosystems may be at similar risk for cyber-attacks as the current payment systems are exposed to. Further, in countries with lower financial literacy levels, the increase in digital payment related frauds may also spread to CBDCs.
- Introduction of CBDCs could also **disrupt the banking system**. When interest rates offered by banks are low, people may want to convert their bank deposits into digital currencies since they would not lose much on the interest income by making the shift.



- This can cause the cash holdings of banks to drop and **limit banks' capacity to create loans**. This is because, the ability of banks to create loans is influenced by the amount of cash they hold in their vaults.
- As digital currencies give central banks the power to supervise economic activity, it could act as a limit on economic growth, if legitimate economic activities are deemed illegal by governments.
- The future of CBDCs as an alternative to private cryptocurrencies may also be overblown.
- Private cryptocurrencies have found demand among certain investors not simply because they are digital. Rather, they are thought to be better stores of value, with more stable purchasing power than fiat currencies.

### Future Outlook

- The pilot will test the robustness of the entire process of digital rupee creation, distribution and retail usage in real time.

- Different features and applications of the e₹-R token and architecture will be tested in future pilots, based on the learnings from this pilot

### Global Adoption Of Digital Currencies

- As of July 2022, there were nearly 100 digital currencies by various global central banks in research or development stages and two fully launched.
- The eNaira in Nigeria, unveiled in October 2021, and the Bahamian sand dollar, which made its debut in October 2020.
- Countries have different motives for exploring and issuing CBDCs, but in the case of The Bahamas, the need to serve unbanked and under-banked populations across more than 30 of its inhabited islands was a primary driving force.



## National Judicial Commission Bill 2022

The National Judicial Commission Bill (NJAC) was introduced in Rajya Sabha to regulate the appointment of judges.

**About The Bill:** It is a private member's bill and aims to -

- **Regulate the procedure** to be followed for recommending people for appointment as the Chief Justice of India and other judges of the Supreme Court and Chief Justices and other judges of High Courts.
- Regulate their transfers.
- Lay down judicial standards and provide for accountability of judges.
- Establish credible and expedient mechanism for investigating individual complaints for misbehavior or incapacity of a judge of the apex court or of a high court and to regulate the procedure for such investigation.
- Make a proposal for an **address by parliament to the President** in relation to procedure for removal of a judge and for related matters.

### History

- Parliament in 2014 passed the **Constitution (99<sup>th</sup> Amendment) Act, 2014** along with the **National Judicial Appointments Commission Act, 2014** for creating an independent commission to replace the collegium system.
- The Constitution (99<sup>th</sup> Amendment) Act introduced three key articles 124 A, 124B, and 124C and amended clause 124(2).
  - a. Article 124A- created NJAC.
  - b. Article 124B- vested NJAC with power to make appointments to Supreme Court and various High Courts.
  - c. Article 124C- authorized the Parliament to make laws to regulate NJAC's functioning.
- NJAC was to be composed of:
  - a. Chief Justice of India as ex-officio chairperson
  - b. Two senior-most supreme court judges as ex-officio members
  - c. Union minister of law and justice as ex-officio member

- d. Two eminent persons from civil society (to be nominated by a committee consisting of the Chief Justice of India, Prime Minister of India and the Leader of Opposition in the Lok Sabha; one of the eminent persons to be nominated from SC/ST/OBC/minorities or women)
- The Chief Justice of India and Chief Justices of the high courts were to be recommended by the NJAC based on seniority while SC and HC judges were to be recommended based on ability, merit, and “other criteria specified in the regulations”.
- The Act empowered any two members of the NJAC to veto a recommendation if they did not agree with it.
- It was challenged in the Supreme Court which, in 2015, struck down NJAC and 99<sup>th</sup> Amendment.

### Why Was NJAC Challenged In Court

- The Supreme Court Advocates-on-Record Association (SCAORA) filed a plea against both the bills terming them to be *unconstitutional* and *invalid*.
- It argued that-
  - a. Creation of NJAC took away the “primacy of the collective opinion of the Chief Justice of India and the two senior-most Judges of the Supreme Court of India” as their collective recommendation could be *vetoed or “suspended by majority of three non-Judge members”*.
  - b. It “severely” damaged *the basic structure of the Constitution*, of which the *independence of the judiciary* in appointing judges of the higher judiciary was an integral part.
    - i. **Independence of Judiciary**- This concept was derived from the theory of separation of powers enshrined in **Article 50**.
    - ii. **Basic Structure of Constitution**- It is a product of the ***Kesavananda Bharati judgement (1973)*** in which the court held that Constitution could not be read in a manner that destroyed or infringed its basic structure.
  - c. The NJAC Act was “void” and “ultra vires” the Constitution as it was passed in both Houses of the parliament when Articles 124(2) and 217(1) as originally enacted were in force, and the 99th Amendment had not received Presidential assent.
- **Unworkable appointment process**- under Article 124A, the NJAC had an even number of six members, but its chairperson had no casting vote.
- The eminent persons to be nominated as members to select Supreme Court or high court judges needed no connection with the law and were not required to have an expertise in the matter.
- Section 5(1) of the act required NJAC to recommend the senior-most judge of the Supreme Court as the Chief Justice of India “if he is considered fit to hold the office”. But neither the 99th Amendment nor the NJAC Act had any prescribed criteria of what constituted fitness to hold office and on what ground could the senior-most judge be declared “unfit”.
- The act empowered the Parliament to make regulations regarding the criteria and procedure to appoint SC and HC judges. It also empowered it to nullify these regulations or modify them. This made a complete mockery of the appointment process.

PROs of NJAC	CONS of NJAC
It will bring transparency and accountability in the appointment process.	It will jeopardize the independence of judiciary as guaranteed under the collegium system.
It will bring integrity between the judiciary and executive.	It will limit the judiciary in scrutinizing the executive’s malafide actions and its overreach.
Promote diversity in the composition of judiciary.	
Strengthen the quality of appointments and meritorious candidates will be given a chance.	



# Multi-State Cooperative Societies Bill, 2022

The Lok Sabha has referred the Multi-State Co-operative Societies (Amendment) Bill 2022 to a joint committee of Parliament. This bill amends the Multi-State Cooperative Societies Act, 2002.

## Background

- India's cooperative movement was formalized at the end of the 19th century, inspired by the German model of agricultural credit banks.
- In 1904, the British government enacted the Cooperative Credit Societies Act. This Act dealt solely with the extension of credit; the sector was later opened to other activities in 1912.
- 1919 Administrative reforms transferred the control of cooperatives to provinces.
- Post-Independence, cooperatives were placed on the State list.
- They came to be considered important instruments of socio-economic development and became an essential part of the initial Five-Year Plans.
- States made their own laws to regulate cooperatives within their jurisdiction, but the Multi-State Co-operative Societies (MSCS) Act (amended in 2002) enacted by Parliament in 1984 consolidated different state laws at the central level.
- **Issues with Cooperatives:**
  - Increased mismanagement and corruption with increased government and legislative control.
  - Given preference in development schemes for dispensing patronage to the supporters of ruling political parties, either by way of nomination to governing boards or sanctioning schemes specific to the cooperatives.
  - State governments directly intervened in the working of cooperatives which were legally autonomous by contributing to the **share capital** of cooperatives and providing various forms of financial assistance.
  - Trust issue among the MSCS.
- **Multi-State Cooperative Societies Act, 2002:**
  - This act consolidated and amended the laws relating to cooperative societies.
  - It facilitated the voluntary formation and democratic functioning of cooperatives as people's institution based on self-help and mutual aid.
  - Provided them with functional autonomy.
  - It applied to all cooperative societies registered under the Cooperative Societies Act, 1912 or any other state law or the Multi-State Cooperative Societies Act, 1984 and to all multi-state cooperative societies.
  - These societies consisted of Board of Directors from all the States which collectively operate and control all finances and administration functions.

## Cooperatives

- Cooperatives are people-centered enterprises jointly owned and democratically controlled by their members.
- Cooperatives in India range from those providing **credit** to those producing, procuring, or marketing products like fertilizers, milk, sugar, and fish. For example- IFFCO, Amul.
- Multi-State Cooperatives are the ones which operate in more than one state and are registered with the Central Registrar.

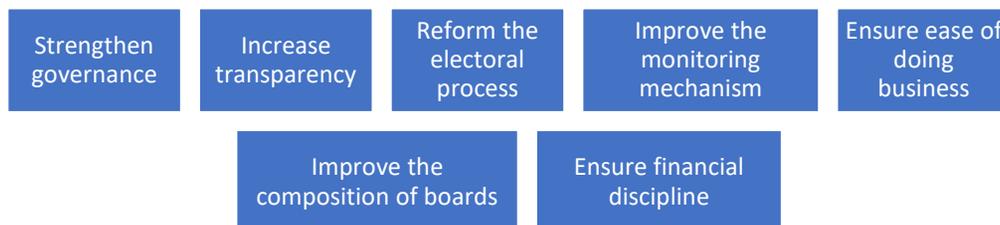
## Related Constitutional Provisions

- 97<sup>th</sup> Constitutional Amendment Act, 2011
- Article 19(1)(c)- Right to form cooperative societies.
- Article 43B under DPSP- Promotion of Cooperative Societies
- Article 243 ZH to 243 ZT under PART IX B of constitution.

- There are close to 1,500 Multi-State Cooperative Societies (MSCSs) registered in India, the highest number being in Maharashtra.
- Many MSCSs are credit societies, while agro-based societies, dairies and banks are also sizeable in number.

### Multi State Cooperative Societies Bill, 2022

**Objectives-** The bill seeks to:



### Key Provisions

<b>Registration</b>	<ul style="list-style-type: none"> <li>• The Central Registrar should dispose of the application for registration of MSCS within a period of <b>four months</b> from the date of receipt.</li> <li>• If the Central Registrar refuses to register an MSCS, he should specify it with reasons within four months of receiving the application.</li> </ul>
<b>Amalgamation of Cooperative Societies</b>	<p>The bill allows “<b>any</b>” cooperative society to merge into an existing multi-state co-operative society by a resolution passed by a majority of not less than <b>two-thirds of the members present and voting</b> at a general meeting of such society.</p> <ul style="list-style-type: none"> <li>• At present, only MSCS can amalgamate themselves and form a new MSCS.</li> </ul>
<b>Disqualification for Being a Board Member</b>	<p>No member of any MSCS or nominee of a member, society or a national co-operative society shall be eligible for being chosen as a member of the board if-</p> <ul style="list-style-type: none"> <li>✓ He has been judged to be insolvent or of unsound mind by a competent court.</li> <li>✓ Any amount is due against him under a decree, decision or order.</li> </ul>
<b>Cooperative Election Authority</b>	<ul style="list-style-type: none"> <li>• It seeks to establish a “cooperative election authority” to bring “electoral reforms” in the cooperative sector.</li> <li>• The authority will consist of a <i>chairperson, a vice-chairperson and a maximum of three members to be appointed by the Centre.</i></li> <li>• All the members will hold office for 3 years or until they attain the age of 65 years (whichever is earlier) and shall be eligible for re-appointment.</li> <li>• Functions of election authority: Conduct elections, Supervise and control the preparation of electoral rolls.</li> </ul>
<b>Appointment of Auditors</b>	<ul style="list-style-type: none"> <li>• Every MSCS will appoint an auditor at each annual meeting from a panel of auditors approved by the Central Registrar.</li> <li>• The bill proposes to insert a new Section 70A relating to <b>concurrent audit</b> for such multi-state societies with an annual turnover or deposit of more than the amount as determined by the Centre.</li> </ul>
<b>Winding up of MSCS</b>	<p>If the Central Registrar, after an audit, is of the opinion that society ought to be wound up, he may after giving the society a reasonable opportunity of making its representations direct it to be wound up.</p>
<b>Redressal of Complaints</b>	<ul style="list-style-type: none"> <li>• It proposes to appoint one or more “<b>cooperative ombudsman</b>” with a territorial jurisdiction to inquire into members’ complaints regarding:</li> </ul>

	<ul style="list-style-type: none"> <li>○ Their deposits.</li> <li>○ Equitable benefits of society's functioning.</li> <li>○ Issues affecting the individual rights of the members.</li> </ul> <ul style="list-style-type: none"> <li>● After receiving a complaint, the ombudsman needs to complete the inquiry and adjudicate within a period of <b>three months</b>.</li> <li>● It may issue necessary directions to the society during inquiry which shall be bound to comply with the same within a period of <b>one month</b> from the date of issuance of such directions.</li> <li>● Appeals against the directions of the Ombudsman may be filed with the Central Registrar within a month.</li> </ul>
<b>Cooperative Rehabilitation, Reconstruction and Development Fund</b>	<ul style="list-style-type: none"> <li>● It seeks to establish a fund for the revival of <b>sick multi-State co-operative societies</b> and for their development. A sick MSCS is the one which has: <ul style="list-style-type: none"> <li>○ Accumulated losses equal to or exceeding the total of its paid-up capital, free reserves and surpluses at the end of any financial year.</li> <li>○ Suffered cash losses for the past two years.</li> </ul> </li> <li>● MSCSs, which are in profit for the preceding three financial years, will contribute either <b>one crore rupees or one per cent of their net profits</b>, whichever is less to this fund.</li> <li>● The Central Government may grant financial assistance to a MSCS for infrastructural requirement which has contributed to the Fund for continuous five preceding financial years provided that at least 50% of the total requirement is borne by the MSCS.</li> </ul>
<b>Board of Directors</b>	<ul style="list-style-type: none"> <li>● The board consists of 21 directors, 2 co-opt directors and functional directors.</li> <li>● The bill seeks to amend the composition of board of directors and states that- <ul style="list-style-type: none"> <li>○ Out of the 21 board members one Member shall be from <u>Scheduled Caste or Scheduled Tribe and two shall be women</u>.</li> <li>○ The 2 co-opt members shall have experience in the field of banking, management, co-operative management and finance or specialization in any other field related to the objects and activities undertaken by the MSCS.</li> </ul> </li> <li>● The members will be <b>ineligible</b> to either vote in any election of office bearers or be elected as office bearers.</li> <li>● It excludes the directors of the MSCS from being present in the discussion or voting of any contract in which they may have any direct or indirect interest.</li> </ul>
<b>Penalties</b>	<ul style="list-style-type: none"> <li>● A MSCS or an officer or member willfully making a false return or furnishing false information, or any person willfully or without any reasonable excuse disobeying any summons, requisition or lawful written order issued, or not furnishing any information required from him shall be punishable with a fine of not less than two thousand rupees extendable up to ten thousand rupees.</li> <li>● The failure to file any return or information will also be an offence and the fine will extend from Rs 5,000 to one lakh rupees.</li> </ul>
<b>Cooperative Information Officer</b>	Will be appointed to provide information on affairs and management of MSCS concerned to members of such society.

## Difference Between New Bill and MSCS Act 2002

MSCS Act 2002	MSCS Bill 2022
Provided for the amalgamation and division of MSCS.	Proposes merger of any cooperative society into an existing MSCS.
Elections to the board were conducted by its existing board.	A Co-operative Election Authority will be established for conducting the elections.
There were no such criteria for board members.	Proposal to include women and Scheduled Caste/Scheduled Tribe members on MSCS boards for promoting equity and inclusiveness.
No such fund existed earlier.	Establishes a rehabilitation, reconstruction and development fund for sick MSCS.
Not found.	Appoints a cooperative ombudsman.
Not found.	Concurrent audit.

### Issues Regarding The Bill

- **Concentration of Power:** The Bill may lead to the concentration of power in the hands of the Centre further impacting the *autonomy* of MSCSs and resulting in potential misuse.
- **Merger beyond Legislative Competency:** The bill allows the merger of any State cooperative society with an existing MSCS. This is beyond the Centre's legislative competency as State cooperatives are out of its domain.
- **Burdens the MSCS:** The rule to contribute either 1 crore or 1% of total net profit to the rehabilitation fund will burden the MSCS and affect their autonomy.



## Conjugal Rights of Prisoners

The Punjab Government has decided to allow conjugal visits for prison inmates supporting the cause of right to life and personal liberty.

### Conjugal Rights

- It is the right of the husband or the wife to the company of their spouse.
- In terms of prison, it is the right to allow an inmate to spend some time in privacy with his spouse within the precincts of a jail.
- Prisoner rights are internationally recognised through the **United Nations Standard Minimum Rules for the Treatment of Prisoners**, the **Universal Declaration of Human Rights**, the **International Covenant on Civil and Political Rights** etc.
- Through such instruments, prisoners are guaranteed the right to life and inherent dignity. The right to maintain family relations including conjugal visits are included in these treaties.

### Are Prisoners Entitled To Such Rights?

- Different prisoners are sentenced differently according to the seriousness of their offense and depending on this, they are assigned some leniencies like lighter jobs, reduction of solitary confinement, reduced fines, etc. based on the law.

- Currently, Mulaqat system is followed in the jail where inmates and their families meet for 20 minutes in noisy and crowded rooms, reducing the possibility of any emotional gain. But the right to have conjugal relations is not supported by any law.
- **Section 59(25) of the Prisons Act, 1894** deals with the rules for the appointment and guidance of visitors of prisoners by the states. But there are no distinct rules supporting conjugal rights in any state-framed visitation rules.
- Sangar open camps in Rajasthan allow selected convicts to reside with their families so that it enhances integration and instills self-discipline and family responsibility.
- Countries like Canada, Germany, Russia, Spain, Belgium, Saudi Arabia, Denmark allows conjugal visits and, to some extent, the US, Brazil and Israel even allow same-sex conjugal visits.

### Is It A Fundamental Right?

Various judgements dealt with this question and gave different opinions. Some of them are:

- ***Sunil Batra vs Delhi Administration (1979, SC)***: The court observed that visit to prisoners by family and friends are relief in isolation and only a dehumanized system can derive delight in depriving prison inmates of this humane amenity.
- ***Jasvir Singh vs State of Punjab***: A couple convicted of murder petitioned to enforce their right to procreate. The primary question in this case before the law was whether the right to conjugality and procreation a part of the right to life? The High Court held that this right to conjugality is available to prisoners under Article 21 but subject to restrictions.
- ***Meharaj vs State (2022)***: The Madras HC in this case while considering the question of whether conjugal rights form part of the right to life and personal liberty guaranteed by Article 21, observed that there must be differential standards in enforcement of Article 21 for law abiders and law violators. It held that even though conjugal visits could not be held as a fundamental right, the prisoner would still be eligible to avail leave for conjugal visits if there are *extraordinary reasons like infertility treatments*.

### Does Denial Of This Right To Prisoners Violate The Rights Of Their Spouse?

When a person is convicted the family goes through several problems like financial troubles, social isolation, loss of respect, etc. It also leads to dissatisfaction of sexual desires and affects the mental balance and health of the spouse. It can also result in adultery and other immoral practices. Thus, denying the prisoner conjugal rights simultaneously violates the rights of their spouse.

### Need for Such Rights

- Conjugal visits are important in preserving **family bonds** and reducing tendencies in prisoners to break prison rules and regulations.
- Psychologists, psychiatrists, prison reforms and academics who endorse a correctional and rehabilitation model for inmates recommend conjugal visits to help an inmate to return to normal life after being released from prison.
- It can result in reduction of HIV / AIDS cases in jails because of sexual intercourse between same gender due to deprivation of conjugal relationship to a prisoner.

### The Punjab Model

- The State guidelines clarify these conjugal visits to be a matter of privilege rather than a right.
- The average time for conjugal visits shall be two hours, allowed once every two months.
- The visiting spouse will have to furnish proof of marriage and medical certificates declaring that he or she is free from HIV or any other sexually transmitted disease, COVID-19 or any other infectious disease.
- The facility will not be extended to high-risk prisoners, terrorists, child abuse and sexual offenders, death row convicts, prisoners who suffer from HIV etc.



# Review Petition

The Supreme Court dismissed a review petition filed by 2002 Gujarat riots victim Bilkis Bano, to review its May 2022 order which allowed the Gujarat government to decide on the request for remission.

**What Is A Review Petition** It is a petition in which the court is requested to review its own decision.

## Constitutional Provision for Review

Any ruling by the Supreme Court is considered final because it provides certainty for deciding future cases but under Article 137 of the constitution, the Supreme Court has the power to review its own judgments or orders providing the legal basis for the filing of “review petition”.

## Review Procedure

- The petition must be filed within **30 days** of pronouncement of the judgment except in cases of death penalty.
- They are heard through “circulation” by judges in their chambers and **not heard in open court**.
- Lawyers usually make their case through **written submissions** and not oral arguments.
- The same judges who passed the original verdict usually hear the review petition.
- Any person aggrieved by a ruling can seek a review and not only parties to the case. But the court does not entertain every review petition filed.

## Review Grounds

- The court has the power to review its rulings only to correct a “patent error” and not “minor mistakes of inconsequential import”.
- The 2013 Supreme Court laid down three grounds for seeking a review:
  - Discovery of new and important matter or evidence which was not within the knowledge of the petitioner or could not be produced by him.
  - A mistake or error apparent on the face of the record.
  - Any other sufficient reason i.e., a reason that is analogous to the other two grounds.
- In another 2013 ruling (**Union of India v. Sandur Manganese & Iron Ores Ltd**), the court laid down nine principles on when a review is maintainable.

## Review v/s Appeal

Review	Appeal
It means re-examining the decisions made by the court itself.	It means asking a higher court to review and if needed, to reverse the decision of the lower court and to turn it in the losing party’s favor after the final judgment has been given.
Grounds for review are limited.	Grounds for appeal are wider.
Article 137 of the Constitution authorizes the Supreme Court of India to revise any judgment it pronounced (or orders made) pursuant to Article 145 of the Constitution.	Article 132 authorizes the Supreme court to hear appeals against the decisions made by high courts.
It is referred to the same judges and court.	It is referred to different judges of a higher court.
A decision can be reviewed only once.	There are three appeals:

- First Appeal: From District Magistrate Court/Subordinate Judge's Court to District Judges.
- Second Appeal: From District Judge's Court to the High Court.
- Third Appeal: From the High Court to the Supreme Court.

### Successful Review Petitions

- **Subhash Kashinath Mahajan v The State of Maharashtra:** A 2-Judge Bench decided to do away with the bar on grant of anticipatory bails in cases of atrocities under the SC/ST Prevention of Atrocities Act, 1989 and further laid down guidelines for the purpose of making arrests under the Act. In view of the resultant public outcry, the Centre approached the Supreme Court seeking review of its decision. The Supreme Court allowed the review petitions and overturned its March 2018 judgment effectively sanctioning the amendment act.
- **Sabarimala Verdict:** The review petition was allowed but referred to a larger bench.

### Curative Petition

- The court came up with the concept of Curative Petition in **Roopa Hurra v Ashok Hurra (2002)**.
- It is the one which can be heard after dismissing a review petition to prevent its abuse.
- A curative petition is entertained on very narrow grounds like a review petition and is generally not granted an oral hearing.

### EXTRA MILE

**Recusal of Judges:** SC's Justice Bela M Trivedi recused from hearing Bilkis Bano's challenge against the premature release of 11 murder-gangrape convicts.

#### What Is Meant By Recusal?

It means removal of oneself as a judge or policymaker in a particular matter due to conflict of interest. It enables a Judge appointed to hear a case to step down from that case and leave the disposition of it to another colleague or colleagues.

#### Origin

- The Third Schedule of the Constitution of India contains the oath of judges which highlights that a judge will "...perform the duties of the office without fear or favour, affection or ill-will". This very categorically provides for the premise on which the principle of recusal is based.
- Hon'ble Justice Kurian Joseph has affirmed the same and said that "*It is the constitutional duty, as reflected in one's oath, to be transparent and accountable, and hence, a judge is required to indicate reasons for his recusal from a particular case*".

**Reasons:** Conflict of interests like:

- Personal connection to one of the parties to the case.
- Personal knowledge of the facts of the case.
- Familial relationship with one of the attorneys.
- Financial interest in the result of the case and other.

#### Types

- **Automatic Recusal:** When a judge himself withdraws from a case.
- **Objection by Parties:** When one of the party's points to possible bias or personal interest of the Judge in the case and requests his recusal. But the prerogative of recusal is vested in the Judge. No Judge can be forced to withdraw from a case by another party.

## Concerns Raised

- **No Codified Rules:** related to the recusal of judges which lay down the minimum requirement or procedure for the determination of impartiality. It is upon the sole discretion and consciousness of the judge to decide on such matters.
- **Undermines Judicial Independence:** Allows litigants to pick a branch of their own choice.
- **Delays Justice:** once a judge recuses himself from a case, the proceedings are halted until a new bench is formed, thus delaying the process of delivering justice.

{For more about Bilkis Bano case, refer The Recitals-August 2022}



# Upholding The Autonomy Of Election Commission

The supreme court (SC) questioned the process of appointment of new Election Commissioner (EC) Arun Goel at “lightning speed” of 24 hours.

## About the Election Commission of India



- It is an autonomous and permanent constitutional body responsible for organizing free and fair elections in the Union and States of India.
- Article 324 empowers it to direct, monitor, and control elections of Parliament, State Legislatures, President of India and Vice-President of India.
- Initially, it was a one-member body with only the Chief Election Commissioner (CEC) as its sole member. Later, two more election commissioners were appointed to the body and the Election Commission became a multi-member body

## Powers and Responsibilities

Determining the territorial areas of the Electoral Constituencies throughout the country.



Preparing and revising electoral rolls and registering all eligible voters periodically.



Notifying the schedules and dates of elections and scrutinizing nomination papers.



Recognizing various political parties and allocating them election symbols.



Advisory jurisdiction in the matter of post-election disqualification of sitting members of Parliament and State Legislatures.



Issuing the Model Code of Conduct during elections.



## Appointment

- **Constitutional Provision:** Article 324(2) of the Indian Constitution provides that the Election Commission shall consist of the Chief Election Commissioner and such number of other Election Commissioners, as the President may from time-to-time fix.
  - Their appointment shall be subject to **law made by Parliament**. However, such a law has not been enacted yet.
  - In the absence of such a law, the President has been making appointments as per the recommendations of the Prime Minister.

- Thus, the power of appointing the Chief Election Commissioner (CEC) and the two Election Commissioners (EC) lies with the President of India.
- **Procedure:**
  - A list of serving and retired officials in the position of Secretaries is prepared.
  - Based on this, a panel of names is prepared for consideration of the Prime Minister and President.
  - The PM, after considering the panel, recommends one name to the President.
  - The appointment of CEC follows seniority and the senior among the two ECs goes on to become the CEC.
- **Tenure:** The CEC and ECs are appointed by the President to a tenure of six years, or up to the age of 65 years, whichever is earlier.
- **Qualifications:**
  - There is not much mentioned about the qualifications. As they have the stature of a Supreme Court Judge, it is conventionally the retired cabinet secretary or senior most civil servants who serve the position.
  - The SC in Bhagwati Prashad Dixit Ghorewala vs Rajiv Gandhi case in 1986 rejected the notion that the candidate needs to have a qualification like a SC judge.

### Removal

- The CEC and the two other ECs are governed by different rules.
- While the CEC enjoys the same security against removal as a judge of the Supreme Court.
  - They can only be removed through a resolution passed by a special majority of Lok Sabha and Rajya Sabha members (majority of two-third members present and voting supported by more than 50% of the total strength of the house).
- The conditions of service of the CEC cannot be varied to their disadvantage after their appointment.
- The ECs can be removed from office on the recommendation of the CEC to the President, as stated under Article 324(5).
  - ✓ In *T.N. Seshan versus Union of India* (1995), the SC held that the recommendation for removal *must be based on intelligible and cogent considerations related to the efficient functioning of the Election Commission.*

### Arguments Over The Appointment Process

- The present case originated from a Public Interest Litigation (PIL) filed in 2015, to declare the practice of appointment of ECI members solely by the executive as being violative of Article 324(2).
- The matter was referred to a **Constitutional bench** exercising its power under Article 145(3).
  - ✓ **Article 145(3):** It allows the SC to send matters that have substantial questions of interpretation of law involved to the constitutional bench.
- Arguments made:
  - ✓ **Independent and Transparent System for appointment:** Over the years, the ECs have occasionally been accused of being committed to the government that appointed them. In one case, even the CEC (**N Gopalaswamy**) publicly demanded dismissal of his fellow commissioner (**Navin Chawla, accused of favoring the Congress Party**). Thus, independence of ECI is vital for ensuring the principle of free and fair elections.
  - ✓ **Avoid Ruling Party Bias:** The ECI performs a quasi-judicial function of conducting elections and resolving disputes among parties. Thus, the appointment of the CEC and ECs by the executive alone may allow the biases of the ruling party to reflect in appointments.

- ✓ **Parity with other top Bodies:** When the collegium system is considered necessary for Lokpal, NHRC, CIC, CVC and the judges, what is the rationale for leaving out ECI and CAG?
- ✓ **Global Scenario:** According to the Law Commission Report No. 255, in most of the countries across the world that have Election monitoring authorities, the process of selection of its chief is consultative.
- ✓ **Legislative loophole:** In 2017, Supreme Court observed that it is necessary to “plug the gap in the law” w.r.t appointment of ECs to ensure the independence of ECI.
- ✓ **Committee Recommendations:**
  - The petitioners asked the court to take notice of the reports by government-appointed commissions (Justice V.M. Tarkunde led Committee on election expenses in 1975, the Goswami Committee on Electoral Reforms in 1990, and the Law Commission of India in its 255<sup>th</sup> report, 2015) that recommended to have a collegium consisting of the Prime Minister, the Chief Justice of India and the Leader of Opposition in the Lok Sabha for the appointment of ECI members.
  - The Second Administrative Reforms Commission (2007) went a step further and suggested to include the Union Minister of Law and Justice and the Deputy Chairman of Rajya Sabha also in the committee.

### Government's Stand

- The government pleaded for a strict separation of powers.
- It contended that the question on the **legislative loophole** is a matter of parliamentary debate and merely because the parliament has been given power to make a law in certain regard does not imply that a law must be mandatorily passed.
- It argued that the court should only choose to adjudicate on this debate if it is shown by the petitioners that there has been a complete aberration of the ECI's independence.

### Should The Judiciary Intervene

- The court indicated to the government that **it may intervene** on the issue to achieve the constitutional objective under Article 324(2) of the Constitution.
- Those who say the judiciary should not '**overreach**' need to remember that '**separation of powers**' exists along with another constitutional doctrine of 'checks and balances'.
- The credibility of the ECI must be protected at all costs, if our democracy is to survive. Thus, **if the other two branches of the state fail to act**, Judicial intervention is the only option left.
- Along with the appointment, **the system of removal of Election Commissioners also needs review**. The protection given to the CEC from removal must extend to all election commissioners.



## Election In Nepal

- Recently held Elections to the House of Representatives (HoR) and seven provincial assemblies of Nepal failed to produce a clear winner.
  - o After the election, the Nepali Congress became the single largest party with 89 seats, while CPN-UML and CPN-MC got 78 and 32 seats respectively.
- With the support of other political parties, Pushpa Kamal Dahal 'Prachanda' became Nepal's new prime minister for a third time.
  - o He joined hands with rival K P Sharma Oli, chairman of the Communist Party of Nepal-Unified Marxist Leninist (CPN-UML), and other smaller parties.

- o As a result, Prachanda garnered the support of 170 parliamentarians in the 275-member House.

### Significance of This Election

- **For Nepal**

- o This election is crucial as political instability has been a recurrent feature of Nepal's Parliament since the end of the decade-long Maoist insurgency.
- o No prime minister has served a full term after the civil war ended in 2006.

- **For India**

- o The continuance of a Deuba-led government is the best scenario. However, this did not happen as Prachanda joined hand with Oli.
- o Both Prachanda and Oli are seen as pro-China.
  - Prachanda has in the past said a new understanding with India needs to be developed on the basis of "changed scenario" in Nepal and after addressing all outstanding issues.
  - Outstanding issues between the two countries include revision of the 1950 Friendship Treaty and resolving Kalapani and Susta border disputes among others.
- o The Nepali Congress has old ties to India, and under Deuba Prime Ministership, India-Nepal ties recovered to a great extent from the low to which they had sunk under Prime Minister K P Oli's watch.
  - Oli has promised to bring Kalapani, Lipulekh, and Limpiadhura in Uttarakhand under Nepal's control, if he wins.

- **For China**

- o Since 2006, China has worked towards becoming a major player in Nepal — increasing its investments in multiple sectors, and then seeking a favourable regime in Kathmandu.
- o Oli's government signed a trade and transit treaty with China in 2016. President Xi Jinping visited Nepal in October 2019.
- o In September 2022, ahead of the National Congress of the Chinese Communist Party, Chinese National Assembly chief held talks with Nepal's leaders, including Oli and Prachanda.
- o A favourable government in Nepal will help China increase its footprint in India's strategic backyard.

### Electoral System in Nepal

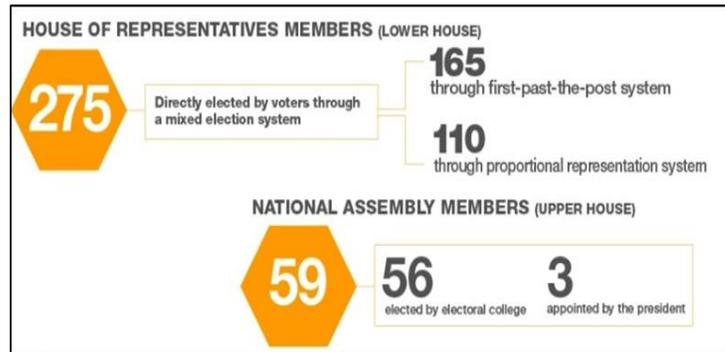
#### Background

- The new constitution passed in 2015 declared Nepal a federal state with three levels of government: **federal, provincial and local**. Adult franchise and periodic election have been categorically stated in the preamble to the Constitution.
  - o **first past the post (FPTP) system** for the election of Local Level,
    - In FPTP system, the candidate with the highest number of votes in a constituency is declared the winner.
    - The system of allocation of seats on the basis of the votes secured by political parties is the proportional electoral system.
  - o **mixed electoral system** of first past the post and proportional representation for the election of State Assembly and House of Representatives.
    - The use of two different electoral systems at the same time is known as mixed electoral system.

#### Federal Election

- There are 334 members in the Federal Parliament, out of which the **House of Representatives (HoR)** has 275 members and the **National Assembly (NA)** has 59 members.

- For federal election, **Nepal has selected the mixed electoral system:**
  - o The first past the post electoral system within plurality/majority electoral system and
  - o List-based proportional electoral system within the proportional electoral system.
    - Political parties submit the list of candidates to the election management body (the Election Commission in case of Nepal).
    - Political parties select the winning candidates based on the number of seats secured by them.
- Members of the House of Representatives are elected as follows:
  - o 165 members are elected through the first past the post electoral system;
  - o 110 members are elected from political parties through a proportional representation electoral system.



### How Does The Voting Work

- Each voter will be given two ballot papers for the two methods (FPTP and PR).
- A party has to cross the election threshold of 3% of the overall valid vote to be allocated a seat under the PR method.

### Forms of Government

- Federal parliament (HoR+NA) will elect a prime minister, who is the real executive head.
  - o The leader of the party that wins a simple majority is invited to form the government. A party or a coalition needs 138 seats for a clear majority.
  - o Members of the HoR are elected for a **five-year term.**
- The National Assembly (NA) is a permanent body.
  - o 56 members chosen by an electoral college consisting of Provincial assembly (PA) members and village and municipal executive members.
  - o Three members are nominated by the president.
  - o It has a term of **six years**, with one-third of its members retiring every two years on a rotational basis.
- The president and vice president are constitutional posts with nominal power.
  - o They are elected by an electoral college formed by the HoR, NA and Provincial Assembly (PA) members.
- The members of the PA choose chief ministers to run the respective provinces.
- A total of 753 local units, spread across 77 districts in seven provinces, have been elected to run the village and municipal administration.

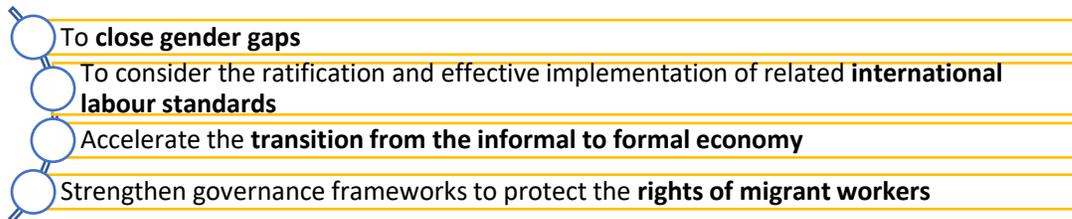


## Asia and Pacific Regional Meeting (APRM) of ILO

- The 17<sup>th</sup> Asia and the Pacific Regional Meeting (APRM) of the International Labour Organization (ILO) was organised in Singapore.
- The APRM discussed issues affecting employment and the world of work in Asia, the Pacific and Arab States.
- The meeting concluded with “**Singapore Declaration**” through which participants agreed to bolster efforts to achieve social justice and decent work for all.

## Key Highlights of Singapore Declaration

- It sets **ten-point priorities of national action** for the member countries to deal with the issue of dwindling wages of workers, inflation and unemployment.
- The declaration said social dialogue is key to building trust.
- Resilient labour market institutions are essential to sustained recovery and inclusive & sustainable growth, and need to be strengthened in the regions.
- It urges members to ensure labour protection for all through the promotion of *freedom of association and the effective recognition of the right to collective bargaining*.
- It calls for action to:



- It also calls for a just transition that helps build environmentally sustainable economies and societies in the face of climate change.
- Revitalizing productivity growth and skills development is also stressed in order to provide more and better jobs with particular focus on digital transformation, digital divides and lifelong learning.
- The Statement highlights the need to reinforce the foundations for social and employment protection and resilience. This includes:
  - expanding social protection to all workers,
  - strengthening labour inspections systems,
  - enhancing occupational safety and health (OSH),
  - addressing the rising costs of living with policies for adequate, fair, non-discriminatory wages,
  - eliminating all forms of forced and child labour.
- The Declaration furthermore confirms the commitment of governments and social partners across the regions to engage in consultations towards the development of a Global Social Justice Coalition.

### India and ILO

- Recently, in June 2021, India completed its term as chair of the Governing Body of the ILO.
  - Governing Body is the apex executive body of the ILO which decides policies, programmes, budget and elects the Director-General.
  - India had assumed the chairmanship after a gap of 35 years. It held the position for the period October 2020- June 2021.
- **India has not ratified the two conventions** (out of 8). These are:
  - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
  - Right to Organise and Collective Bargaining Convention, 1949 (No. 98).
- **Reasons for India not ratifying these two conventions:**
  - The statutory rules in India, for the government employees, prohibits certain rights such as right to strike, to openly criticize government policies etc.

- o After ratification, India would be forced to grant these rights to the civil servants. Hence, India has not ratified these two conventions.

### International Labour Organisation (ILO)

- The ILO, headquartered in Geneva, Switzerland, is a specialized agency of the United Nations (UN).
  - o It was established in 1919, as part of the Treaty of Versailles.
- It is responsible for setting labor standards, developing policies and devising programmes promoting decent work for all women and men.
- It is the only tripartite U.N. agency which brings together governments, employers and workers of 187 member States.
- Parent organization: Economic and Social Council of the United Nations.



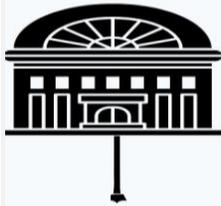
#### Strategic objectives

- The ILO has four strategic objectives
  - o Promote and realize standards and fundamental principles and rights at work
  - o Create greater opportunities for women and men to decent employment and income
  - o Enhance the coverage and effectiveness of social protection for all, and
  - o Strengthen tripartism and social dialogue

#### Other information about ILO

- It is also a member of the United Nations Development Group (UNDP), a coalition of UN organization aimed at helping meet the Sustainable Development Goals.
- Members - The ILO has 187 member states (186 Countries + The Cook Islands)
- Key Reports Published by ILO
  - o World Employment and Social Outlook;
  - o Global Wage Report.

### The Eight fundamental Conventions of ILO



- The Forced Labor Convention, 1930,
- The Abolition of Forced Labor Convention, 1957,
- The Freedom of Association and Protection of the Right to Organize Convention, 1948,
- The Right to Organise and Collective Bargaining Convention, 1949,
- The Equal Remuneration Convention, 1951,
- The Discrimination (Employment and Occupation) Convention, 1958,
- The Minimum Age Convention, 1973, and
- The Worst Forms of Child Labor Convention, 1999



## Twitter Files

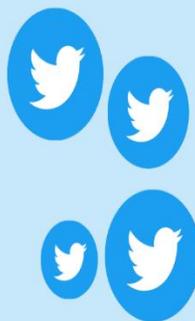
- The minister of state for electronics and IT said that **Twitter Files revelations** presented evidence that the social media platform was being misused.
- He claimed that the platform was acting discriminately against different people.

### Revelation Made by Twitter Files

The files released in parts made some big revelation about:

1. The discussions that led to the banning of a New York Post story concerning the contents of **US President Joe Biden's son Hunter Biden**.
  - The story contained unverified claims about Hunter Biden's business activities in Ukraine.

### Twitter Files



- Earlier, Elon Musk, Twitter's new owner, announced the publication of exclusive emails revealing some of the social media company's internal deliberations.
  - o These deliberations were made over a disputed decision made in 2020 before the US Presidential elections.
- This revelation is being dubbed as Twitter Files. It showed internal conversations between certain top-level officials at Twitter.
- In other words, the Twitter Files are a series of Twitter threads based on internal documents shared by owner Elon Musk with freelance journalists Matt Taibbi and Bari Weiss in December 2022.

2. The teams of Twitter employees **building blacklists**, preventing disfavoured tweets from trending, and actively **limiting the visibility** of entire accounts or even trending topics—all in secret, without informing users.
    - These tools targeted right-wing voices more frequently and went against Twitter's stated policy of not enforcing shadow bans.
      - A **shadow ban** refers to partially blocking or blacklisting a user's profile to reduce visibility without their knowledge.
      - It may lead to less engagement with the account and low visibility of posts instead of an outright ban.
      - In other words, followers cannot see one's posts on a social media platform.
  3. The decision by Twitter management to permanently suspend Trump's personal Twitter account.
- More Twitter files are scheduled to be released later.

### Significance

- The saga does indeed point to questions of **fairness and possible arbitrariness in content moderation**.
  - This includes who decides what is hateful and if all content of similar degrees of illegality are acted on with *uniform strictness*.
- It highlighted the **power large tech companies wield with little accountability**.
- A free speech corporate mission, that Twitter often espoused, was evidently undermined when it banned the NY Post story from being linked to on its service.

### Criticism of Twitter Files

- **It could not create the impact it had hoped for**
  - This is mostly due to one significant factor: the story provides no explanation for why that choice was made.
  - It confirms a number of previously identified available facts while failing to offer light on the issue of whether such choices were made due to political influence or control.
- **Personal information was made public**
  - The discoveries have also been criticized for making public the email addresses and other personal information of those participating in the process.
- **Concerns over safeguards in Twitter under Musk**
  - These episodes have also raised concerns over safeguards in Twitter under Musk.
  - The screenshots shared showed a dashboard that would allow anyone using the ability to access direct messages people generally privately share with other users.
  - Twitter's direct messages are not encrypted in a manner WhatsApp messages are, allowing the company to access these.

### Response from India

- **Weaponising misinformation is unacceptable**
  - Minister of state for electronics and IT said the revelations around visibility filtering were disturbing.
  - This revelation shows that the **platform was not only actively involved in whose content went where but also involved in shaping end result conversation**.
  - The fact that a few people were distorting the conversations happening on the platform and weaponising misinformation is unacceptable.
- **India has taken pre-emptive step**

- o India framed the amended IT Rules which were notified a few weeks ago.
- o Under the amended rules, the government will appoint a grievance appellate committee that would have powers to oversee and overturn content moderation decisions taken by social media platforms.
- o The minister said that the formation of such committees will be fast-tracked in the light of the revelations.
- **Safe harbours for Internet Intermediaries must be conditional**
  - o Twitter Files have shown that it is very obvious that safe harbours for Internet Intermediaries must be conditional on them following a set of rules as India has done.
    - Safe harbour essentially offers legal immunity to social media firms from user-generated content on their platforms.



## Drones Originating From Pak Rangers Outposts

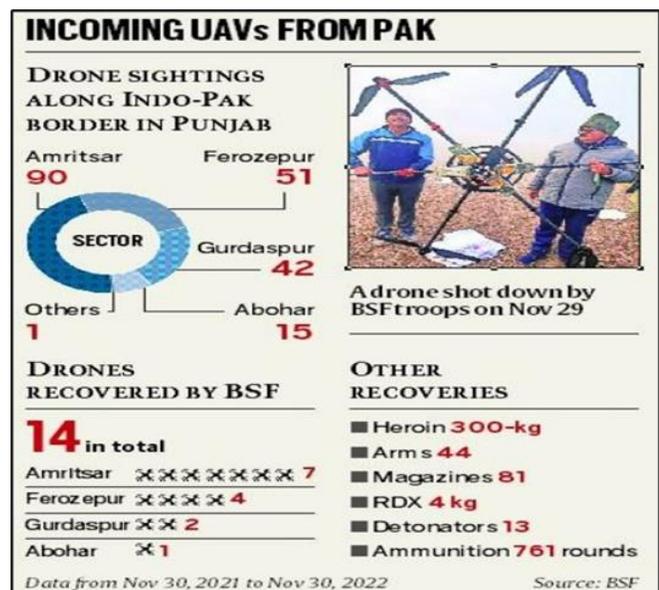
- Punjab has witnessed a multi-fold increase in drone activities from across the international border with Pakistan.
- Security agencies are quite certain that these activities are aided and abetted by the Pakistan Rangers' border outposts since most such unmanned aerial vehicles originate from near them.

### Background

- In June 2021, the Indian Air Force (IAF) base in Jammu was attacked using two low-intensity improvised explosive devices (IEDs).
  - o These IEDs were dropped from two drones.
- It was the first time that suspected Pakistan-based terrorists have used unmanned aerial vehicles in an attack.
- These attacks have restarted a debate around drones as a threat to internal security.

### Threat to Internal Security

- **Transfer of weaponry to terrorists –**
  - o Drones are capable to ferry arms and ammunition across the international border.
  - o In December 2019, the Punjab police unmasked a terror network which was using drones to ferry arms and ammunition across the international border from Pakistan.
- **Attack on critical infrastructure**
  - o In September 2019, the Saudi Arabia's largest oil field was attacked using a swarm of drones.
- **Intelligence gathering and surveillance.**
- **Supports Organised Crime**
  - o The use of drones, especially by the drug cartels, is not a new modus operandi.



- o Recently, the drone, recovered by the BSF from Fazilka's (Punjab) bordering village, had two packets of heroin weighing around 1.6 kg.
- **Challenge to anti-terror operations**
  - o Police and security forces, trained in conventional methods to counter-terrorism, find themselves clueless when confronting unmanned aerial vehicles.

#### Why Tackling Drone is Challenging?

- Conventional radar systems fail to detect small flying objects. If these radars are calibrated to detect drones, these systems might confuse a bird for a drone.
- Currently, border forces in India largely use eyesight to spot drones and then shoot them down.
  - o Shooting these drones are very difficult as they fly at altitude difficult to target.
- Technology to disable their navigation, interfere with their radio frequency, or just fry their circuits using high energy beams have also been tested.
  - o None of these has, however, proven fool-proof.

#### India's Anti-drone Technology

- India's DRDO has made some investments in anti-drone technologies such as the ADITYA Directed Energy Weapon (DEW) and laser dazzles.
- The DRDO's Counter-Drone System was deployed for VVIP protection at:
  - o Republic Day parades in 2020 and 2021,
  - o former US President Donald Trump's visit to Motera Stadium, Ahmedabad.
- Hyderabad-based technology R&D firm Grene Robotics has designed and developed India's first indigenous drone defence dome called **Indrajaal**.



## COP15 to Convention on Biological Diversity

At the 15th Conference of Parties (COP15) to the Convention on Biological Diversity, Small Island Developing States (SIDS) agreed to form a Coalition for Nature (led by Cabo Verde, Samoa and Seychelles.)

- ✓ COP15 has been split into two parts, the first was held online in October 2021.
- ✓ The second part was recently held in Montreal, Canada
- ✓ The next COP i.e., COP16 will be held in Turkey in 2024.

#### About Coalition for Nature

- It forms for the implementation and adoption of the **Global Biodiversity Framework (GBF)**.
- The goal is to advocate for agreed common SIDS priorities and needs such as greater means of implementing biodiversity objectives in these places by putting up a unified front.
- The purpose of this Coalition is to underline how SIDS are home to a large portion of the world's biodiversity and show that they have been using **nature-based solutions**.
  - ✓ It will also highlight how enhancing these means of implementation of SIDS will be strategic to save the planet.

## Global Biodiversity Framework (GBF)

- It is a new framework that will guide actions worldwide through 2030, to preserve and protect nature and its essential services to people.
- It emphasises respect for the rights of indigenous communities that traditionally protect forests and biodiversity, and their involvement in conservation efforts.
- Its proposed aims include reducing pesticide use by at least two-thirds and eliminating the most detrimental subsidies, including fisheries and agricultural subsidies.
- One of the key targets of the GBF - **the 30x30 target** - is to protect at least 30% of the planet (especially areas of particular importance - land and sea - for biodiversity) by 2030.
- Once approved unanimously by all 195 countries under the CBD, the GBF will be signed as a global deal to take specific measures under 23 proposed targets by 2030.

- The targets which are not accepted by one or more countries will not be part of the Framework.

## India's Position on GBF

- **Overall:**
  - The GBF must be framed in the light of **science and equity**, and the sovereign right of nations over their resources, as provided for in the CBD.
  - If climate is profoundly linked to biodiversity, then the principle of equity and common but differentiated responsibilities and respective capabilities (**CBDR-RC**) must equally apply to biodiversity.
  - Biodiversity must be promoted through positive investment.
- **On subsidies, pesticide use and invasive alien species:**
  - That the essential support to vulnerable sections **cannot be called subsidies** and targeted for elimination, but may be rationalised.
  - India's position on pesticide use, stating that a numerical global target for pesticide reduction is unnecessary and should be left up to individual countries to decide.

### KEY GLOBAL TARGETS FOR 2030



- ▶ Effective conservation and management of at least 30% of the world's lands, inland waters, coastal areas and oceans (Currently 17% and 10% of the world's terrestrial and marine areas respectively are under protection)
- ▶ Complete restoration of at least 30% of degraded terrestrial, inland waters, and coastal and marine ecosystems
- ▶ Reduce to near zero the loss of areas of high biodiversity importance
- ▶ Cut global food waste in half, and significantly reduce overconsumption and waste generation
- ▶ Reduce the use of pesticides and highly hazardous chemicals by half
- ▶ Progressively phase out or reform by 2030 subsidies that harm biodiversity by at least \$500 billion per year
- ▶ Mobilize by 2030 at least \$200 billion per year in domestic and international biodiversity-related funding from all sources - public and private
- ▶ Raise international financial flows from developed to developing countries to at least US\$ 20 billion per year by 2025, and to at least US\$ 30 billion per year by 2030
- ▶ Big business and investors must also report on their actions that impact and protect nature

## About Convention on Biological Diversity (CBD)

- It is a multilateral treaty opened for signature at the Earth Summit in Rio De Janeiro in 1992.
- It comes under the United Nations Environment Programme (UNEP).
- It has been ratified by 196 countries for the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising from the utilization of genetic resources.

## Small Island Developing States (SIDS)

- These are a distinct group of 38 UN Member States and 20 Non-UN Members/Associate Members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities.
- The three geographical regions in which SIDS are located are: **Caribbean, Pacific, and Atlantic, Indian Ocean & South China Sea (AIS)**.
- SIDS were recognized as a special case both for their environment and development at the 1992 United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil.
- SIDS hosts 19% of the world's coral reefs and their geographic isolation safeguards an array of endemic plants and animals found nowhere else on earth.



## Dhara Mustard Hybrid-11 (DMH-11)

Doctors across India have come together to express their concern against the plantation of genetically modified **Dhara Mustard Hybrid (DMH) -11**.

- ✓ It had recently been approved by the Genetic Engineering Appraisal Committee (GEAC) for commercial cultivation.
- ✓ Earlier, in 2017, the GEAC had cleared the proposal for commercial cultivation of GM mustard. However, the Union Environment Ministry vetoed it and suggested that the panel hold more studies on the GM crop.

### What Are The Concerns Related To DMH-11?

- A national programme (during 2006) in yield-evaluation trials at eight locations, has already indicated that it is not at all superior to earlier non-GM CMS DMH-1.
- Moreover, it has a small seed size, which is not preferred from the standpoint of oil recovery.
- Environmental activists are concerned that the genetically modified mustard crop will affect honey production in India.
- DMH-11 is herbicide tolerant, so farmers can spray crops with weed killer without harming the crops.
- ✓ This has raised fears that farmers may resort to overuse of toxic herbicides, causing weeds to become resistant to them and the rise of so-called superweeds.

### About DMH-11

- It is a genetically modified variety of mustard.
- It contains two alien genes isolated from a soil bacterium called *Bacillus amyloliquefaciens*.

- It has been developed using the **genetic male sterility (GMS)** technique, especially 'barstar-barnase' system to make it herbicide resistant.
- It is developed by the Centre for Genetic Manipulation of Crop Plants (CGMCP) at Delhi University.
- Field trials of DMH-11 showed that they were high yielding and did not deter the pollination habits of honeybees.
- This will be the second GM crop after GM cotton that can be commercially cultivated in the country now.
  - Across the world, GM variants of maize, canola and soyabean, too, are available.

### GM Seeds

- Conventional plant breeding involves crossing species of the **same genus** to provide the offspring with the desired traits of both parents.
- Genetic engineering aims to transcend the genus barrier by introducing an alien gene in the seeds to get the desired effects.
  - The alien gene could be from a plant, an animal or even a soil bacterium.
  - E.g., Bt cotton has two alien genes from the soil bacterium *Bacillus thuringiensis* (Bt).
    - It allows the crop to develop a protein toxic to the common pest pink bollworm.
  - In Bt brinjal, a gene allows the plant to resist attacks of fruit and shoot borer.
- Seeds produced using genetic engineering are called Genetically Modified Seeds.

### Mustard Cultivation in India

- It is one of India's most important rabi crops which is sown between mid-October and late November.
- The Indian mustard (*B. juncea*) is a member of the Brassicaceae family.
- It is cultivated by around 6 million farmers in around 6.5-7 million hectares of land across the states of Rajasthan, Haryana, Punjab and Madhya Pradesh.
- Alluvial loam is the optimum soil for growing mustard, sandy to heavy clay soil is also appropriate.
- The temperature range needed for the mustard crop is from 10 °C to 25 °C.
- It is grown in regions with annual rainfall ranging from 625 to 1000 mm.

### Significance of GM Mustard

- Researchers claims that transgenic oilseeds like GM Mustard could help the country become self-sufficient in cooking oils.
  - India produces only 8.5-9 million tonnes (mt) of edible oil annually, while importing 14-14.5 mt that entailed a record foreign exchange outgo of \$18.99 billion in the fiscal year ended March 31, 2022.
- Indigenously developed, DMH-11 is a testimony to homegrown scientific prowess.
  - Hybridisation in plants like Mustard is not easy as its flowers have both female (pistil) and male (stamen) reproductive organs.
    - This makes the plants largely self-pollinating.
  - The eggs of one plant cannot be fertilised by the pollen grains from another making hybrids next to impossible.

### Legal Position of GM Crops In India

- In India, GEAC is the apex body that allows for commercial release of GM crops.
- In 2002, the GEAC allowed the commercial release of Bt cotton.

- In October 2022, GEAC cleared the proposal for commercial cultivation of GM mustard also known as Dhara Mustard Hybrid-11 (DMH-11).
- Use of the unapproved GM variant can attract a jail term of 5 years and fine of Rs 1 lakh under the Rules, 1989 (notified under Environmental Protection Act ,1986).

### Advantages of GM Crops

- It enhances farm production.
- Food with more desirable traits
- Ensures production of more nutritious food
- It reduces the use of pesticide and insecticide during farming that might be for the betterment of the food supply.
- ✓ For example, India introduced Bt cotton seeds in 2002. It has greatly reduced the use of toxic pesticides.
- It can feed a rapidly increasing population because it shows dramatically increased yields.

### Disadvantages of GM Crops

- It may disrupt the natural process of gene flow because the better traits produced from engineering genes can result in the favouring of one organism.
- GM Crops being altered biologically may pose a human health risk which include **Allergies**, other anti-nutritional factors in foods, resistance to antibiotics and Cancer.

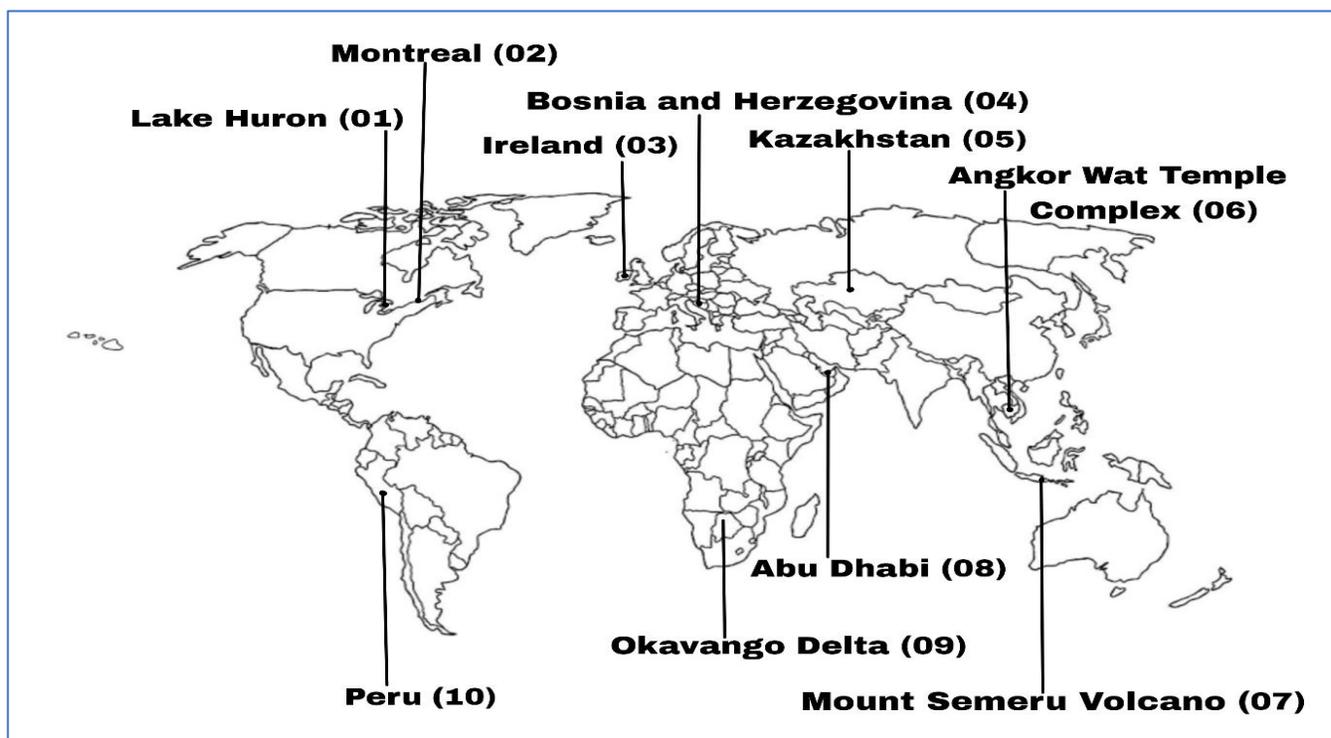
#### Genetic Engineering Appraisal Committee (GEAC)

- It was established under the **Ministry of Environment, Forest and Climate Change (MoEF&CC)**.
- It is the apex body, notified under Rules 1989, of the Environment Protection Act 1986 for approval of activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- It is also responsible for the approval of proposals relating to the release of genetically engineered organisms and products into the environment, including experimental field trials.

- Increases the cost of cultivation as farmers have to rely on companies for the seeds
- Inadvertent transfer of genes from one GM plant or animal to another plant or animal might lead to unintended genetic modification harmful to the ecosystem.
- It is more inclined towards marketization of farming that works on immoral profits.
- The excessive production of GM foods will be rendered ineffective over time because the pests that these toxins used to deter eventually might develop resistance towards them.

## MAPS: PLACES IN NEWS

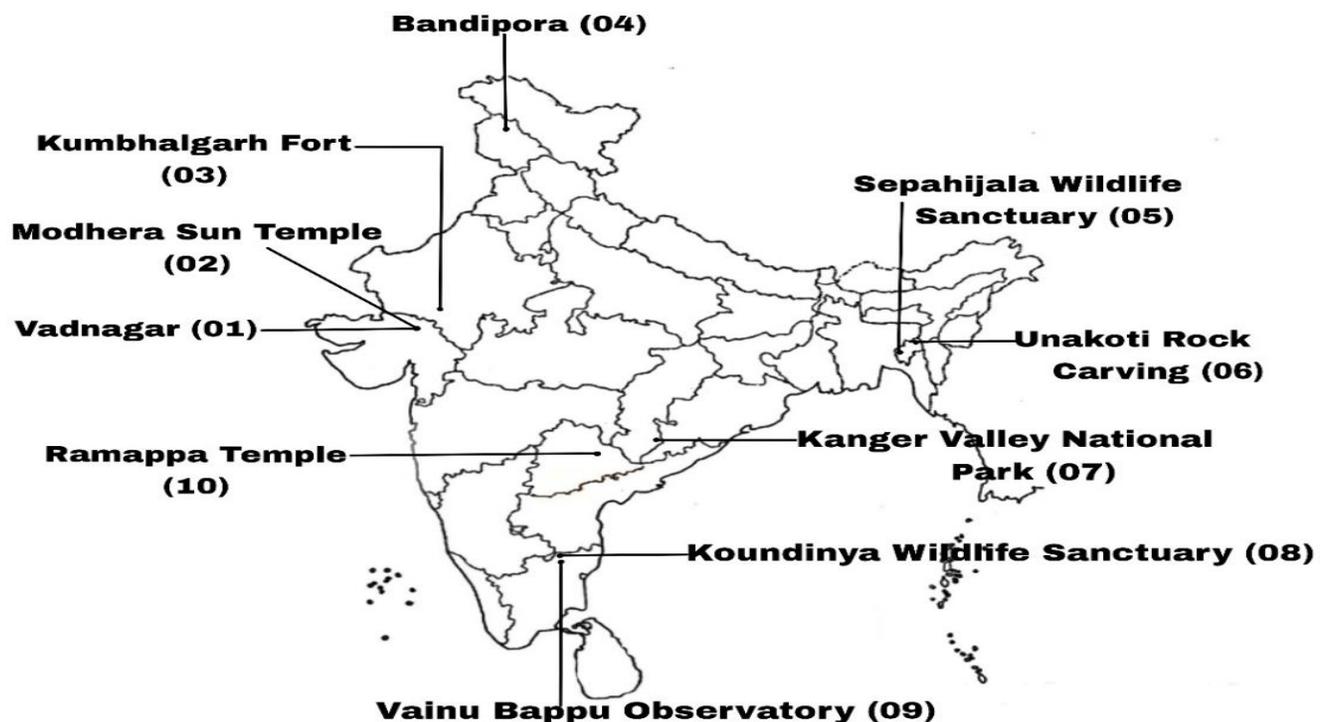
### International Places in News



01	<b>Lake Huron</b>	Scientists are building a sensor network to detect the trends in the water chemistry of Lake Huron. It is the 2 <sup>nd</sup> largest (by surface area) of the Great Lakes of North America after Lake Superior. (Five Great lakes are Superior, Michigan, Huron, Erie, and Ontario). Lake Huron is the world's third largest freshwater lake, after Lake Superior and Lake Victoria. Inflow into the lake is received from Lake Superior, from Lake Michigan and from numerous streams draining the adjacent lands. The lake discharges at its southern end into Lake Erie.
02	<b>Montreal</b>	The 15th Conference of Parties (COP15) to the United Nations Convention on Biological Diversity (CBD) held in Montreal, Canada. The Montreal Protocol on Substances that Deplete the Ozone Layer is a global agreement to protect the Earth's ozone layer by phasing out the chemicals that deplete it.
03	<b>Ireland</b>	Indian-origin Leo Varadkar has returned as Ireland's Taoiseach (PM) in rotation agreement. Ireland is an island in the North Atlantic Ocean in north-western Europe. It is separated from Great Britain by the North Channel, the Irish Sea and St George's Channel to its east. Geopolitically, it is divided between the Republic of Ireland, which covers five-sixths of the island, and Northern Ireland, which is part of the UK.
04	<b>Bosnia and Herzegovina</b>	The European union has agreed to grant membership candidate status to Bosnia and Herzegovina. It is a South-eastern European country located in the western Balkans, bordering the Adriatic Sea. It was formerly one of the states of the former federation of Yugoslavia until it declared its independence in March 1992. It shares its boundary with Croatia, Montenegro, and Serbia. National capital and largest city is Sarajevo.
05	<b>Kazakhstan</b>	The 6th Edition of Indo - Kazakhstan joint training exercise KAZIND-22 is conducted at Umroi (Meghalaya). It is the largest country in Central Asia and the 9 <sup>th</sup> largest in the world. It shares its boundary with Russia, China, Kyrgyzstan, Uzbekistan, the Aral Sea, and

		Turkmenistan. The capital is Astana, formerly known as Nur-Sultan. It was formerly a constituent republic of the USSR, later it was declared independent on 16 <sup>th</sup> Dec', 1991.
06	<b>Angkor Wat Temple Complex</b>	External affair minister highlighted India's efforts to restore Angkor Wat temple complex because of civilisational ties. It is an ancient temple complex located in Siem Reap province of Cambodia. It was built by Suryavarman II in early 12th century. Initially, it was dedicated to Hindu Gods Shiva, Brahma, and Vishnu. Later, it was transformed into a Buddhist temple. It is world's largest religious structure. It covers scores of temples, hydraulic structures (basins, dykes, reservoirs, canals) and communication routes.
07	<b>Mount Semeru volcano</b>	Mount Semeru volcano erupted recently triggering top alert status. It is also known as the Great Mountain, located in East Java, Indonesia, contains the active Jonggring-Seloko vent at the Mahameru summit. Hundreds of eruptive events occurred during the 19th and 20th centuries. It is located in a subduction zone, where the Indo-Australian plate subducts under the Eurasia plate. It is the highest mountain on the island of Java.
08	<b>Abu Dhabi</b>	The next World Trade Organization ministerial conference will be held in Abu Dhabi in February 2024. It is the capital of the United Arab Emirates. It is located on an island in the Persian Gulf, off the Central West Coast. It is joined to the mainland by the Maqta and Mussafah Bridges.
09	<b>Okavango delta</b>	Oil companies are seen threatening Africa's iconic biodiversity hotspots like the Okavango delta, a UNESCO World Heritage Site, in an effort to drill for oil. This delta, located in north-west Botswana, comprises permanent marshlands & seasonally flooded plains. It is formed by the Okavango River, which originates in highlands of Angola.
10	<b>Peru</b>	Dina Boluarte became Peru's 1 <sup>st</sup> female President. It is country located in western South America. It shares its boundaries with Colombia, Brazil, Bolivia, Chile, Ecuador and the Pacific Ocean. It contains 4% of planet's freshwater. The largest freshwater lake in Peru, Lake Titicaca, lies between Peru and Bolivia. It is also the largest lake of South America.

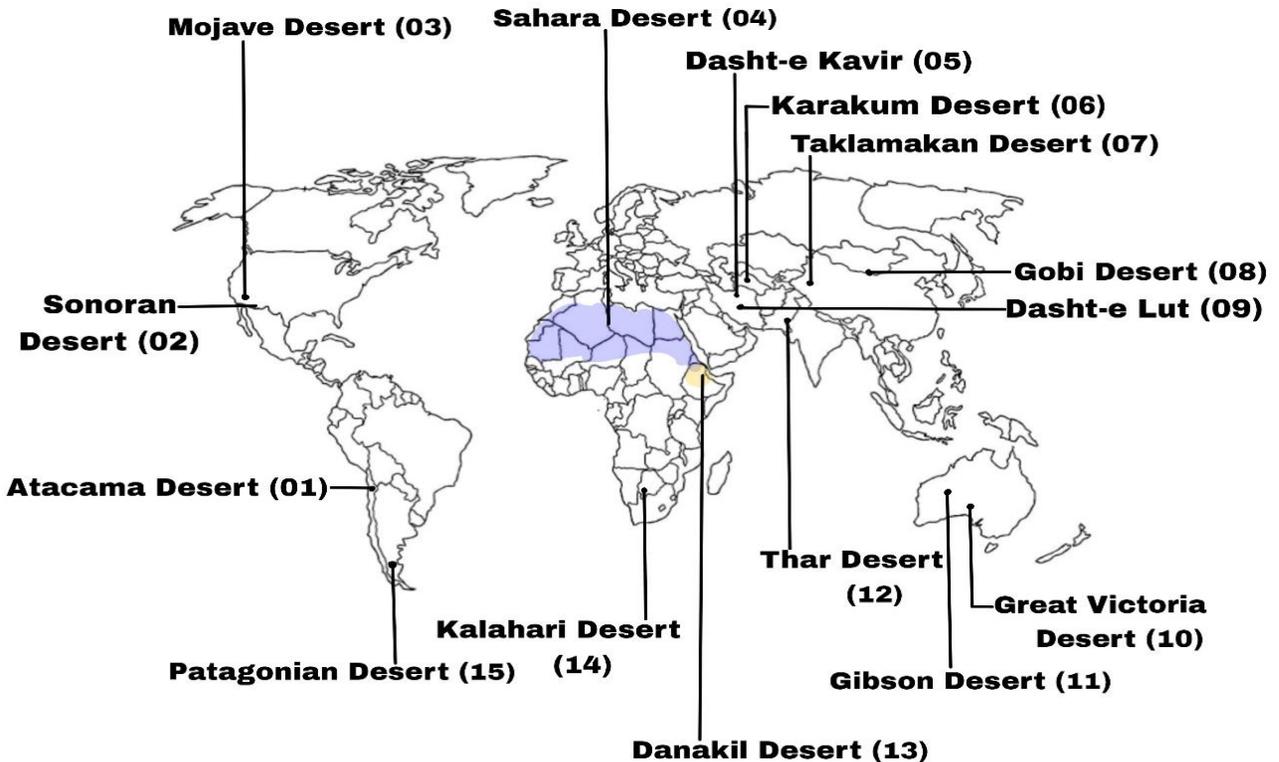
### National Places in News



01	<b>Vadnagar</b>	Gujarat's Vadnagar town have been added to the tentative list of UNCESO World Heritage Sites. It is also called Chamatkarpur, Anandpur, Snehpur and Vimalpur. The city is famous for its torans, a pair of 12th century Solanki-era columns, 40 feet tall and built in red and yellow sandstone to celebrate a war victory. The city was mentioned in the Puranas as well. Chinese Buddhist traveller, Hiuen Tsang visited the city in 640 AD. During excavations in 2008-09, ruins of a Buddhist monastery were also unearthed in Vadnagar.
02	<b>Modhera Sun Temple</b>	Sun Temple at Modhera, Gujarat have been added to the tentative list of UNCESO World Heritage Sites. It is located on the left bank of the river Pushpavati, a tributary of river Rupan. This east-facing temple is built with bright yellow sandstone. It is built in Maru-gurjara architectural style, consists of the main temple shrine, a hall, an outer hall or assembly hall and a sacred pool, which is now called Ramakunda. Every year, at the time of the equinoxes, the sun shines directly into this central shrine of the temple.
03	<b>Kumbhalgarh Fort</b>	The Sherpas of the G20 countries and invitees from countries and international organisations recently visited the famous Kumbhalgarh Fort in Udaipur, Rajasthan.
04	<b>Bandipora</b>	1 <sup>st</sup> -of-its-kind Tribal Winter Festival was held in the Bandipora district of Jammu and Kashmir. It is located in the foothills of the snow-clad peaks of Harmukh overlooking the shores of Wular Lake. The district is famous for Wular Vintage Park, Athwato and Gurez valley. The tribal festival is organised by the district administration in collaboration with various departments at Ketson. The festival witnessed music, dance, and cultural events that left the people enthralled.
05	<b>Sepahijala Wildlife Sanctuary</b>	It is located in Tripura. It was established in the year 1987 as a measure to protect the wildlife of the region. It is a woodland with an artificial lake and natural botanical and zoological gardens. It has been developed both as a wildlife sanctuary and as an academic and research centre. Clouded Leopard National Park is a part of Sipahijala Wildlife Sanctuary. Clouded Leopard National Park was established in the year of 2007.
06	<b>Unakoti Rock Carving</b>	Unakoti Rock Carving in Tripura, have been added to the tentative list of UNCESO World Heritage Sites. Unakoti means one less than a crore and it is said that these many rock cut carvings are available here. As per Hindu mythology, when Lord Shiva was going to Kashi along with one crore gods and goddesses, he made a night halt at this location. The images found at Unakoti are of two types, namely rock-carved figures and stone images. Among the rock cut carvings, the central Shiva head and gigantic Ganesha figures deserve special mention. Every year a big fair popularly known as Ashokastami Mela is held in the month of April which is visited by thousands of pilgrims.
07	<b>Kanger Valley National Park</b>	Around 200 bird species were documented during the Kanger Valley Bird Survey. It is located in Chhattisgarh. The name of the park is derived from the Kanger river, which flows in its length. It got the status of a national park in the year 1982. The most popular species in this area is Bastar Maina (The state bird of Chattisgarh). This National Park is home to three exceptional caves – Kutumbar, Kailash and Dandak- famous for their amazing geological structures of Stellagmites and Stalactites. Tirathgarh Waterfall is located in Kanger Valley National Park.
08	<b>Koundinya wildlife sanctuary</b>	An 18-member herd of all female elephants from the forests of Gudiyattam and Pernambattu of Tamil Nadu are currently on the prowl in the Koundinya wildlife sanctuary zone, apparently "in search of mates". It is an elephant reserve located in <b>Andhra Pradesh</b> . The sanctuary is covered by southern tropical dry deciduous and

		thorn forests. It is situated in the region where the Kolar Plateau ends and slopes down into the plains of Tamil Nadu creating many valleys and ghats.
09	<b>Vainu Bappu Observatory (VBO)</b>	Stellar discoveries of 40-inch telescope at VBO were highlighted at its 50-year celebration. It is an astronomical observatory owned and operated by Indian Institute of Astrophysics. Located in Javadi hills in Vellore district of Tamil Nadu. Telescope was set up in 1972 by Professor Vainu Bappu. It is credit with discoveries like presence of rings around planet Uranus, new satellite of Uranus, presence of an atmosphere around Ganymede which is a satellite of Jupiter.
10	<b>Ramappa Temple</b>	Restoration project of colossal mandapa of historic Ramappa Temple is nearing completion. It is popularly known as Thousand Pillar Temple and Rudreshwara temple, located in Telangana. It is a Kakatiya style Hindu temple dedicated to the god Shiva. It was built during Kakatiyan period (1123–1323 CE) under rulers Rudradeva and Recharla Rudra. It is designed and architect by Ramappa, after whom the temple complex is named. In 2021, it was included in UNESCO World heritage List.

### Important Desert In World



01	<b>Atacama Desert</b>	It is a 600-mile-long plateau in the north of Chile. It is the driest nonpolar desert in the world. The species diversity in it is highly restricted. It contains the world's largest supply of sodium nitrate.
02	<b>Sonoran Desert</b>	It is located in both Mexico and the United States. It is the only place in the world where the saguaro cactus grows in the wild.
03	<b>Mojave Desert</b>	It is an arid region in south-eastern California, United States. It is part of the North American Desert. The Tehachapi, San Gabriel and San Bernardino Mountain ranges, form a western boundary for it.

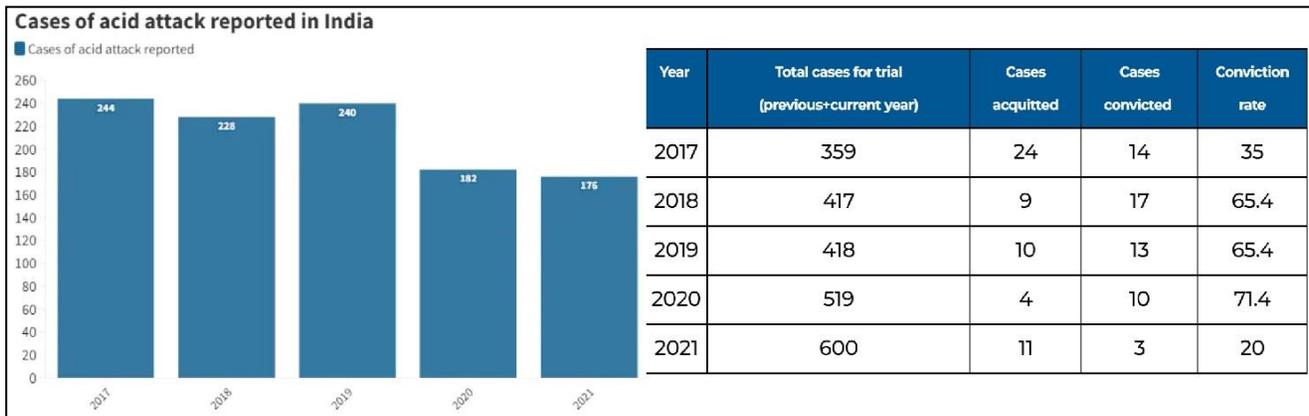
04	<b>Sahara Desert</b>	It is the largest hot desert in the world. It covers 10 different countries Algeria, Chad, Egypt, Libya, Mali, Mauritania, Niger, Westen Sahara, Sudan, and Tunisia. The only freshwater lake in the Sahara Desert is Lake Chad.
05	<b>Dasht-e Kavir</b>	It is also known as the Great Salt Desert. It is located in the middle of the Iranian Plateau. The area of this desert stretches from the Alborz Mountain range to the Dasht-e Lut.
06	<b>Karakum Desert</b>	It covers over 70% of Turkmenistan. Dervaza Gas Crater also known as the Door to Hell is located in this desert. Soviet archaeological uncovered evidence of Stone and Bronze Age cultures in the desert.
07	<b>Taklamakan Desert</b>	It is located in Southwest Xinjiang in Northwest China. It is bounded by the Kunlun Mountains, Pamir Mountains, Tian Shan range and the Gobi Desert. It is distinguished by its perpetually moving sand dunes.
08	<b>Gobi Desert</b>	It is spread over vast areas of Mongolia and China. Much of the Gobi is not sandy desert, but bare rock. It stretches the longest in the west, between Lake Bosten and the Lop Nor.
09	<b>Dasht-e Lut</b>	It is located in Iran. The eastern part is a low plateau covered with salt flats. It is a UNESCO's World Heritage site. This desert is the hottest Iran deserts and one of the hottest places in the world
10	<b>Great Victoria Desert</b>	It is the largest desert in Australia. The Western Australian mulga shrubland ecoregion lies to the west of this desert. The Nullarbor Plain separates it from the Southern Ocean.
11	<b>Gibson Desert</b>	It is located north of the Great Victoria Desert. It is the 5th largest desert in Australia. Other four desert are Great Victoria, Great Sandy, Tanami and Simpson deserts. It is located between the saline Kumpupintil Lake and Lake Macdonald along Tropic of Capricorn.
12	<b>Thar Desert</b>	It is also known as the Great Indian Desert. It forms a natural boundary between India and Pakistan. India has about 85% of the Thar Desert while the rest is in Pakistan. Desert Natural Park, Tal Chhapar Sanctuary is located in this desert.
13	<b>Danakil Desert</b>	It covers the area of Ethiopia, Eritrea and Djibouti. It is situated in the Afar Triangle. The area is known for its volcanoes and extreme heat. Famous lakes of this desert are Lake Afrera and Lake Asale.
14	<b>Kalahari Desert</b>	It encompasses much of Botswana as well as sections of Namibia and South Africa. Despite being a semi-desert, it has vast areas of dense forests. It merges with Namib, Namibia's coastal desert, in the southwest.
15	<b>Patagonian Desert</b>	It is also known as the Patagonian Steppe. It is Argentina's largest desert and the world's 8 <sup>th</sup> largest by area. It is bordered by the Andes and Atlantic Ocean. The desert divides into the Cuyo Region and the Monte.

## Consumer Protection Authority Seeks Explanation From Flipkart On Sale Of Acid

The Central Consumer Protection Authority (CCPA) has sought explanation from e-commerce player Flipkart regarding sale of acid on its online platform.

### Acid Attack In India

- As per an analysis of the National Crime Records Bureau (NCRB) data, 14 cases of acid attacks were reported per month across the country in 2021.
  - The number of reported cases saw some decline over the years. However, not all these cases go to trial.
  - Experts believe that the number of reported cases might be low.
    - There are cases where acid attacks happen as part of domestic violence where women are pressured to not report it.
- While the conviction rate remains low, the acquittal rate remains considerably high in the country.
  - In 2021, in only three cases, there was a conviction of the accused, while in 11 cases, the accused was acquitted.



### Existing Regulations To Control Acid Attack In India

- **Over-the-counter Sale Is Banned In India**
  - Supreme Court banned over-the-counter acid sales across the country in 2013.
    - Over-the-counter sale of acid is prohibited unless the seller maintains a log/register recording the sale of acid, which will contain the details of the person to whom acid is sold and the quantity sold.
    - The log/register shall contain the address of the person to whom it is sold.
  - After the landmark verdict in **Laxmi Agarwal's case in 2013**, the Supreme Court also laid out certain guidelines, making license mandatory for selling acid.
- **Registration of Shops**
  - Shops need to be registered under the **Poison Act 1919**. Rules are there for the buyer as well.
  - A person has to provide an id card to buy acid and disclose the reason for doing so. Moreover, acids can't be sold to anyone below 18 years of age.
  - Those violating rules need to pay a fine of Rs 50,000.
- **Legal Provisions Available To Deal With The Crime**
  - In India, there was no separate legislation to deal with acid attacks before the passing of The Criminal Law (Amendment) Act. 2013.
  - The offense was registered under Sections 320, 322, 325, 326, and 307 of the Indian Penal Code (I.P.C).

- Section 320 - Grievous Hurt; Section 322 – Voluntarily causing Grievous Hurt; Section 325 - Punishment for Voluntarily Causing Grievous Hurt; **Section 326** – Voluntarily Causing Grievous Hurt By Dangerous Weapons Or Means; **Section 307** - Attempt To Murder.
- Later, the Criminal Law Amendment Act 2013 inserted **Sections 326(A)** and **326(B)** in IPC to deal with acid attacks.
- In July 2022, the Allahabad High Court said that the charge under Section 326A IPC can be framed against the accused even if no grievous hurt has been caused to the acid attack survivor.
  - Grievous hurt to an acid attack survivor is not mandatory in each case.
- **Relief To The Acid Attack Victim**
  - In 2013, the Supreme Court also ruled that victims should receive free medical treatment and minimum compensation of Rs 3 lakh.
    - Section 326(A) states that whoever causes permanent or partial damage shall be punished with minimum 10 years in jail to a life term and a fine up to Rs. 10 Lakh to be given to victim.

### Denotified, Nomadic, Semi-Nomadic Tribes

- The **Parliamentary panel** on Social Justice and Empowerment has pulled up the Union government over the very slow process to categorise over 260 denotified, nomadic and semi-nomadic tribes (DNTs) under either the SC/ST/OBC lists.
- This has led to delay in the approval of benefits under the **SEED** (Scheme for Economic Empowerment of DNTs) scheme.

### Status In India

- **More than 10 crore Indians** from over **1,400 communities** are either denotified (settled in various States of the country), nomadic or semi-nomadic.
- The Government of India in **2014** had constituted **National Commission for Denotified, Nomadic and Semi-Nomadic Tribes (NCDNT)**/Idate Commission for a period of 3 years to-
  - Prepare a **State-wise list of castes** belonging to Denotified and Nomadic Tribes
  - Suggest **appropriate measures** in respect of Denotified and Nomadic Tribes that may be undertaken by the Central or the State Government.

### Who are DNTs?



- The term 'De-notified Tribes' stands for all those communities which were once notified under the **Criminal Tribes Acts**, enforced by the British Raj between 1871 and 1947.
- These Acts were repealed by the Government of India in 1952, and these communities were "**De-Notified**".
- A few of these communities which were listed as denotified were also **nomadic** - social groups who undertook seasonal physical movement as part of their livelihood strategy in the recent past.
- The term **semi-nomad** is mostly used to describe those sections of nomads whose duration, distance and frequency of movement is comparatively less than others.





- **The NCDNT/Renke Commission (2008)** was earlier commissioned to identify and list the DNT communities.

### Development and Welfare Board for Denotified, Nomadic & Semi-Nomadic communities (DWBDNCs)

- **The Idate commission** recommended the setting up of a permanent commission for these communities.
- But since most DNTs are covered under SC, ST or OBC, the government felt setting up a permanent commission would be in conflict with the mandate of the National Commission for Scheduled Castes (NCSC), NCST and NCBC.

- The government therefore set up the DWBDNCs (in 2019, under the chairmanship of BR Idate) as a society under the aegis of the **Ministry of Social Justice and Empowerment** for the purpose of implementing welfare programmes.

### Panel's Report

- It flagged the **inability** of the Department Social Justice and Empowerment **to take necessary action on the speedy and accurate categorisation** of these communities.
- Delay in locating them **would increase their suffering** and they would not be able to get benefit of the prevailing Schemes meant for the welfare of SC/STs.
- As of now, a total of over 5,400 applications have been received under the SEED scheme, none of which have been approved and no amount has been sanctioned.
- The panel expected that the government would **expedite** this exercise and finish it in a time-bound manner and sought detailed timelines for the same.

### Department's Response

- **The Idate Commission** had categorised 1,262 communities of 1400 under SC/ST/OBC lists and 267 communities were left uncategorised.
- **The communities categorised by the Idate Commission are not accurate** with many communities appearing in SC lists in one State or district and on the ST list in others.
- **The Anthropological Survey of India (AnSI)** has submitted reports on categorisation of 48 DNT communities so far and is expected to finish studying the remaining communities by the end of 2022.
- According to the DWBDNC,
  - SEED scheme was launched along with a system for online applications and live status-tracking.
  - However, with many DNT communities unable to navigate the online system themselves, **officials have been conducting camps** across the country with community leaders to help the applicants sign up on the web portal.
  - But unless the **bureaucratic exercise of their accurate categorisation** is completed, the application will not be processed.

The infographic is titled "SEED (Scheme for Economic Empowerment of DNTs)" and features the Ministry of Social Justice and Empowerment logo. It includes a central illustration of a family and a person with a "PLEASE HELP" sign. The text describes the scheme's launch in February 2022 with a ₹200 crore allocation from FY 2021-22 to FY 2025-26. It lists components: Educational empowerment (free coaching), Health (PM Jan Arogya), Livelihoods (NRLM/SRLMs), and Land and Housing (PM Awas Yojana). It also states that DWBDNCs are implementing the scheme and that beneficiaries are DNT communities with family income ≤ ₹2.50 lakhs not covered by other schemes.

### Doping In India

- As per one of the India's leading newspaper report, Indian gymnastics' poster girl Dipa Karmakar is under suspension since the second half of 2021 for her failure to honour the whereabouts as mandated by the world anti-doping agency (WADA).
  - Dipa had changed the face of gymnastics in India after her ground-breaking fourth-place finish in the women's vault final at the Rio Olympics 2016
- According to this report, she is currently serving a two-year ban for this violation.

## What is Whereabouts Clause As Mandated by WADA?

- Some athletes, usually those who are part of a **Registered Testing Pool (RTP)**, are required to provide whereabouts information.
- This information is used by Anti-Doping Organizations (such as NADA, WADA etc.) to locate athletes for effective out of competition doping control.
- If an athlete in the RTP commits three whereabouts failures (which can be a combination of filing failure and/ or missed tests) in a 12-month period, it will constitute an anti-doping rule violation.
- In this case, he/she will be sanctioned for a period of ineligibility of 12 -24 months (first offence) or more for subsequent offences.



**world  
anti-doping  
agency (WADA)**

- WADA was established in 1999 as an international independent agency to lead a collaborative worldwide movement for doping-free sport.
  - It was promoted by the International Olympic Committee.
- Its primary role is to develop, harmonize and coordinate anti-doping rules and policies across all sports and countries.
- Its key activities include:
  - scientific and social science research;
  - education; intelligence & investigations;
  - development of anti-doping capacity; and
  - monitoring of compliance with the World Anti-Doping Program.

## What Is Doping

- Doping refers to the use of banned substances in competitive sports with a primary goal to enhance performance.
  - **Performance enhancing drugs (PEDs)** is another term for drugs used by athletes to improve their athletic performance.
- This can be achieved in broadly four ways – by increasing muscle mass, getting an artificial spike in energy ahead of an event, cutting down on recovery time and masking the effect of other drugs.

## Doping in India: Where Does India Stand?

- In 2022, 62 Indian athletes have been caught doping or in possession of banned substances, according to the Athletics Integrity Unit (AIU) of World Athletics.
  - Only Russia has recorded more doping violations than India with 87 athletes receiving punishment.
- Ahead of the 2022 Commonwealth Games, five members of the Indian athletic contingent had failed their dope tests.
- As many as 152 doping violations were reported in the nation in 2019 – only behind Russia (167) and Italy (157).

## Why Do So Many Indian Athletes Dope?

- A major reason is the athlete wanting to register a big performance on the basis of which they can get jobs or incentives.
- The increasing number of privately sponsored, prize-money marathons & cross country runs in India also are a source of doping temptation for athletes.
  - There is rarely any stringent dope testing at private competitions, giving athletes a free run.
- Corrupt coaches are also one of the reasons.
  - The Maharashtra Athletics Association recently banned coach Mickey Menezes after it was proved that he was responsible for giving an athlete injections that contained a banned substance.

## What Are The Existing Regulatory Frameworks In India?

- **Legislation**
  - In August 2022, Parliament passed the **National Anti-Doping Bill, 2022.**

- The legislation seeks to prohibit athletes, support personnel and other people from engaging in doping in sport.
- The bill aims at strengthening anti-doping activities in sports and offer a statutory framework for the functioning of the National Anti-Doping Agency (NADA).
- **Institution: National Anti-Doping Agency (NADA)**
  - NADA was set up as registered society in November 2005 with a mandate for Dope free sports in India.
    - It has now been made a **statutory body** under National Anti-Doping Act, 2022.
  - NADA holds regular testing in two different ways.
    - The first one is called the *in-competition testing*, wherein athletes are tested for banned substances during a competition.
    - To prevent the practice of doping during an off-season, NADA also organises *out-of-competition testing*.

India needs to work on a two-pronged strategy of testing as many athletes as it can and educating athletes. Also, it should focus on launching and interactive awareness campaign and an integrity campaign to make athletes feel responsible.

### Free Foodgrains to Beneficiaries Under NFSA

- The Union government said it would provide **free foodgrains** to beneficiaries under the National Food Security Act (NFSA), 2013, as per their entitlement, for a year beginning January 2023.
- It has, however, discontinued the Pradhan Mantri Garib Kalyan Anna Yojana launched in April 2020 amid Covid-19.

### National Food Security Act (NFSA)

- The NFSA, 2013 was notified to provide for food and nutritional security, by ensuring access to adequate quantity of quality food at affordable prices to people to live a life with dignity.
- It provides a **legal right** to persons belonging to “eligible households” to receive food grains at subsidised price/central issue prices under the Targeted Public Distribution System (TPDS).

- State governments are tasked with identifying Antyodaya Anna Yojana (AAY - poorest of the poor) and priority households (PHH) beneficiaries within the TPDS-covered population.

- Every person in the PHH category receives 5 kg of food grains per month at - **rice at Rs 3/kg, wheat at Rs 2/kg and coarse grain at Re 1/kg.**

- Each Antyodaya Anna Yojana (AAY) household gets Rs 35 kg of food grains per month.

### Pradhan Mantri Garib Kalyan Anna Yojana (PM-GKAY)

- PM-GKAY is a food security welfare scheme announced by the Central Government in March 2020, during the Covid-19 pandemic.
- It is a part of Pradhan Mantri Garib Kalyan Package (PMGKP) to help the poor fight the battle against Covid-19.
- **Objective:** To feed the poorest citizens of India by providing grain through the Public Distribution System, to all the **priority households** (ration card holders and those identified by the Antyodaya Anna Yojana scheme).
- **Implementing Agency:** Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution
- **Nodal ministry:** Ministry of Finance.
- More than 80 crore beneficiaries are provided 5 kg free wheat/rice per person per month.
- This is *in addition to the 5 kg food grains already provided to the beneficiaries under the National Food Security Act, 2013.*
- It is known as the largest food security programme in the world.



- The Act covers up to 75% of the rural population and up to 50% of the urban population for receiving subsidised food grains (overall **67%** of the total population).

### Why NFSA and PM-GKAY Are Merged?

- The government decided to provide free foodgrains to 81.35 crore people for one year under the NFSA at an estimated cost of Rs 2 lakh crore.
  - PM-GKAY has been merged with the NFSA. Now, the entire quantity of 5 kg and 35 kg under the NFSA would be available free of cost.
- The discontinuation of PMGKAY comes at a time when the foodgrains stock has depleted over the months.
- With this decision, for the first time, India will have a Central food security legislation which gives the poor a 'right' to receive 5 kg foodgrains free of cost.
  - Earlier, the poor paid a small price of Rs 3 per kg for rice and Rs 2 per kg for wheat.
- The decision softens the blow the poor may suffer with the PM Garib Kalyan Anna Yojana being discontinued by the end of the month.

WHY PMGKAY, NFSA WERE MERGED	
<b>LOWER FOODGRAIN STOCKS</b> As on Nov 30, combined stock of rice (115.42 lakh metric tonne) and wheat (190.27 LMT) was at 305.69 LMT. This was lower than the figure of 591.56 LMT (rice 213.03 LMT, wheat 378.53 LMT) on Nov 30, 2021.	<b>HIGHER ECONOMIC COST</b> Economic cost for rice has increased to Rs 3,670.04 per quintal this year from Rs 3,597.17 last year. For wheat, it has gone up to Rs 2,588.70 per quintal from Rs 2,4999.69 per quintal last year.

### Food Allocation And Estimated Bill

- As per the latest allocation order for December, 13.67 lakh metric tonnes of wheat and 31.72 lakh metric tonnes of rice are required under the NFSA.
- The monthly requirement of the PMGKAY stood at about 40 lakh metric tonnes (wheat: 7 lakh metric tonnes and rice: 33 lakh metric tonnes).
- Discontinuing the PMGKAY would, however, save **the government Rs 15,000 crore a month or about Rs 1.8 lakh crore a year.**

FOODGRAIN ALLOCATION UNDER NFSA (FOR FY23, IN LMT)				
	Rice	Wheat	Nutri-cereals	Total
Antyoday Anna Yojana	71.07	28.68	0	99.75
Priority Households	272.8	144.76	6.3	423.86
Targeted PDS (tide over)	20.94	5.46	0	26.4
<b>Total under Targeted PDS</b>	<b>364.81</b>	<b>178.9</b>	<b>6.3</b>	<b>550.01</b>

### Govt To Extend PM Gati Shakti Project To Cover Social Sector

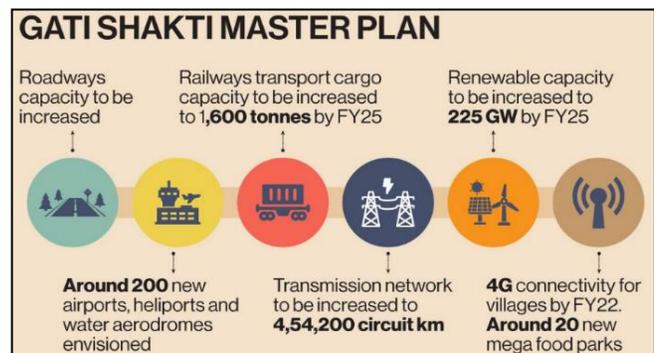
The Commerce and Industry Ministry's Department for Promotion of Industry and Internal Trade (DPIIT) has begun working with five social sector departments, to improve the efficiency of social sector infrastructure with the help of **PM Gati Shakti initiative.**

### PM GatiShakti - National Master Plan for Multi-modal Connectivity

- It is a technology-based master plan for multi-modal connectivity (launched in October 2021), to give more speed (Gati) and power (Shakti) to infrastructure projects by connecting 16 Ministries, including Railways and Roadways, on one digital platform.
- While the Government has not specified the size of the programme in financial terms, it will subsume the Rs 110 lakh crore **National Infrastructure Pipeline** (launched in 2019).

### Six Pillars of PM GatiShakti

- **Comprehensiveness:** It will include all the existing and planned initiatives of various ministries and departments with one centralised portal.
  - **For example,** it will incorporate the infrastructure schemes of various Ministries



and State Governments like Bharatmala, Sagarmala, UDAN etc.

➤ It will also cover economic zones like textile clusters, electronic parks, etc.

- **Prioritisation:** It will enable different departments to prioritise their projects through cross-sectoral interactions.
- **Optimisation:** It will assist different ministries in planning for projects after the identification of critical gaps. **For example**, for the transportation of goods the plan will help in selecting the most optimum route in terms of time and cost.
- **Synchronisation:** It will help in synchronising the activities (different layers of governance) of each department in a holistic manner by ensuring coordination of work between them.
- **Analytical:** It will provide the entire data at one place with **GIS-based spatial planning**, enabling better visibility to the executing agency.
  - For this, spatial planning tools with ISRO imagery developed by BiSAG-N (Bhaskaracharya National Institute for Space Applications and Geoinformatics) will be leveraged.
- **Dynamic:** All ministries and departments will now be able to visualise, review and monitor the progress of cross-sectoral projects.

### Significance

- Integrated planning and coordinated implementation.
- Institutionalising holistic planning for stakeholders.
- Integrated and seamless connectivity.
- **Better feedback and review mechanism:** The GIS platform will give on-ground progress of the projects.
- Easy planning and execution of projects.
- Improves Ease of Living as well as Ease of Doing Business.
- **Boosting the Indian economy:** Reducing logistics costs → strengthening supply chains → boost the global competitiveness of local products → help India become an attractive investment destination.

### Progress

- Under the PM Gati Shakti plan, all logistics and connectivity infrastructure projects worth more than 500 crore are channelled through the Network Planning Group (NPG).
- Over 250 critical infrastructure projects of different ministries, including rail, road and ports, have been examined and recommended by the NPG since last October 2021.
- Over 1,994 layers of data, including that of land, ports, forests and highways, are available on the portal.
- According to the DPIIT, the PM Gati Shakti program is working well for infrastructure development projects and has just begun collaborating with social sector departments to see how the initiative may be used to enhance the functioning of these sectors.
- **For example**, apart from building schools and hospitals, the projects could also include transporting children from villages to a larger school, planning **anganwadi locations using the data layers** through PM Gati Shakti.
- **The five social sectors** departments are health, women and child development, rural development and panchayat raj, education, housing and urban affairs.
- Furthermore, it is proposed that the scope be broadened to include the culture ministry in order to strengthen the infrastructure surrounding monuments.

## Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)

Digitally capturing the attendance of workers employed under the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) has been made universal by the Centre from January 1, 2023.

- The Union government, arguing for transparency and accountability in May 2021, had started a pilot project to capture attendance via a mobile application, the National Mobile Monitoring System (NMMS).
  - Initially capturing attendance via the app was made compulsory for all worksites with 20 or more workers.
- In the latest order, dated December, the Ministry has ordered that digitally capturing attendance is now mandatory for all worksites, regardless of the number of workers engaged.

{For more on MGNREGA refer The Recitals-August 2022}

## Namami Gange Programme

- The Prime Minister of India recently highlighted the global appreciation for the country's flagship **Namami Gange Programme** for Ganga rejuvenation, giving credit to people's participation in the programme.
- The United Nations (UN) has recognised the initiative as one of the top 10 World Restoration Flagships and awarded it on 14th December 2022 - **the World Restoration Day**, at the COP15 to the CBD in Montreal, Canada.

### About Namami Gange Programme

- It is an **integrated conservation mission**, approved as 'Flagship Programme' by the Union Government in 2014 with budget outlay of Rs.20,000 Crores.
- It is administered by the **Ministry of Jal Shakti's** Department of Water Resources, River Development and Ganga Rejuvenation, to accomplish the twin objectives of -
  - Effective abatement of pollution,
  - Conservation and rejuvenation of National River Ganga.
- The program would be implemented by the **National Mission for Clean Ganga (NMCG)**, and its state counterpart organisations i.e., **State Program Management Groups (SPMGs)**.
  - NMCG is the implementation wing of National Ganga Council (NGC replaced the National Ganga River Basin Authority).
  - NGC was created in 2016 under the River Ganga (Rejuvenation, Protection and Management) Authorities Order, 2016, and is headed by the PM.
- In order to implement the programme, a **three-tier mechanism** has been proposed for project monitoring comprising of:
  - **National level:** A high-level task force chaired by **Cabinet Secretary** assisted by NMCG,
  - **State level:** State level committee chaired by **Chief Secretary** assisted by SPMG
  - District level committee chaired by the **District Magistrate.**



- Its implementation has been divided into -
  - Entry-Level Activities (for immediate visible impact),
  - Medium-Term Activities (to be implemented within 5 years of time frame) and
  - Long-Term Activities (to be implemented within 10 years).

### Key Achievements Under The Programme

- **Creating Sewage Treatment Capacity:** 98 sewage projects have been completed in the states of UK, UP, Bihar, Jharkhand, West Bengal, etc.
- **Creating River-Front Development:** The projects for the construction, modernisation, and renovation of 267 Ghats/Crematoria and Kunds/Ponds have been initiated.
- **River Surface Cleaning:** For collection of floating solid waste from the surface of the Ghats and River and its disposal are afoot and pushed into service at 11 locations.
- **Biodiversity Conservation:** Cadre of volunteers (**Ganga Praharis**) have been developed and trained to support conservation actions in the field
- **Public Awareness:** Ganga Praharis and Ganga Doots are engaged in spreading awareness through planting trees, cleaning ghats, Ganga Aarti, painting and poems.
- **Industrial Effluent Monitoring:** Regulation and enforcement through regular and surprise inspections of Grossly Polluting Industries (GPIs) is carried out for compliance verification against stipulated environmental norms.
- **Deploying best available knowledge and resources across the world:** Countries such as Australia, United Kingdom, Germany, Finland, Israel, etc., have been collaborating with India for Ganga rejuvenation.

### One Rank One Pension Scheme

The Union Cabinet recently approved pension revision for pensioners from the armed forces and their families under the One Rank One Pension (OROP) scheme with effect from July 2019.

- With this, more than 25.13 lakh people, including over 4.52 lakh new beneficiaries, armed forces pensioners and family pensioners will benefit.
- The Supreme Court had earlier this year directed the government to quickly carry out the OROP re-fixation exercise upon the expiry of the five-year time-frame in July 2019, as was promised when the scheme was implemented with effect from July 2014.

### One Rank One Pension Scheme

- In simple terms, OROP implies that *uniform pension be paid to the Armed Forces personnel retiring in the same rank with the same length of service, regardless of their date of retirement.*
- Earlier, ex-servicemen used to get pensions as per the Pay Commission's recommendations of the time when they had retired.



- A Pay Commission examines and reviews the existing pay structure & recommends changes in the salary, allowances, and other facilities for civil employees as well as for the armed forces.
- Under OROP, future enhancements in the rates of pension would be automatically passed on to the past pensioners.
  - This implies *bridging the gap between the rate of pension of current and past pensioners at periodic intervals i.e. every 5 years.*
- Ex-servicemen drawing pensions will benefit from the OROP scheme, especially those who retired before **2006**.
  - Because at present, pensioners who retired before 2006 draw less pension than their counterparts and even their juniors.
- The scheme covers all three services — **Air Force, Navy and Army.**

## How Much Does Ministry Of Defence Spend On Pensions?

- Soldiers retire early and remain eligible for pension for much longer than other employees. Soldiers usually retire at age 35.
- Currently, the approximate Defence pensioners are 33 lakhs.
  - The actual expenditure of the Defence Ministry on pensions was Rs 1.18 lakh crore in 2019-2020, Rs 1.28 lakh crore in 2020-2021.
- The Defence Ministry's pension-to-budget ratio is the highest among all ministries, and **pensions are more than one-fifth of the total defence budget.**

## Annual Expenditure

- The estimated annual expenditure for the implementation of the revision has been calculated as approximately Rs. 8,450 crores based on 31% Dearness Relief (DR).
- Arrears from July 1, 2019 to December 31, 2021 have been calculated as over Rs. 19,316 crore based on DR at 17% for the period from July 1, 2019 to June 30, 2021 and at 31% for the period from July 1, 2021 to December, 2022.

## Social Progress Index

- The report, titled '**Social Progress Index: States and Districts of India**', was released by Economic Advisory Council-Prime Minister (EAC-PM) chairman Bibek Debroy
- **Puducherry**, followed by Lakshadweep and Goa, has bagged the top slots for its remarkable performance across the components like personal freedom and choice, shelter, and water and sanitation.

## About Social Progress Index (SPI)

- Formulated by the Institute for Competitiveness and Social Progress Imperative, **SPI is a comprehensive tool** that can serve as a holistic measure of a country's social progress at the national and sub-national levels.
- The index assesses states and districts based on 12 components across three critical dimensions of social progress - **Basic Human Needs, Foundations of Wellbeing, and Opportunity.**

- **Basic Human Needs** assess the performance of states and districts in terms of Nutrition and Basic Medical Care, Water and Sanitation, Personal Safety and Shelter.
- **Foundations of Wellbeing** evaluates the progress made by the country across the components of Access to Basic Knowledge, Information and Communication, Health and Wellness, and Environmental Quality.
- **Opportunity** focuses on Personal Rights, Personal Freedom and Choice, Inclusiveness, and Access to Advanced Education.

- Based on the SPI scores, states and districts have been ranked **under six tiers of social progress, with** the Tier 1 indicating Very High Social Progress, while the Tier 6 indicating Very Low Social Progress.

Tier-I: Very High Social Progress		
State	SPI	Rank
Puducherry	65.99	1
Lakshadweep	65.89	2
Goa	65.53	3
Sikkim	65.10	4
Mizoram	64.19	5
Tamil Nadu	63.33	6
Himachal Pradesh	63.28	7
Chandigarh	62.37	8
Kerala	62.05	9
Tier-VI: Very Low Social Progress		
State	SPI	Rank
Assam	44.92	34
Bihar	44.47	35
Jharkhand	43.95	36

## Significance

- By evaluating change in the performance of some key indicators since 2015-16, the report presents a **broad picture of the social progress** in India.
- In addition, the report highlights progress made by the **112 aspirational districts in the country**.
- The report also dwells on **India's performance based on the global SPI** that is brought out by Social Progress Imperative since 2013.
  - In the latest (2022) report, India has been ranked 110th (out of 169 nations) on the index and India's aggregate SPI score of 60.2 in 2022 is slightly lower than the world average of 65.2.
- The report also highlights that Aizawl (Mizoram), Solan (Himachal Pradesh) and Shimla (Himachal Pradesh) have emerged as the top three best-performing districts.
- The index also highlights that **27 out of 112 districts under the Aspirational District Programme (ADP)** have scored above the national average on the SPI.
- It highlights that over 40% of J&K districts belong to the "high social progress category". Shopian has the highest SPI score of 63.1, attributable to the district's achievements **across water and sanitation, environmental quality, and inclusiveness**.

## Rajya Sabha Passes Bill To Extend ST Status To Gond Community In Four Districts Of UP

The Rajya Sabha passed the Constitution (Scheduled Castes and Scheduled Tribes) Orders (2nd Amendment) Bill-2022, which seeks to give the ST status to Gond community in 4 districts (Sant Kabir Nagar, Sant Ravidas Nagar, Kushinagar and Chandauli) of UP. The demand for inclusion of the Gond community in the ST list was first raised in the 1980s.

## Process of Granting ST Tag In India

- **Constitutional Provision:** Article 342 of the Indian Constitution -
  - **The President** may with respect to any State/UT and where it is a State after consultation with the Governor, may notify the STs in relation to that State/UT.
  - **The Parliament** may by law include or exclude from the list of STs specified in a notification issued.
- **The Process:**
  - **It begins at the State or UT level**, with the concerned government seeking the addition or exclusion of a particular community from the SC/ST list.
    - Following this, the proposal is sent to the **Union Ministry of Tribal Affairs**, which sends it to the **Registrar General of India (RGI)**, after examination.
    - Once approved by the RGI, the proposal is sent to the **National Commission for Scheduled Tribes (NCST)**, following which the proposal is sent back to the Union government, which introduces it (after inter-ministerial deliberations) in the Cabinet for final approval.
  - **The final decision rests with the President's office** issuing a notification specifying the changes under powers vested in it from Articles 341 (for SC) and 342(ST).
  - **The inclusion or exclusion** of any community in the ST/SC list come into effect **only after the President assents** to a Bill that amends the Constitution (STs) Order, 1950, after it is passed by both the Lok Sabha and Rajya Sabha.
- **Criteria to begin the process:** To establish whether a community is a ST, the government looks at several criteria, including its -

Ethnological  
traits

Traditional  
characteristics

Distinctive  
culture

Geographical  
isolation

Backwardness

## Gondi/Gond/Koitur People

- One of the largest tribal groups in India, Gonds are a Dravidian ethno-linguistic group.
- The Gond have formed many kingdoms of historical significance and are listed as a **ST** for the purpose of India's system of reservation.
- The 2011 Census of India recorded about 2.98 million Gondi (related to the Telugu) speakers.



## GOND TRIBE

Gonds are one of the largest tribal groups in the world. Most describe themselves as Gonds (hill people) or as Koi or Koitur

-  Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, Gujarat, Jharkhand, Karnataka, Telangana, Uttar Pradesh, West Bengal and Odisha.
-  Their staple food is two kinds of millet: Kodo and kutki. Rice is mostly consumed during festival feasts
-  Gonds believe that earth, water and air are ruled by Gods. **Persa Pen** is the most distinctive feature of the Gond religion
-  They engage in agriculture, growing crops such as grains and lentils and raising cattle. Most Gond used a method of farming called slash-and-burn agriculture, a type of shifting agriculture.

## Women Constitute One-Third Of Internet Users In India: Study

- As per a report titled '**India Inequality Report 2022: Digital Divide**', Women constitute only one third of internet users in India.
  - The report has been released by NGO Oxfam India.
- The report analyses primary data from the Centre for Monitoring Indian Economy's (CMIE) household survey from January 2018 to December 2021.
  - CMIE is a leading business information company. It functions as both an economic think tank and a provider of business intelligence information.
- It looks at CMIE's data on internet access, mobile ownership, computer, and broadband availability to assess the inclusivity of digital initiatives to deliver public services and entitlements.

## Key Highlights Of The Report

- **Digital Divide Based On Gender**
  - While 61% of men owned mobile phones in 2021, their access remained limited to just 31% women.
  - Indian women are 15 per cent less likely to own a mobile phone and 33 per cent less likely to use mobile internet services than men.
  - As per the report, in Asia-Pacific, India fares the worst with the widest gender gap of 40.4%.
- **Digital Divide Based On Employment Status And Caste**
  - 95 per cent of the salaried permanent workers have a phone whereas only 50 per cent of the unemployed (willing and looking for a job) have a phone in 2021.
  - While 8 per cent of the general caste have access to a computer or a laptop, less than 1 per cent of the Scheduled Tribes (ST) and 2 per cent of the Scheduled Castes (SC) afford it.
- **Rural-urban Digital Divide**
  - Despite registering a significant digital growth rate of 13 per cent in a year, only 31 per cent of the rural population uses Internet compared to 67 percent of their urban counterparts.
  - The report pointed out that contrary to popular belief, the use of computer devices has decreased in rural areas.
- **Uneven Distribution Among States**
  - Maharashtra has the highest internet penetration, followed by Goa and Kerala, while Bihar has the lowest, followed by Chhattisgarh and Jharkhand.

- **India's Growing Inequality Is Accentuated Due To The Digital Divide**

- The use of digital technologies in delivering essential services such as education and health is further increasing the inequalities in India.
  - During Covid-19 lockdown, many parents faced challenges in supporting their children's access digital education, with signal and internet speed becoming the biggest issues in private schools.
- The report highlights how digital technologies are accessible to the rich and privileged.
- As a result, people without devices and the internet get further marginalised due to difficulties in accessing education, health, and public services.

- **India's Rank In UN's e-Participation Index (2022)**

- The report highlighted that India ranked 105 out of 193 nations in UN's e-participation index (2022).
- The index is a composite measure of 3 important dimensions of e-government, namely provision of online services, telecommunication connectivity and human capacity.

- **Suggestions**

- The report urged the Union and state governments to ensure universal access to internet connectivity by investing in digital infrastructure to not only make the internet affordable but also push for greater accessibility to smartphones.
- The digital literacy camps be conducted, especially in rural India, to teach the use of technology in schools, and digitise panchayats.
- It further urged the govt to establish a responsive and accountable grievance redressal mechanism to handle edtech and health-tech related complaints by parents, children, and other consumers

## Zero Tolerance Towards Drugs

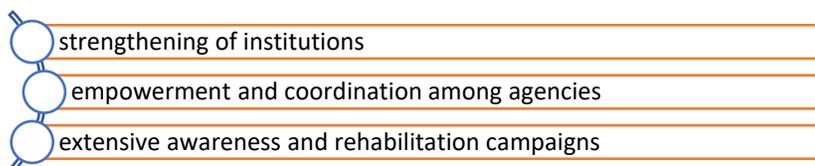
- During a debate in the Lok Sabha, Union Home Minister said that the government has zero-tolerance policy towards drugs.
- As a result of this policy, drug seizures and cases against traffickers went up in recent years.

### Key Highlights

- **Increased Drug Seizure**

- As per the data shared by the minister, 62.6-lakh kilo of drugs were seized between 2014 and 2022 as compared to 22.45-lakh kilo between 2006 and 2013.
- The value of the drugs seized went up from Rs 33,000 crore to Rs 97,000 crore in the same period.

- **Three-pronged Strategy:** The Home ministry has adopted a three-pronged strategy:



- **Empowering Paramilitary Forces On The Borders**

- The Centre has empowered the Border Security Force, Seema Suraksha Bal and Assam Rifles to register cases under the NDPS Act.
- Many states had criticised this step as they saw this empowerment as an encroachment on their jurisdiction.

## Reasons for Widespread Drug Abuse in India

- **To escape from hard realities of life:** The disintegration of old joint family system, decline of religious and moral values etc. lead to a rise in the number of drug addicts who take drugs to escape hard realities of life.
- **Loosening of the traditional methods of social control** leaves an individual vulnerable to the stresses and strains of modern life.
- **Peers pressure:** Many youths start using drug under the pressure from their friends, seniors at educational institutions, or by members of their informal groupings.
- **Easy Availability**
  - India is situated in the sense that on its west is the 'Golden Crescent' and on east is the 'Golden Triangle'.
    - Golden Crescent - Iran-Afghanistan-Pakistan
    - Golden Triangle - Thailand, Laos, and Myanmar
  - The usage of drugs in India is increasing, particularly in the border areas due to their porous nature.
- **Economic Prosperity**
  - The agricultural reforms and other industrial activity have led to increase in income in regions like Punjab, Haryana, Maharashtra etc.
  - Increase in disposable money and easy availability of drugs has led to increase in its use.

## Steps Taken

- **Article 47** of the Indian Constitution directs the State to endeavour to bring about prohibition of the consumption of intoxicating drugs injurious to health.
- India is a **signatory to**
  - Single Convention on Narcotic Drugs 1961, as amended by the 1972 Protocol,
  - Conventions on Psychotropic Substances, 1971 and
  - United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988.
- **Legislative Steps**
  - Enacted Drugs and Cosmetics Act, 1940, Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985 and The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.
- **Institutions Involved**
  - The **Narcotics Control Bureau (NCB)** was created in 1986 as a nodal agency to fight against this menace.
  - Ministry of Health and Family Welfare (MoHFW) and Ministry of Social Justice and Empowerment (MSJE) are involved with alcohol and drug demand reduction policies and drug de-addiction programme.
  - In order to prevent misuse of dual-use drugs, a permanent inter-ministerial committee has been formed with the ministry of health and family welfare and the ministry of chemicals.
- **Technological Intervention**
  - The NCORD portal has been launched as an effective mechanism for information exchange between various institutions/agencies.
    - The Narco Coordination Centre (NCORD) mechanism was set up by the Ministry of Home Affairs (MHA) in the year 2016 for effective drug law enforcement.
  - Besides information exchange, the portal will also help in knowledge management.
  - The NCB is working to launch a helpline soon.

# ECONOMY AND INFRASTRUCTURE

## Regenerative Agriculture

- Regenerative agriculture has recently received much attention from all stakeholders, including producers, policymakers, scientists and consumers.
- Its importance was also emphasized in the Intergovernmental Panel on Climate Change (IPCC) report on “*Climate Change and Land.*”
- The report listed it as a ‘sustainable land management practice’ focused on ecological functions that can be effective in building resilience of agroecosystems.

## Need for Regenerative Agriculture

- The current **intensive** agriculture system has led to soil degradation and constant losses. There may not be enough soil to feed the world in next 50 years.
- Soil fertility and biodiversity are *decreasing* across the globe. It is necessary to regenerate soil on more than four billion acres of cultivated farmland to feed the world, keep global warming below 2 degrees Celsius and stop biodiversity loss.

## Regenerative Agriculture

- It is a **holistic** farming system that focuses on soil health, food quality, biodiversity improvement, water quality and air quality.
- It can be **practiced under many names** and is often also referred to as — *agroecological farming, alternative agriculture, biodynamic agriculture, carbon farming, inclusive nature farming, conservation agriculture, green agriculture, organic regenerative agriculture and sustainable agriculture.*
- However, regenerative agriculture is open, as there cannot be a one-size-fits-all approach to soil regeneration.
- It works on the premise that healthy soils are the foundation of regenerative agriculture, which in turn enables the **symbiotic relationship** between plants and soil microorganisms living in the soil.
- It improves soil health through practices that increase soil organic matter, biota and biodiversity. It also aims at enhancing water-holding capacity and carbon sequestration.
- It employs reduced/zero tillage (mechanical manipulation of soil for the purpose of crop production)
- It sticks to the following principles:

- **Minimize soil disturbance** through conservation tillage
- **Diversify crops** to replenish nutrients and disrupt pest and disease lifecycles
- **Retain soil cover** using cover crops
- **Integrate livestock**, which adds manure to the soil and serves as a source of carbon sinks.

## Benefits

- Permanent pastures can trap large amounts of carbon and water, reducing farm emissions and polluted runoff. Healthy soil protects land from floods and drought and provides crops with higher nutrient density.
- Thus, regenerative agriculture builds soil health, supports biodiversity and returns carbon and nutrients to the soil.
- It also provides habitat and food for diverse species and is beyond sustainability.
- Overall, regenerative agriculture improves the ecosystem’s health, beginning with soil fertility, through a holistic systems approach that includes the health of the animals, farmers and community.

- It builds resilience and mitigates the effects of extreme weather caused by a changing climate.

### Scheme for Procurement of Aggregate Power

- The **Ministry of Power** launched a Scheme for Procurement of Aggregate Power of 4500 MW on competitive basis for 5 years on **Finance, Own & Operate (FOO)** basis under the SHAKTI Policy.
- **PFC Consulting Ltd**, a wholly-owned subsidiary of PFC Ltd, has been designated as the **nodal agency** by the Ministry of Power.
- PFC Consulting Ltd has invited **bids** for the supply of 4,500 MW.
- The supply of electricity will commence from April 2023. The Ministry of Coal has been requested to allocate around 27 Million Tonnes per Annum (MTPA) for this.
- This scheme is expected to help the states that are facing power shortage and also help generation plants to increase their capacities.



### SHAKTI Policy



- **SHAKTI (Scheme for Harnessing and Allocating Koyala Transparently in India) policy** was approved in 2017 to provide coal linkages to the power plants which do not have linkage.
- Thus, helping the generators to get cheaper coal and thereby **reduction in cost of generation.**

#### Objective

- Its aim is to ensure the availability of coal to all the thermal power plants in India, in a way that is **transparent and objective.**
- It aims to transfer the benefits of linkage coal to the **end consumers.**
- The scheme is supposed to be **beneficial not just for the infrastructure sector, but also for the public sector banks** which have huge loans unpaid at the end of the power companies.
  - The companies, which did not have coal linkages before the introduction of the Shakti, would benefit when they would get domestic fuel supplies through auction at competitive rates.
- It also aims to **reduce the dependence on imported coal and promote domestic industries.**

### Extension of PM SVANidhi Scheme

The Union Government extended the **PM Street Vendor's AtmaNirbhar Nidhi** (PM SVANidhi) scheme beyond March 2022 till December 2024.

#### PM SVANidhi Scheme

- Launched in 2020, it is a **Central Sector Scheme** fully funded by the **Ministry of Housing and Urban Affairs.** The scheme facilitates **affordable collateral-free loans to street vendors.**
- The **objective** of the scheme is to:

Facilitate working capital loan	• Vendors can take <u>working capital loan</u> of up to ₹10,000, that is repayable in monthly instalments within one year
Incentivize regular repayment	• A timely repayment ensures that the vendor gets a <u>credit score</u> and is eligible for a higher loan
Reward digital transactions	• To incentivize adoption of digital transactions, a cashback of up to Rs 100 per month is given to street vendors

#### Eligibility

- The scheme is available for beneficiaries belonging to only those States/UTs which have notified Rules and Scheme under **Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014.**
- Beneficiaries from Meghalaya, which has its own State Street Vendors Act may, however, participate.

#### Extension of Provisions of the Scheme

- The scheme has been extended with the following provisions:
  - Extension of lending period till December 2024.

- Introduction of 3rd loan of upto ₹50,000 in addition to 1st & 2nd loans of ₹10,000 and ₹20,000 respectively.
- Extension of 'SVANidhi Se Samridhhi' component for **all beneficiaries** of the scheme across the country.
  - **SVANidhi se Samridhhi component** was launched in 2021 in 125 cities 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 program.
- **42 lakh street vendors** are to be provided benefits under the scheme by December, 2024.
  - As of November, 2022, **31.73 lakh street vendors** have availed benefit of 1st loan of ₹ 10,000 loan.
- Originally, the scheme had envisaged to facilitate loans for an amount of Rs. 5,000 crore. The extension has increased the loan amount to Rs. 8,100 crore.

### Benefits Of The Extension

- The extension will assist to institutionalise the access to formal credit channels, provide an assured source of credit to help them plan their business expansion and increase the adoption of digital transactions.
- It will also reduce the impact of potential NPAs on the lending institutions and provide holistic socio-economic upliftment for the street vendors and their families.

### Street Vendors In India

- Any person selling goods or services, who does not have a permanent shop is considered a street vendor.
- There are an estimated 50-60 lakh street vendors in India, with the largest concentrations in the cities of Delhi, Mumbai, Kolkata, and Ahmedabad. Most of the street vendors across the country are migrants.

**Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014**



- It was enacted to **regulate street vendors in public areas and protect the livelihood rights of street vendors.**
- As per the Act, **vending and non-vending zones** have to be demarcated and all street vendors have to be accommodated in the vending zones.
- As reported by the States/UTs, a total of 13,403 vending zones have been identified so far.
- The Act provides for a survey of all existing hawkers and certificates of vending are to be issued to all existing hawkers identified in the survey.
- Further, no hawker can be removed from his/her spot unless and until the survey has been done and certificates of vending issued.
- In order to prevent harassment of street vendors, the Act states that **no street vendor shall be harassed under any other law in force.** Moreover, the Street Vendors Act will **override any other law related to street vendors.**

**Town Vending Committees**

- The Act provides for the formation of Town Vending Committees (TVC) in various districts.
- The TVC is headed by the municipal commissioner. Since the street vendors are the biggest stakeholders, members representing them should not be less than 40% of the TVC.
- The TVC has to organise the survey, decide on vending/non-vending zones, issue vending certificates, decide on vending fees that the hawkers should pay the municipality, publish the street vendor's charter etc.

### Dare to Dream Contests

- A total of 5,637 applications have been received under three Dare to Dream Contests in the last three years.
- It was initiated in memory of the former President of India, Dr APJ Abdul Kalam.
- Dare to Dream is a scheme to promote individuals and start-ups (recognised by DPIIT and with Indian founders) for innovation in the area of defence and aerospace.
- Defence Research and Development Organisation (DRDO) has been launching Dare to Dream Contest every year **since 2019.**
  - Dare to Dream 2.0 and Dare to Dream 3.0 were launched in 2020 and 2021, respectively
- DRDO provides a unique opportunity for start-ups and innovators to solve some key challenges in emerging technologies that can help boost India's defence & aerospace capabilities.

- The **selection criteria** for evaluation of the entries are completeness of proposal, scientific soundness, design completeness, merit, technological readiness level achieved and innovation.
- DRDO supports awarded ideas to develop a Prototype through Technology Development Fund (TDF) scheme.

#### Technology Development Fund (TDF)

- TDF has been established to promote self-reliance in defence technology as a part of **Make in India** initiative.
- It is a programme of **Ministry of Defence** executed by DRDO meeting the requirements of Tri-Services, Defence Production and DRDO.
- The scheme encourages participation of public/private industries especially MSMEs to create an eco-system for enhancing cutting edge technology capability for defence application.

#### Pradhan Mantri Adi Adarsh Gram Yojna

- Ministry of Tribal Affairs has revamped the existing Scheme of **Special Central Assistance to Tribal Sub-Scheme (SCA to TSS)** and renamed it to **Pradhan Mantri Adi Adarsh Gram Yojna (PMAAGY)**, for implementation during 2021-22 to 2025-26.
- Under it, the Ministry is working to develop 36,428 villages with at least 50% tribal population and 500 STs across the country into model tribal villages (Adarsh Gram), covering a population of 4.22 crore.
- The main objective of this scheme is to achieve **integrated socio-economic development** of selected villages through **convergence approach**.
- It aims at mitigating gaps and providing basic infrastructure in villages with significant tribal population in convergence with funds available under different schemes in Central Scheduled Tribe Component.
- A sum of ₹20.38 lakh per village as Gap-filling has also been provisioned for approved activities including administrative expenses under PMAAGY.
- The scheme includes the following components:



Preparing Village Development Plan based on the needs, potential, and aspirations

Maximizing the coverage of individual / family benefit schemes of the Central / State Governments

Improving the infrastructure in vital sectors like health, education, connectivity and livelihood

- It envisions to mitigate gaps prominently in **8 sectors** of development viz: Road connectivity, Telecom connectivity, School, Anganwadi Centres, Health Sub-Centre, Drinking water facility, Drainage; and Solid waste management.

#### GI Tag to Nine Products

- Recently, **nine new items**, including gamocha of Assam, Tandur red gram of Telangana, Raktsey Karpo apricot of Ladakh, and Alibag white onion of Maharashtra, were given the GI tag. The list includes five GI tags for Kerala, for its agricultural produce.
- With this, the total number of GI tags in India comes to 432. **Karnataka and Tamil Nadu are states with the highest number of GI tags**, followed by Kerala (35), Uttar Pradesh (34), and Maharashtra (31).
- The World Intellectual Property Organisation defines a GI as a sign that can be used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- GIs are typically used for agricultural products, natural or a manufactured product (handicrafts and industrial goods) like, Basmati rice, Darjeeling Tea, Chanderi Fabric, Mysore Silk, Kullu Shawl, Kangra Tea, Thanjavur Paintings.

- The tag conveys an assurance of quality and distinctiveness, which is essentially attributable to the place of its origin.
- Internationally, GIs are covered as an element of intellectual property rights under the **Paris Convention** for the Protection of Industrial Property. They are also covered under the Trade Related Aspects of Intellectual Property Rights (**TRIPS**) Agreement.

#### Gamocha from Assam

- Gamocha literally means a towel. It is a handwoven rectangular cotton piece of cloth known for its **distinctive red border and floral motifs**.
- It is mostly woven out of white threads with colourful and intricate inlays in red. There are different varieties woven for religious and auspicious occasions.
- It is one of the most recognizable cultural symbols of the Assamese people. It is an integral part of all socio-religious ceremonies in the state and is considered as an Assamese identity and pride.
- It is traditionally offered to elders and guests as a mark of respect and honour by Assamese people.
- A Gamocha meant for exchange during Bihu festival is known as **Bihuwan**.

#### Tandur Red Gram of Telangana

- It is a local variety of pigeon pea which is mainly grown in the rainfed areas of the Tandur and nearby places in the state.
- As per the researchers, the fertile deep black soil with clay minerals specifically in Tandur Region along with huge limestone deposits can be attributed to the specific quality traits of Tandur Redgram.
- It contains about 24 percent protein, which is almost three times that of cereals, and is popularly known for its very good taste, and better cooking quality.

#### Raktsey Karpo- the organic sweetness from Ladakh

- Raktsey Karpo, belongs to the **family of apricot**. Packed with vitamins and low on calories, it is **rich in sorbitol** – a **natural glucose substitute** that can be consumed by diabetics.
- The oil from its seed is known to relieve back aches and joint pain. These apricots are grown organically as individual on trees or in clusters without using any chemical fertilisers.

#### Alibag White Onion of Maharashtra

- It is known for its unique sweet taste, no-tear factor, and medicinal properties.
- The soil of Alibaug taluka has low sulphur content & its geo-climatic conditions make it unique compared to other white onion-producing areas.
- White onions are an excellent source of antioxidants that contain more than 25 different types of flavonoids which lowers the risk of developing chronic diseases like diabetes, cancer, and heart disease.

#### GI to five agricultural products of Kerala

The five agricultural products from Kerala that have been awarded GI tag are Attappady Attukombu Avara (beans), Attappady Thuvara (red gram), Onattukara Ellu (sesame), Kanthalloor-Vattavada Veluthulli (garlic), and Kodungalloor Pottuvellari (snap melon).

#### Attappady Attukombu Avara (beans)

- Cultivated in the Attappady region of Palakkad, is curved like a goat's horn as its name indicates.
- Its **higher anthocyanin** content imparts **violet colour** in the stem and fruits. Anthocyanin is helpful against cardiovascular diseases along with its antidiabetic properties.

- Other than this, calcium, protein, and fibre content are also high. Its **higher phenolic content** imparts resistance against pest and diseases, making the crop suitable for organic cultivation.

#### Attappady Thuvara (red gram)

- It has seeds with white coat. Compared to other red grams, Attappady Thuvara seeds are bigger and have higher seed weight.
- This delicious red gram, which is used as vegetable and dal, is rich in protein, carbohydrate, fibre, calcium and magnesium.

#### Onattukara Ellu (sesame)

- **Onattukara Ellu** and its oil are famous for its unique health benefits. Relatively higher antioxidant content in Onattukara Ellu helps in fighting the free radicals, which destroy the body cells.
- Also, the high content of unsaturated fat makes it beneficial for heart patients.

#### Kanthalloor-Vattavada Veluthulli (garlic)

- Compared to the garlic produced in other areas, the garlic from Kanthalloor-Vattavada area contains higher amount of sulphides, flavonoids, and proteins.
- It is rich in allicin, which is effective against microbial infections, blood sugar, cancer, cholesterol, heart diseases, and damages to blood vessels. The garlic cultivated in this area is also rich in essential oil.

#### Kodungalloor Pottuvellari (snap melon)

- Cultivated in Kodungalloor and parts of Ernakulam it is consumed as juice and in other forms.
- This snap melon, which is harvested in summer, contains high amount of Vitamin C.
- Compared to other cucurbits (gourd family), nutrients such as calcium, magnesium, fibre and fat content are also high in Kodungalloor Pottuvellari.

#### Initiatives for GI Tags

- Several initiatives have been undertaken by Department for Promotion of Industry and Internal Trade (DPIIT) where GI products showcased Indian tradition, culture and enterprising activities under a single umbrella like GI Pavilion, India GI fair, GI Mahotsav.
- Furthermore, recently, the government has supported the promotion of GIs by approving an expenditure of Rs. 75 crores for three years for promotion at awareness programmes.

#### Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme

- The Ministry of Minority Affairs (MoMA), shared that the Pradhan Mantri Kaushal Ko Kaam Karyakram (PMKKK) has now been named as **Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme**.
- The integrated scheme **converges five erstwhile schemes** of MoMA viz. Seekho aur Kamao, USTTAD, Hamari Dharohar, Nai Roshni and Nai Manzil.
- The scheme has been approved by the Cabinet for the period of **15th Finance Commission**.
- PM VIKAS aims to **improve livelihoods of the minorities**, particularly the artisan communities, using the components of skill development, education, women leadership & entrepreneurship.
- These components complement each other in the ultimate objective of the scheme to increase the incomes of the beneficiaries and provide support by facilitating **credit and market linkages**.

### Seekho aur Kamao (Learn and Earn)

- It is a **placement-linked skill development scheme** for minority youth in the age group of 14-45 years.
- It aims to upgrade the skills of minority youth in various modern/traditional skills depending upon their qualification, present economic trends and market potential.

### Upgrading the Skills and Training in Traditional Arts/ Crafts for Development (USTTAD)

- USTTAD was launched to **preserve the rich heritage** of traditional arts/crafts of minorities.
- It aims at capacity building and upgrading the traditional skills of **master craftsmen/artisans**, training of minority youths in various identified traditional arts/crafts, and developing national and international market linkages.

### Hamari Dharohar

- Hamari Dharohar scheme has been formulated to preserve rich heritage of minority communities under overall concept of Indian culture which includes curating exhibitions, preservation of literature/ documents etc.

### Nai Roshni

- It aims to empower and enhance confidence in **minority women** by providing knowledge, tool and techniques **for leadership development of women.**
- It is a six-days non-residential/five-days residential training programme conducted for women from minority community between the age group of 18 years to 65 years.
- The training modules cover areas related to programmes for women health and hygiene, legal rights of women, financial literacy, digital literacy, swachh bharat, life skills, and advocacy for social and behavioural changes.

### Nai Manzil

- It aims to benefit the youth (both men & women) belonging to minority communities of 17-35 years of age, who do not have formal school leaving certificate, i.e., those in the category of school dropouts or educated in community education institutions like Madrasas.
- It provides a combination of formal education (Class VIII or X) and skills to enable beneficiaries seek better employment and livelihood.

### Extension of Indian Footwear and Leather Development Programme

- The Union Government has approved the continuation of Indian Footwear and Leather Development Programme (IFLDP) till 2026 or till further review, whichever is earlier.
- Earlier, known as Indian Footwear Leather and Accessories Development Programme (IFLADP), it was announced for three financial years — 2017-18 to 2019-20.

#### IFLDP

- It is a **Central Sector Scheme** that aims at development of infrastructure for the leather sector, address environmental concerns specific to the leather sector, facilitate additional investments, employment generation and increase in production.
- It was launched by Department for Promotion of Industry and Internal Trade under the Ministry of Commerce and Industry.
- **Sub-schemes** approved under the programme include:

- Sustainable technology and environmental promotion (STEP);
- Integrated development of leather sector (IDLS);
- Establishment of institutional facilities (EIF);
- Mega leather footwear and accessories cluster development (MLFACD);
- Brand promotion of Indian brands in footwear and leather sector
- Development of design studios in footwear and leather sector.

### Impact Of The Programme

- The programme has a direct benefit towards quality employment generation especially for women, skill development, decent work, making the industry more environment friendly and prompting sustainable production system.
- Leather clusters located in different parts of the country have benefited in terms of reduction of poverty, gender equality, sector specific skill/education, etc., thus touching many of the Sustainable Development Goals (SDGs).
- Most of the **National Development Plans (NDP)** also align with the SDGs. NDPs such as economic growth, reduction in poverty, generation of employment, quality education/skills, gender equality, good health and well-being, infrastructure development, affordable and clean energy and other environmental benefits are well-served by the programme.

### Status of Indian Leather and Footwear Industry

- The leather industry in India accounts for around **13% of the world's leather production** of hides/skins and handles an annual production of about 3 bn sq. ft. of leather.
- The industry is known for its consistency in high export earnings and it is among the **top ten foreign exchange earners** for the country.
- India has an abundance of raw materials with access to **20% of world's cattle and buffalo** and **11% of the world's goat and sheep population**.
- It is an **employment intensive industry** providing job to more than **4 mn people**, mostly from the weaker sections of the society.
- Women employment is predominant in leather products industry with about 30% share. The industry in India has one of the youngest workforces with 55% of the workforce below 35 years of age.
- The country accounts for 9% of the world's footwear production and is the **second largest footwear producer and consumer** in the world.
- The **major production centres** of leather and footwear products in India are located in the States of Tamil Nadu, Andhra Pradesh, West Bengal, Uttar Pradesh, Maharashtra, Punjab, Haryana and Delhi.
- The **major markets** for Indian leather & footwear products are **USA**, Germany, U.K, Italy, France, Spain, Netherlands, U.A.E, China, Hong Kong, Belgium, and Poland.

### Non-performing Assets (NPAs) In Education Sector

Recently, data obtained under the Right to Information Act has shown worrying trends about education loans in the country.

#### Key Findings

- About **8% of all education loans** disbursed by 12 public sector banks (PSBs), where repayments have started, have turned into NPAs. This level of NPAs is higher than the overall NPAs in the banking system.
  - For education loans, students get a moratorium period of up to 12 months after they complete their studies.

- So, for a four-year BTech course, the repayment starts only after the completion of the fifth year if the student fails to get a job. The repayment starts early if the student starts earning.
- **PSBs** are the largest lender in the education loan sector and have a **market share of about 91%** – RRBs (regional rural banks) and private banks constitute the remaining 9% of the market.
- A **bulk of the defaults** in the education loan portfolio of banks comprises **low-value education loans** (that is, **loans up to Rs 7.5 lakh**).
- There is a significant gap between the default rate for loans disbursed to students in premier institutes as compared to those in **secondary institutes**.
  - About 239 institutes like the IITs, IIMs, NITs and AIIMS are categorised as premier institutes by banks.
- State Bank of India, Canara Bank, Union Bank of India and Indian Overseas Bank together constitute about 65% of the total loan portfolio of PSBs.
- The default rate in these four banks, for education loans to students in **premier institutes is 0.45%**, while the **overall average of defaults** is more than ten-times of that at **4.7%**.

### Impact

- Following the high rate of defaults in low-value education loans of PSBs, **banks have slowed such lending**, impacting students enrolled in secondary institutes across the country.
- The education loan disbursement target for public-sector banks during the current financial year has been set at about **13.5% lower** than total disbursement by all scheduled commercial banks in FY22.

Bank	Total Active Education Loans*	NPAs (%age of total)
SBI	₹ 27,027 cr	₹ 603 cr (2.23%)
Canara	₹ 13,192 cr	₹ 512.08 cr (3.88%)
UBI	₹ 7,372.76 cr	₹ 611.18 cr (8.29%)
IOB	₹ 4,046.21 cr	₹ 715.60 cr (17.69%)
Total loans by 12 PSBs	₹ 79,902.19 cr	₹ 6,246.42 cr (7.82%)

\* Till June 30; PSBs account for over 95% of education loans

- The target for education loan for the country's 12 PSBs for the current year is Rs 20,450 crore while loans worth a total Rs 23,640 crore were disbursed in the last financial year.
- Simply put, the poorer students in India who need a loan the most are at risk of being excluded because it doesn't make as much business sense for banks, even in the public sector, to provide education loans.

### Way Ahead

- The government has expressed concern over the slowdown in disbursement of education loans and asked the banks to expedite loan distribution, citing complaints about delay in sanction and denial on flimsy grounds.
- However, the key point to understand is the reason why students from secondary institutes fail to pay back: the **lack of adequate jobs and well-paying jobs**.
- Unless the economy is enabled to create more and better jobs, forcing banks to disburse more loans will only result in higher NPAs, **which, in turn, will require more taxes from the general public**.

### Model Loan Scheme

- According to the model loan scheme, education loans of up to Rs 4 lakh don't require any collateral to be provided by the borrower.
- Education loans of up to Rs 7.5 lakh can be obtained with collateral in the form of suitable third-party guarantee, and education loans above Rs 7.5 lakh require tangible collateral.
- In all these cases, co-obligation of parents is necessary.

### Non-performing asset (NPA)

NPA is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days. Banks are required to classify NPAs further into Substandard, Doubtful and Loss assets.

- **Substandard assets:** Assets which has remained NPA for a period less than or equal to 12 months.

- **Doubtful assets:** An asset would be classified as doubtful if it has remained in the substandard category for a period of 12 months.
- **Loss assets:** An asset is considered as a loss asset when it is “uncollectible” or has such little value that its continuance as a bankable asset is not suggested. However, there may be some recovery value left in it as the asset has not been written off wholly or in parts.

### Extension of RoDTEP Scheme

The Centre has recently expanded the scope of the export promotion scheme, **Remission of Duties and Taxes on Exported Products (RoDTEP)**, to include the chemicals, pharmaceuticals and iron & steel sectors.

#### Background of RoDTEP scheme

- The US had earlier challenged India’s key export subsidy schemes in the World Trade Organization (WTO).
- A dispute panel in the WTO ruled against India, stating that India’s export subsidy programmes violated WTO norms.
- The panel further recommended India to withdraw such export subsidy programmes. This led to the development of the RoDTEP Scheme, in order to ensure that India stays WTO-compliant.

#### Features of RoDTEP

- RoDTEP was formed to replace the **Merchandise Exports from India (MEIS) Scheme**. It became applicable from **January 2021**.
- RoDTEP is based on the globally accepted principle that taxes and duties should not be exported, and taxes and levies borne on the exported products should be either exempted or remitted to exporters
- Before the introduction of RoDTEP, GST taxes and import/customs duties for inputs required to manufacture exported products were either exempted or refunded.
- However, certain taxes/duties/levies are outside GST, and were not refunded for exports, such as, VAT on fuel used in transportation, Mandi tax, Duty on electricity used during manufacturing etc.
- The RoDTEP scheme now covers these taxes/duties/levies which are refunded for exported products.
- The rebate is issued as a **transferable electronic scrip** by the **Central Board of Indirect Taxes & Customs** in an end- to-end IT environment.
- Moreover, a monitoring and audit mechanism, with an Information Technology based **Risk Management System (RMS)**, is used to physically verify the records of exporters.
- This scheme is applicable to all the sectors involved in the export of goods irrespective of their turnover. Goods exported through e-commerce platforms can benefit under this scheme. Re-exported products of the country are not eligible.

#### Benefits of RoDTEP

- The scheme helps the country to **comply with WTO norms**, while providing benefits to exporters.
- By covering previously uncovered taxes/duties the **scheme leads to cost competitiveness of exported products** in international markets.
- It also creates **better employment opportunities** in export-oriented manufacturing industries.
- The introduction of the digital platform, helps clearance at a much faster rate and also increases the accuracy of transaction processing.

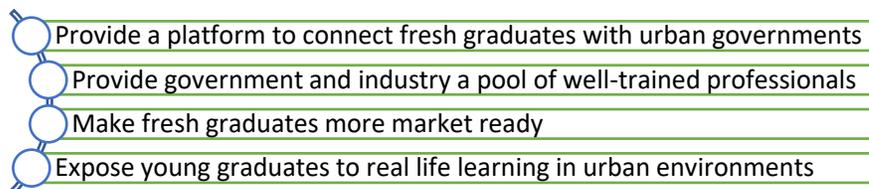
## TULIP Platform

- The government shared the progress of the **The Urban Learning Internship Program (TULIP) platform**.
- Since the launch of TULIP in June 2020, so far more than 25,000 internship opportunities have been advertised; of which more than 5,000 internships have been offered; of which more than 3,500 have been completed
- TULIP is an initiative by the **Ministry of Housing and Urban Affairs (MoHUA)** in collaboration with the **Ministry of Education (MoE)** and All India Council of Technical Education (**AICTE**).
- The platform has been developed to provide internships to students and graduates in Urban Local Bodies (ULBs), smart cities, parastatals of States/UTs, to utilise the skills of freshly graduated students to co-create modern solutions for Indian cities.
- **Eligibility:** The internships under TULIP are open to **Indian citizens** who graduate from an undergraduate program can apply within 18 months from graduating.

## Objective

- Short-term exposure to fresh graduates to enhance their professional development through experiential learning with ULBs and smart cities.
- Harnessing fresh energy and ideas towards ULBs and smart cities efforts to solve critical challenges.

## Goal of TULIP



## Greenwashing

- The RBI Deputy Governor called for a formal definition of green finance to avoid the risk of greenwashing.
- **Green financing** refers to lending to environmentally sustainable economic activities

## Greenwashing

- It refers to misleading the general public into believing that companies, sovereigns or civic administrators are doing more for the environment than they actually are.
- Thus, it refers to **dishonest practices designed to deceive people**. This may involve making a product or policy seem more environmentally friendly or less damaging than it is in reality.
- The phenomenon came into practice as consumers and regulators, due to greater awareness and environmental consciousness, sought to use planet-friendly, recyclable and sustainable green products.
- It is done primarily for a company to either present itself as an environment-friendly entity or for profit maximization.
- Although several companies, cities, states and regions have committed to reaching net-zero, in the absence of regulation, a lot of these pledges are not aligned with the science to achieve the same and do not have enough detail to be credible.

## ODOP Merged with DEH

- The Ministry of Commerce shared that the **One District One Product (ODOP)** initiative has been operationally merged with **Districts as Export Hub (DEH)** initiative

- ODOP was launched by the Ministry of Food Processing Industries, to help districts reach their full potential, foster economic and socio-cultural growth, and create employment opportunities, especially, in rural areas.
- It aims to do this by identifying, promoting and branding a product from one district. It intends to turn every district in India, into an export hub through promotion of the product in which the district specializes.
- The initiative plans to accomplish this by scaling manufacturing, supporting local businesses, finding potential foreign customers.

#### Districts as Exports Hub initiative

- An initiative of the Directorate General of Foreign Trade (DGFT), Department of Commerce, DEH aims to convert each district into an export hub.
- It tries to target export promotion, manufacturing and employment generation at grass root level and has made States and Districts accountable for the export growth from the districts in the country.
- DEAP will include clear identification of products (**goods and services**) with export potential in the District.

#### Objectives of DEH

- Enable MSMEs, farmers and small industries to get benefit of export opportunities in the overseas markets.
- Shift focus on District led Export Growth for self-sufficiency and self-reliance.
- Attract investment in the districts to boost manufacturing and exports.
- Provide ecosystem for innovation/use of technology at district level to make them export competitive.
- Handholding and assistance to exporters by doorstep delivery of timely and relevant information.
- Generate employment in the districts.
- Providing platforms for wide and global reach of products and services from the district through E-commerce and Digital marketing.

Achievements of ODOP	Achievements Related to DEH
<ul style="list-style-type: none"> <li>• The <b>ODOP GeM Bazaar</b> has been launched on the Government e-Marketplace (GeM) with over 200 product categories created on the platform to promote sales and procurement of ODOP products across the country.</li> <li>• ODOP products are showcased in various International forums such as World Economic Forum DAVOS, at International Yoga day in New York etc.</li> <li>• The ODOP initiative has been identified for the prestigious Prime Minister’s Award for Excellence in Public Administration in Holistic Development</li> </ul>	<ul style="list-style-type: none"> <li>• State Export Promotion Committee (SEPC) and District Export Promotion Committee (DEPC) has been constituted in all the 36, States/UTs.</li> <li>• Products/services with export potential have been identified in 734 Districts across the country.</li> <li>• State Export Strategy has been prepared in 28 States/UTs.</li> <li>• Draft District Action Plan has been prepared for 570 Districts.</li> <li>• A web portal to monitor the progress of District Export Action Plan in all the Districts has been developed by DGFT.</li> </ul>

#### Global Employment Scenario

- The International Labour Organisation (ILO) released two reports that gave an indication of the global employment scenario post-pandemic.
- The **first report** is 'Global Wage Report 2022-2023: The Impact of inflation and COVID-19 on wages and purchasing power'

- It discusses the twin crises, inflation and economic slowdown, which created a significant fall in real monthly wages around the globe. The report blames the war in Ukraine and the global energy crisis for this situation.
- The objective of the report is to collect wage data from as many countries and territories (about 190) which are then grouped into five separate regions
- The **second report** is, the '*Asia-Pacific Employment and Social Outlook 2022: Rethinking sectoral strategies for a human-centred future of work*'.
- It stated that the Asia-Pacific region lost about 22 million jobs in 2022. The decrease in wages is placing millions of workers in a dire situation.
- Income inequality and poverty will rise if the purchasing power of the lowest paid is not maintained.

### Key Findings

- The ILO report on wages looked at the real and nominal wages of employees.
  - The nominal wage data shows the adjusted figures after accounting for consumer price inflation.
  - Real wage growth refers to the year-on-year change in real average monthly wages of all employees.
- In India, the nominal wages rose to ₹17,017 per month in 2021 from ₹4,398 in 2006. But when inflation is factored in, the real wage growth in India plunged to **-0.2%** in 2021 from 9.3% in 2006. The negative growth in India started after the pandemic.
- In China, the growth decreased from 5.6% in 2019 to 2% in 2022. In Pakistan, the growth is -3.8%.
- The increasing cost of living has the greatest impact on lower-income earners and their households
- This is because they have to spend most of their disposable income on essential goods and services, which generally experience greater price increases than non-essential items.

### Rising Inequality

- At the Asia-Pacific level, only the jobs in high-skill occupations saw a recovery from the COVID-19 crisis, which is true across all subregions.
- While there is an employment gain of **1.6%** among high-skill workers between 2019 and 2021, there is no such substantial gain among low-to-medium-skill workers.
- Among the G-20 countries, the report noted a significant gap in the average level of real wages between advanced G-20 countries and emerging G-20 countries such as India.
  - It is on the level of about \$4,000 per month in advanced economies and about \$1,800 per month in emerging economies.
- 75 to 95 million people were pushed into extreme poverty during COVID-19

### Recommendations

- There is a need to strengthen labour market institutions and wage policies.
- Creation of decent formal wage employment is necessary for a more equitable distribution of wages and income, and is a key contributor to equitable and sustainable wage growth.
- Governments should focus on gender pay gap as when women leave the labour market, they are less likely to return than men.
- Most importantly, the report says that a **multilateral approach** is the key to solving the crises.
- There is an urgent need to address the negative effects of climate change; increasing inequalities; the poverty, discrimination, violence and exclusion suffered by millions of people.
- This includes discrimination that women and girls continue to suffer in many parts of the world; the lack of vaccines and access to adequate sanitation and essential healthcare for all; and the growing digital divide between poor and wealthier countries.

## National Single Window System

- Five more states and union territories — Haryana, Andaman and Nicobar, Tripura, Jharkhand, and Arunachal Pradesh — joined the National Single Window System (NSWS) by 15 December. So far 16 states/UTs have already been on boarded.
- Invest India, under the guidance of DPIIT, manages the National Single Window System project.
- NSWS can be described as a one-stop platform for businessmen **seeking regulatory approvals and services** related to investments. The platform helps businesses in identifying and applying for required approvals to start or run their businesses.
- The system is aimed at reducing duplicity of information submission to different ministries, reduce compliance burden, cut gestation period of projects, and promote ease of starting and doing business.
- It enables the identification, applying and subsequent tracking of approvals for all integrated states and central departments.
- The system currently accepts applications for 248 **government-to-business** clearance and approvals from 26 central ministries and departments, including states.
- Over 44,000 approvals have been facilitated through NSWS and over 28,000 approvals are currently under process.

## Manthan Platform

- The Manthan platform won NSEIT the **Best Tech Initiative of the Year** at the Dun & Bradstreet Business Excellence Awards 2022.
- The award was presented for building the technology infrastructure to support Manthan, a platform that promotes collaboration at scale between industry and the scientific research and development ecosystem.
- The development of the platform was conceptualized and implemented by the **Office of the Principal Scientific Adviser (PSA)** to the Government of India.
- It empowers multiple stakeholders to collaborate for co-creating solutions aligned with the United Nations' SDGs and the country's national scientific missions.

### NSEIT

- NSEIT Limited is a **global technology enterprise** focused on delivering excellence in a complex digital environment, primarily in the banking, insurance, and capital market ecosystem.
- It is a **100% subsidiary of the National Stock Exchange of India**.
- Its key service pillars are Application Modernization, Business Transformation, Data Analytics, Infrastructure & Cloud Services, Cybersecurity, EdTech, and online examinations solutions.

## First Loss Default Guarantee

- Two months after the RBI issued guidelines on digital lending, banks, non-banking financial companies (NBFCs) and fintech players are still awaiting clarity on many aspects, including the First Loss Default Guarantee (FLDG) system and challenges that banks face while collaborating with fintechs.
- FLDG is a **lending model between a fintech and a regulated entity** in which a third party guarantees to compensate up to a certain percentage of default in a loan portfolio of the regulated entities (RE).
- Under FDLG, the fintech originates a loan and promises to compensate the partners up to a pre-decided percentage in case customers fail to repay.
- FDLG helps to expand the customer base of traditional lenders but relies on the fintech's underwriting capabilities.

- Underwriting is the process through which an individual or institution takes on financial risk for a fee.

### Paris Club

The Paris Club creditor nations have proposed a 10-year moratorium on Sri Lankan debt and another 15 years of debt restructuring as a formula to resolve the current financial crisis in Sri Lanka.

- The Paris Club is an **informal group of creditor nations** whose objective is to **find workable solutions to payment problems faced by debtor nations**.
- Its goal is to **avoid debt crises and resulting international tensions** that have in the past led to conflict and even invasions of debtor countries.
- It has **22 permanent members**, including most of the western European and Scandinavian nations, the United States, the United Kingdom, and Japan.
- In addition to the Paris Club's 22 member nations, there are **observers—often international NGOs**—who attend but cannot participate in the meetings.

### Startups Intellectual Property Protection (SIPP) Scheme

- The government has revised the scheme for facilitating Start-Ups Intellectual Property Protection (SIPP) to upgrade the professional charges of the facilitators. The facilitation fee has been increased by at least 100%.
- The scheme was launched in 2016 to **protect and promote Intellectual Property Rights (IPR)** of Startups and to **encourage innovation and creativity among them**.

### Benefits for Startups

- Startups can avail patent, trademark, and design services by paying them only required statutory fees and professional fees are excluded.
- The government would pay nominal professional fees for the services related to procuring the IPR to the advocates or trademark agents in charge of handling the IPR process.
- Startups can avail an array of services, including general advice, assistance in drafting applications, preparing and filing responses to examination reports, appearing at hearings, contest opposition and ensuring the final disposal of the IPR application.

### Progress in IP Activities

- Patent applications filed by Startups have increased from 179 in 2016-17 to 1500 in 2021-22.
- Trade Mark applications filed by Startups have increased from 4 in 2016-17 to 8649 in 2021-22.

### Trading Platform for Coffee

- A **blockchain-enabled trading platform for coffee** that will help connect growers with roasters and traders directly, ensuring better realisations, is being developed.
- The Coffee Board is facilitating the setting up of the proposed trading platform which will also help address the traceability issue for the buyers.

### Price Discovery

- Coffee growers, curers, traders and exporters can participate and trade online on the trading platform where the price discovery will happen.
- Currently, the **coffee trade is largely unorganised** and is not under the purview of the Agricultural Produce Market Committee (APMC) system.

- Though prices of Indian coffee reflect the broader trend in the New York and London terminals, the curing houses and traders fix the actual farm gate prices depending upon the locations and quality parameters.
- Once the trading platform is operationalised, growers can sell directly from their farm gates or can ship to an empanelled warehouse that will approve the quality parameters and then the trade will take place online.

#### Coffee Board

- The Coffee Board is a statutory organization constituted under the **Coffee Act, 1942** and functions under the administrative control of the **Ministry of Commerce and Industry**.
- The Board is mainly focusing its activities in the areas of research, extension, development, market intelligence, external & internal promotion and welfare measures.

#### Circular Trading

- The issue of circular trading in GST was recently discussed by the Goods and Services Tax (GST) Council.
- Circular trading refers to **fraudulently availing input tax credit by traders by issuing of invoices without an actual supply of goods or services**.
- In simple words, it refers to the transaction of selling and buying of goods (without actual movement of goods) through shell companies.
- Tax experts believe that there is need to provide clarity on the issue of arrests for circular trading.
- The Central Board of Indirect Taxes and Customs (CBIC) has already issued a circular that **circular trading is not a case of tax evasion and so arrests should not be made**. However, detention in these cases continue.

#### Group Buying Model

- Group buying model is a popular trend in China, which has one of the highest e-commerce users in the world.
- Group buying or community group buying (CGB) model is referred to as another form of e-commerce where the minimum number of consumers buy goods and services at reduced prices.
- Also known as **collective buying**, the concept of group buying works like cooperatives, where a large number of people buy from a merchant.
- It utilises the power of buying in bulk so that both the consumer and the vendor benefits from the transaction.
- The group-buying site, after negotiating directly with merchants, selects and advertises an offer for a day to its subscribers — typically a hotel stay, a restaurant booking, at an attractive, one-off price. The deal is only available for a short time, often just one day.
- Consumers can avail discounted prices on their purchases while merchants reduce last-mile delivery costs and sell products in a single transaction.
- DealShare is known for pioneering the CGB model in India. It also allows a coalition of people, often living in one residential block, to obtain discounts by purchasing groceries and other daily essentials in bulk.
- The practice is usually organised by a community leader such as a local administrator or even a convenience store owner.

#### Youth Co: Lab Launched

- The 5th edition of Youth Co: Lab India, **Asia Pacific's largest youth innovation movement** was jointly launched by Atal Innovation Mission (AIM), NITI Aayog, UNDP India, and Citi Foundation.

- Youth Co: Lab was co-created in **2017** by **United Nations Development Programme and the Citi Foundation**.
- It is a multi-dimensional and multi-level response to tackle the challenges young people face by positioning youth for finding solutions to global challenges tackling Sustainable Development Goals (SDGs).
- It aims to establish a common agenda for Asia-Pacific countries to invest in and empower youth to accelerate the implementation of the SDGs through leadership, social innovation, and entrepreneurship.
- Till now, it has been implemented in 28 countries and territories, reaching over 200,000 participants, benefitting more than 11,000 young social entrepreneurs, and supporting over 1,240 social enterprises.

#### **Atal Innovation Mission (AIM)**

- AIM is the Union Government's attempt to promote a culture of innovation and entrepreneurship.
- Its objective is to serve as a platform for the promotion of world-class innovation hubs, grand challenges, start-up businesses, and other self-employment activities, particularly in technology-driven areas.

## J&K Delimitation Commission

Oposing a plea challenging the constitution of Delimitation Commission to readjust constituencies in Jammu and Kashmir, the Centre reaffirmed that the **J&K Reorganization Act, 2019** mandates the Commission to do it.

### Delimitation Commission

- It is a commission established under the provisions of the **Delimitation Commission Act** which is tasked for redrawing the boundaries of the various assembly and Lok Sabha constituencies based on a recent census.
- It is appointed by the **President** and is composed of a retired Supreme Court judge, Chief Election Commissioner and Respective State Election Commissioners.
- First delimitation exercise was carried out by the President in 1950-51.
- Delimitation Commissions had been set up four times in 1952, 1963, 1973 and 2002 under the Acts of 1952, 1962, 1972 and 2002.
- No delimitation exercise was conducted after the 1981 and 1991 Censuses.
- Its orders **cannot be called in question before any court**.
- These orders come into force on a date to be specified by the President of India on this behalf.
- The copies of its orders are laid before the House of the People and the State Legislative Assembly concerned, but no modifications are permissible therein by them

### J&K Delimitation Commission

- It was set up in March, 2020 and is headed by retired Supreme Court Justice **Ranjana Prakash Desai**, with the Chief Election Commissioner and J&K's Chief Electoral Officer as members, and J&K's five MPs as associate members nominated by the Hon'ble Speaker of Lok Sabha.
- It was entrusted with the work of delimiting the Assembly and Parliamentary Constituencies in the UT of Jammu and Kashmir based on 2011 Census and in accordance with the provisions of the **Jammu and Kashmir Reorganization Act, 2019** and **Delimitation Act, 2002**.

### Background

- The erstwhile J&K state had 111 seats:

Kashmir - 46

Jammu - 37

Ladakh - 4

Pakistan-occupied  
Kashmir - 24 reserved

- After carving out Ladakh as a Union Territory, J&K was left with 107 seats, including 24 for PoK.
- The Reorganization Act increased these seats to **114** (90 for Jammu & Kashmir, besides the 24 reserved for PoK). This led to the demand for delimitation exercise.

### Suggested Changes

**Legislative Assembly:** The Commission has increased **7 Assembly seats** — six in Jammu (now 43 seats) and one in Kashmir (now 47).

- 9ACs have been reserved for STs, out of which, 6 is in Jammu region and 3 ACs in the Valley.
- The names of some ACs have also been changed keeping in view the demand of local representatives.
- For the first time, 9 ACs for STs and 7 for SCs have been reserved whereas the Constitution of erstwhile Jammu and Kashmir State did not provide for reservation of seats for the Scheduled Tribes in the Legislative Assembly.

- It recommended at least 2 members from the community of Kashmiri Migrants (Kashmiri Hindus) in the Legislative Assembly.
- It also recommended representation of *displaced persons from Pakistan-occupied Kashmir*, who migrated to Jammu after Partition in the J&K Legislative Assembly.

**Lok Sabha:** There are five Parliamentary Constituencies in the region. It redrew the boundaries of Anantnag and Jammu seats.

- Also, a Shia-dominated region of Srinagar parliamentary constituency has been transferred to Baramulla constituency.

### Significance of Changes

- Of the six new seats in Jammu, four have a predominantly Hindu population. Of the two new seats in Chenab region, Muslims are a minority.
- Reservation of seats for Kashmiri Pandits and displaced persons from PoK can be helpful during the elections. It was not specified whether the seats for Kashmiri Pandits should be reserved from among the existing seats, or whether they will be given additional seats.
- The restructuring of Anantnag and Jammu will change the influence of various demographic groups as it has highest ST population. Opposition parties anticipate that the parliamentary seat, too, would be reserved for ST and see it as reducing the influence of ethnic Kashmiri-speaking Muslim voters.
- Parties in the Valley expect that Baramulla's restructuring will consolidate the Shia votes.

### Why Was It Challenged?

- Several people are opposing it due to following reasons:
  - Constituency boundaries are being redrawn only in J&K whereas delimitation for the rest of the country has been frozen until 2026.
  - The Delimitation Commission is mandated by the J&K Reorganization Act, which is sub judice.
  - The Commission is taking into consideration size, remoteness and closeness to the border along with the basis of Census population. This is another reason for opposition.
- **Petitioners' Arguments**
  - They termed the process of delimitation being carried out in J&K based on the 2011 census unconstitutional as no population census operation was carried out in 2011 for the UT of J&K.
  - They argued that the increase in number of seats to be ultra vires Articles 81, 82, 170, 330 and 332 of the Constitution and Section 63 of the Jammu and Kashmir Reorganization Act, 2019.
  - They emphasized that the change not being proportionate with the respective population is violative of Section 39 of the UT Act.
    - **Article 81:** It established the composition of Lok Sabha.
    - **Article 82:** It states that the seats in Lok Sabha and the division of each State into territorial constituencies will be readjusted after each census.
    - **Article 170:** It deals with the composition of legislative assemblies.
    - **Article 330:** Provides for reservation of seats for Scheduled Castes and Scheduled Tribes in Lok Sabha.
    - **Article 332:** Provides for the reservation of seats for Scheduled Castes and Scheduled Tribes in Legislative Assemblies.
    - **Section 63 of J&K Reorganization Act, 2019:** It states that until the first census after the year 2026 is published, it won't be necessary to readjust the division of J&K UT into Assembly and Parliamentary Constituencies.

- **Section 39 of UT Act:** For elections to the Legislative Assembly, the Union territory shall be divided into single-member assembly constituencies so that the population of each of the constituencies shall be the same throughout the Union territory.

**VERDICT RESERVED**  
The top court reserved its verdict on a plea challenging Centre's decision to constitute a delimitation commission

**WHAT THE GOVT TOLD THE APEX COURT**

**WHY THE EXERCISE COULDN'T WAIT**  
The delimitation exercise could not wait till 2026 since the idea was to give immediate democracy, the govt told the Supreme Court

“The last delimitation had taken place in 1995. We don't want to point out what went wrong at that time... But the government's idea was to give immediate democracy to J&K. To wait till 2026 was legislatively found to be unwise.”

**WHY IT WAS NOT DONE BY EC**  
Centre said under the 2019 J&K Reorganisation Act, read with 2002 Delimitation Act, the first delimitation is to be done by a delimitation panel

“The intention is that first delimitation is not by the Election Commission which is busy holding elections throughout the country. The first delimitation is to be done by the delimitation commission and then it can be done by EC.”

## National Party

AAP became the national party after Gujarat elections.

### What is a National Party

- They are usually bigger parties and are recognized by the Election Commission of India based on their poll performance.
- Other parties are simply registered-unrecognized parties and can get the status of national or state parties with time.
- India had total of eight national parties— BJP, Congress, All Indian Trinamool Congress (AITMC), Bahujan Samaj Party (BSP), Communist Party of India (CPI), Communist Party of India (Marxist), Nationalist Congress Party (NCP), and the National People's Party (NPP). AAP becomes the ninth party now.

### How Did AAP Achieve This Status

AAP has zero Lok Sabha MPs, but it has governments in Delhi and Punjab with huge mandates. It meets the six per cent votes/two seats requirement in Goa and has become a state party in Gujarat thus fulfilling the state party criteria required for being recognized as a national party.

### Benefits

- Party's election symbol (broom in case of AAP) remains unchanged across country.
- Get broadcast and telecast bands on Akashvani and Doordarshan during general elections.
- Allowed to have a maximum of **40-star campaigners** whose travel expenses are not counted in the accounts of candidates.
- Government land for building party headquarters.
- Only one proposer needed to file a nomination.
- Get two sets of electoral rolls free of cost at the time of revision of rolls.
- Get one copy of the electoral roll free of cost during general elections.

### Eligibility Criteria

National Party	Regional Party
<ul style="list-style-type: none"> <li>• If a party is recognized as a state party in four or more states.</li> <li>• If its candidates polled at least 6% of total valid votes in any four or more states in the last Lok Sabha or Assembly elections and has at least four MPs in the last Lok Sabha polls.</li> <li>• If it has won at least 2% of the total seats in the Lok Sabha from not less than three states.</li> </ul>	<ul style="list-style-type: none"> <li>• At least 6% vote-share in the last Assembly election and have at least 2 MLAs; or have 6% vote-share in the last Lok Sabha elections from that state and at least one MP from that state; or</li> <li>• At least 3% of the total number of seats or three seats, whichever is more, in the last Assembly elections; or</li> <li>• At least one MP for every 25 members or any fraction allotted to the state in the Lok Sabha; or</li> <li>• Have at least 8% of the total valid votes in the last Assembly election or Lok Sabha election from the state.</li> </ul>

## Family Pehchan Patra for J&K Residents

A Family Pehchan Patra (identity card) will be introduced for residents of Jammu & Kashmir.

### Objectives

- To ensure speedy and transparent doorstep delivery of welfare schemes.
- To identify and weed out duplicate ration cards and Aadhaar.
- To help the government identify families with unemployed educated youth.
- To allow easy, continuous and automatic updation about information related to birth, death, marriage etc & will result in better utilization of resources.
- To help the government plan policy based on authentic, updated population data.



### About Pehchan Patra

- It will be a unique **eight-digit alphanumeric number** identity card.
- It will be used to identify *each family and its members* through the head of the family and will contain their details including their *names, ages, qualifications, employment status, etc.*
- It will be **linked with Aadhaar and the bank account number** of the head of the family.
- It will act as a **single identifier** for every family and individual in the UT *instantly confirming their eligibility for government welfare schemes and facilitating direct benefit transfer to their bank accounts with minimum human interference.*

### Will It Be Mandatory?

- No, the database will be created only with the consent of the family.
- But the families not availing the facility could face practical difficulties as benefits such as subsidized rations through the targeted public distribution system under the National Food Security Act, free medical treatment, old age/ widow pensions, help to victims of militancy, family pensions in case of death of sole earning member of a family, scholarships, etc. will be linked with the family ID card.

#### Arguments Against

Protection of Personal data will be a challenge.

It is emblematic of the widening trust deficit post bifurcation in 2019.

It is being viewed as another surveillance tactic on Kashmiri lives.

It is being seen as a wastage of time and resources and completely unnecessary as Aadhar already exists.

### Similar Initiatives

- Haryana was the first state to introduce this concept.
- Punjab introduced it last year for direct transfer of benefits to families who are eligible for various social service schemes of the government.
- **Jan Aadhaar scheme** by Rajasthan aims to be the single identifier of a family & an individual and provides doorstep delivery of all kinds of cash as well non-cash benefits & services to residents.
- Uttar Pradesh government has decided to launch a **UP Parivar Kalyan Card** for similar purposes.

## Kerala University Laws (Amendment) Bills

The Kerala Government passed two **University Laws (Amendment) Bills** in the state assembly to amend the governance of State Universities and remove the Governor as its chancellor.

### About The Bill

- The proposed legislation will amend the statutes of several universities established by legislative Acts in Kerala
- It empowers the Government to appoint an academician of high repute or a person of eminence in any of the field of science including agriculture and veterinary science, technology, medicine, social science, humanities, literature, art, culture, law, or public administration as the Chancellor of the University.

- The Chancellor so appointed shall have a term of 5 years and is eligible for re-appointment for one or more terms.
- The Government will also have the power to remove the Chancellor on charges of grave misconduct or any other good and sufficient reasons.
- The chancellor may resign from his office by an intimation in writing

#### Background

- ▶ The governor and the state government have been at loggerheads for months.
- ▶ It reached a simmering point when the Governor accused vice-chancellor of Kannur University of plotting against him at the 2019 Indian History Congress.
- ▶ The cold war took a worse turn after the Governor denied assent to the Controversial Lok Ayukta (Amendment) Bill and University Laws (Amendment Bill) passed earlier by the state Assembly.
- ▶ This fallout led to the Governor claiming that he has the power to dismiss the ministers. The relation worsened more after the Supreme Court invalidated the Kerala Technological University VC's appointment.
- ▶ Following this judgement, the Governor demanded the resignation of 11 other VCs from different universities.
- ▶ Thus, the state government proposed a bill to remove the governor from the post of chancellor.

#### Can A Governor Be Removed As A Chancellor?

- The Kerala Government has stated that the Constitution does not envisage the role of Chancellorship for the Governor and the role of **ex-officio Chancellor of State Universities** was entrusted to him by the State Legislative Assembly.
- As a Chancellor, the Governor **acts independently** of the Council of Ministers and takes his own decisions on all University matters.
- The Punchhi Commission on Centre-State Relations had also recommended that the Governor should not be “burdened with positions and powers, which may expose the office to controversies or public criticism”.

#### Arguments Against The Bill

- The bill will give the state government more leeway in appointing its own nominees as VCs.
- It will give more power to the state government.
- Opposition fears that the state government will make the universities their own territory taking away the autonomy universities enjoy.

#### Similar Instances

##### 1. West Bengal:

- a. The House passed The West Bengal University Laws (Amendment) Bill, 2022, to appoint the CM, in place of the governor, as the chancellor of all state-run universities.
- b. It recommended the chancellor to appoint a distinguished academic as the vice-chancellor of the university out of a panel of three names recommended by a committee constituted by the state government.
- c. But the Bill was returned by the Governor on the ground of “incompleteness of compliance”.

2. **Tamil Nadu:** The Tamil Nadu Legislative Assembly passed two Bills, to transfer the power of appointing the Vice-Chancellor in public universities from the Governor to the state government. But these Bills didn't receive the Governor's assent.

##### 3. Maharashtra:

- a. Maharashtra government amended the process to appoint the Vice Chancellor of state public universities. The amendment took away the power of the Governor to appoint the vice-chancellors and allowed him to only approve the names recommended by the state government.
- b. But later, the new government withdrew this bill.

#### Pradhan Mantri National Apprenticeship Mela

The Ministry of Skill Development and Entrepreneurship (MSDE) held the Pradhan Mantri National Apprenticeship Mela (PMNAM) across 197 locations in 25 states and Union Territories.

**Objective:** To encourage companies to hire more apprentices while assisting employers in discovering the right talent and developing their potential via training and practical experience.

**Eligibility:** Candidates who have passed Class 5 to Class 12 and have skill training certificates, or ITI Diploma holders or graduates.

**Need:** India has often been compared to other developed economies in terms of apprenticeship opportunities for the youth. To bridge this gap, the government is coming up with several programmes under the Skill Development Programme to skill the youth and apprenticeship is considered the most sustainable model of skill development. The government is trying make apprenticeship opportunities reachable to trainees and students through PMNAM.

### Key Points

- Under **National Skill Development Mission (NSDM)**, these melas are hosted in the country every month, wherein selected individuals receive a **monthly stipend** in accordance with **government criteria for gaining new skills**.
- The event witnessed the participation of various companies from different sectors. They had the chance to meet potential apprentices on a single platform and chose applicants on the spot.
- Interested individuals registered for mela by visiting <https://www.apprenticeshipindia.gov.in/>
- The fair gave the candidates National Council for Vocational Education and Training (NCVET)-recognized certifications, improving their employability rate after the training session.
- The government aimed to raise apprenticeship opportunities in India to 10 lakhs by end of 2022, and to 60 lakhs by 2026.

**About Skill India Mission**

- It was launched in 2015 by the Ministry of Skill Development and Entrepreneurship.
- It was launched with the aim to provide a strong institutional framework to implement and scale up skill development efforts across the country and to impart training to one crore youth every year.
- Under this mission, the Ministry of Skill Development and Entrepreneurship imparts employable skills to the youth through long term and short-term training.



**Various initiatives under this scheme include:**

- **Pradhan Mantri Kaushal Vikas Yojana (PMKVY):** Launched with the aim to train the country's youth and continue the journey of Skill India Mission in building India as the skill capital of the world.
- **Jan Shikshan Sansthan (JSS) Scheme:** Launched to impart vocational skills in non-formal mode to non-literates, neo-literates, persons with rudimentary level of education up to 8th and school dropouts up to 12th standard in the age group of 15-45 years.
- **National Apprenticeship Promotion Scheme (NAPS):** Launched for promoting apprenticeship training and increasing the engagement of apprentices by providing financial support to industrial establishments undertaking apprenticeship program under The Apprentices Act, 1961.
- **Industrial Training Institutes (ITIs)/ Craftsmen Training Scheme (CTS):** Launched for providing long-term training through 14,716 Industrial Training Institutes (ITIs) operational across the country.

### Ad-Hoc Judges In HCs

The supreme court, while hearing a plea filed by NGO Lok Prahari seeking invocation of **Article 224A** for appointment of *ad hoc judges in High Courts* suggested that the process of appointing ad-hoc judges should be simplified.

### Who is An Ad-hoc Judge

They are the ones appointed by a special procedure for a limited period to deal with long pendency of cases.

### Related Constitutional Provision

- **HCs: Article 224A** states that if the President thinks that the number of the Judges of a Court should be increased for the time being due to reasons like temporary increase in the business of High Court or shortage of judges, the President may appoint duly qualified persons to be additional Judges of the Court for a period not exceeding two years.

- **SC: Article 127** empowers the Chief Justice of India with the **previous consent** of the President and after consultation with the Chief Justice of the High Court concerned to appoint a High Court Judge duly qualified for appointment as a Judge of the Supreme Court as an ad hoc judge if there is shortage of judges in the SC.
  - According to Article 127, the appointed ad-hoc judge will have all the jurisdiction, duties, powers and privileges of a Judge of the Supreme Court.

#### **When Are HC Ad-hoc judges appointed?**

- The number of vacancies is more than 20% of the sanctioned strength.
- Cases in a particular class have been pending for over **five years**.
- More than 10 % of pending cases are over five years old.
  - **Reasons for Pendency:**
    - Delay in appointing the judges due to issues between government and collegium.
    - Less number of judges to deal with the cases.
    - Practice of seeking adjournments in the lower courts.
- The percentage of the rate of disposal is beneath the institution of the cases either in a particular subject matter or in the court.
- Even if the number of old cases is low, it is likely there will be a situation of mounting arrears due to a consistently low case clearance rate for a year or more.

#### **Procedure of Appointment**

- The Chief Justice of the High Court, after obtaining the consent of the person concerned, recommends to the CM of the state concerned the name of the retired Judge and the period for which he or she will be required to sit and act as a High Court Judge.
  - Pre-Recommendation Process:
    - The Chief Justice of HC sets up a panel of Judges (in the stage of retirement) and former High Court Judges (who have retired recently preferably within a period of one year) to select the candidate.
    - The judges are chosen based on their expertise in a particular field of dispute.
    - The Chief Justice of HC then investigates the previous performance of recommended retired Judges in the standard & quantum of disposal of cases.
    - Based on this, he forwards the name to the CM.
- The Chief Minister then forwards his recommendation to the Union Minister of Law and Justice after consultation with the Governor of the state.
- The Minister of Justice of the Union Government then contacts the Chief Justice of India.
- After receiving the advice of Chief Justice of India, the Prime Minister advises the President about the person to be appointed as Ad-Hoc Judge of the High Court.
- Once the President approves the appointment, the Secretary of State of India to the Ministry of Justice will notify the Chief Justice of that High Court.
- The Chief Minister of State then issues the required notice in the Indian Gazette.

**Period to Complete the Appointment:** A period of three months is required to complete this process.

**Number of Judges:** Depending on the strength of the high court, the number of judges to be appointed can range between 2-5.

#### **Supreme Court Recommendations**

- The SC suggested that the procedure of appointing ad-hoc judges should be made less complicated.

- It recommended out-of-the-box thinking and appointing senior lawyers of high courts as ad-hoc judges to tackle the issue of rising pendency in cases.
- It suggested the government complete the appointment procedure in a matter of days and not stretch it for long.

### EXTRA MILE

The Chief Justice of India announced that there will be **no vacation bench** during the court's annual winter vacation.

#### About the Court Vacations

- The Supreme Court works for 193 days (about 6 and a half months) a year, the High Court's function for approximately 210 days (about 7 months), and trial courts for 245 days (about 8 months). The remaining days are court vacations.
- The Supreme Court enjoys its annual summer vacation of seven weeks starting at the end of May and extending till July.
- It takes a week-long break each for Dussehra and Diwali and two weeks at the end of December.
- All this time when the court is not functioning is termed as court vacations.

#### Vacation Benches

- The combination of 2-3 judges to hear urgent cases during court vacations is called vacation bench.
- Cases such as bail, eviction, etc. find precedence in listing before Vacation Benches.
- A five-judge Vacation Bench of the Supreme Court in 2015 heard the petition challenging the constitutional amendment setting up the National Judicial Appointments Commission (NJAC) during the summer vacation.
- This year there won't be any vacation bench to hear urgent plea's. In this scenario, a senior Supreme Court Registry official will be specially deputed as a 'Vacation Officer'. He could be approached by any advocate seeking urgent relief either on court holidays or during after-court hours.

Arguments in Favour	Arguments Against
Lawyers have argued that vacations are much needed for rejuvenation as their profession demands intellectual rigour and long working hours.	Vacation means unavoidable delays in listing cases.
Judges do not take leave of absence like other working professionals when the court is in session, thus they require vacations.	Results in slow pace of judicial proceedings.
The issue of pendency relates largely to legacy cases that need to be tackled systemically.	Vacations lead to mounting pendency of cases.
Judges use vacations to write judgements, they can't be made to work round the clock and expected to deliver high-quality judgments.	Vacations are inconvenient for justice seekers.

#### Practice in Other Countries

- US: The US Supreme Court hears approximately 100-150 cases a year and sits for oral arguments for five days a month. Arguments are heard during the first two weeks from October to December and arguments are heard in the last two weeks from January through April.
- UK: High Courts and Courts of Appeals sit for 185-190 days (about 6 months) in a year. The Supreme Court sits in four sessions throughout the year spanning roughly 250 days (about 8 months).

## Appropriation Bill

Opposition slammed the appropriation bill moved by Finance Minister Nirmala Sitharaman in Rajya Sabha aimed at authorizing payment and appropriation of additional spending of Rs 3.25-lakh crore from the Consolidated Fund of India for the current financial year (2022-23).

### What is an Appropriation Bill?

It is a bill that authorizes the government to withdraw funds from the Consolidated Fund of India for use during a financial year.

### Meaning of Appropriation for the Government

Appropriation is when some money is set aside for a specific purpose. A government appropriates funds to delegate cash for its operations.

### Related Constitutional Provision

Article 114 allows the government to introduce a Bill in the parliament to withdraw money out of the Consolidated Fund of India required to meet the:

- demand for grants made by the House of the People.
- expenditure charged on Consolidated Fund of India but not exceeding the amount shown in last statement.

### Procedure Followed

- Once the demands for grants have been passed by the House, a Bill called appropriation bill to provide for the appropriation out of the Consolidated Fund of India is introduced, considered and passed.
  - ✓ Demand for Grants is the form in which **estimates of expenditure** from the Consolidated Fund, included in the annual financial statement and required to be **voted upon** in the Lok Sabha, are submitted under **Article 113** of the Constitution.
- The introduction of such a Bill cannot be opposed.
- The scope of discussion is limited to matters of public importance or administrative policy implied in the grants covered by Bill and which have not already been raised during the discussion on demand for grants.
- The members desiring to participate in the discussion need to give advance intimation of the specific points they intend to raise to the Speaker.
- Such advance intimation must be given 1000 hours (about 1 and a half months) before the day the Appropriation Bill is to be taken into consideration.
- The Speaker may withhold permission for raising points which appear to be repetition of the matters discussed on a demand for grants.
- Once it is passed by the Lok Sabha, it is sent to the Rajya Sabha.
  - ✓ If the bill fails to get passed in LS, it leads to the resignation of the government.
- After getting cleared from both the houses, the bill is sent to the President.
- After receiving the President's assent, this bill becomes the Appropriation Act. This act authorizes payments from the Consolidated Fund of India.
- The government cannot withdraw money from Consolidated Fund of India till the enactment of this bill.

**Key Features:** The exclusive feature of the Appropriation Bill is its automatic repeal clause, whereby the Act gets repealed by itself after it meets its statutory purpose.

### Amendments

- No amendment can be proposed to an Appropriation Bill which will have the effect of varying the amount or altering the destination of any grant or of varying the amount of any expenditure charged on the Consolidated Fund of India.

- The decision of the Speaker as to whether such an amendment is admissible or not is final.
- An amendment to an Appropriation Bill for omission of a demand voted by the House is out of order.

### Power of Rajya Sabha over Appropriation Bill

Rajya Sabha has the power to recommend any amendments in this Bill, but it is the prerogative of Lok Sabha to either accept or reject these recommendations.

Appropriation Bill	Finance Bill
It is a Money Bill under article 114 that authorizes the government to withdraw funds from the Consolidated Fund of India to meet the expenses in a financial year.	It is a Money Bill under Article 110 introduced in Parliament every year to give effect to the financial proposals made by the government for the upcoming financial year.
Deals with the expense side of the Budget.	Deals with income (taxes and levies) side of the Budget.
No amendments can be made to it.	Amendments can be made to the amount specified.

### Vote on Account

- The process of passing the appropriation bill takes time and usually goes on till April end.
- Till this time the government needs money to carry on its normal activities after the financial year ends.
- To overcome this functional difficulty, the Lok Sabha can make any grant in advance in respect to the estimated expenditure for a part of the financial year, pending the completion of voting for grants and enactment of appropriation bill. It is called vote on account.
- It is passed after budget discussion is over and is granted for **two months** for an amount equivalent to one sixth of the total estimation.

### Eastern Zonal Council

The 25<sup>th</sup> meeting of Eastern Zonal Council was held in Kolkata and was presided over by Union Home and Cooperation Minister Amit Shah.

#### Key Points

- More than 1,000 issues have been discussed in the meetings of the Zonal Councils and 93% of them were resolved in the last eight years.
- There has been a significant increase in the frequency of meetings of the Zonal Council because of the cooperation of all the State Governments, Central Ministries and Departments.
- He urged the Chief Ministers to ensure the creation of a district-level structure of the Narco Coordination Centre (NCORD) mechanism and its regular meetings for the prevention of narcotics.
  - ✓ NCORD is a mechanism for effective coordination among all the drug enforcement agencies and other stakeholders and to provide a common platform for discussion on drug-trafficking-related issues.
  - ✓ He emphasized on the need to accelerate the campaign against drugs with the help of Artificial Intelligence.

### About Zonal Councils

- The idea of Zonal Councils was mooted by the first Prime Minister of India, Pandit Jawahar Lal Nehru in 1956 because of re-organization of the States on linguistic pattern were threatening the nation.
- Zonal Councils are the **statutory bodies**. They are established by an Act of the Parliament, that is, States Reorganisation Act of 1956.



- The Northern Zonal Council:** Comprising of Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, National Capital Territory of Delhi and Union Territory of Chandigarh.
- The Central Zonal Council:** Comprising of Chhattisgarh, Uttarakhand, Uttar Pradesh and Madhya Pradesh.
- The Eastern Zonal Council:** Comprising of Bihar, Jharkhand, Orissa, Sikkim and West Bengal.
- The Western Zonal Council:** Comprising of Goa, Gujarat, Maharashtra and the Union Territories of Daman & Diu and Dadra & Nagar Haveli.
- The Southern Zonal Council:** Comprising of Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and the Union Territory of Puducherry.

**North-eastern Council:** It was set up under the **Northeastern Council Act, 1971** and came into being in 1972 to solve the special problems of northeastern states and consists of Assam, Arunachal Pradesh, Manipur, Tripura, Mizoram, Meghalaya Sikkim and Nagaland.

✓ The State of Sikkim has also been included in the North Eastern Council vide North Eastern Council (Amendment) Act, 2002 notified in 2002.

### Objectives

- National integration.
- Arresting the growth of acute State consciousness, regionalism, linguism and particularistic tendencies.
- Enabling the **Centre and the States** to co-operate and exchange ideas and experiences.
- Establishing a climate of **co-operation amongst the States** for successful and speedy execution of development projects.
- Fostering balanced socio-economic development of the respective zones

**Functions:** They discuss and make recommendations about any matter:

- Of common interest in the field of economic and social planning.
- Concerning border disputes, linguistic minorities or inter-State transport.
- Related to the re-organization of the States under the State's Reorganization Act.

**Structure:** They consist of-

- **Chairman** - Union Home Minister.
- **Vice Chairman** - The Chief Ministers of the States included in each zone act as Vice-Chairman of the Zonal Council for that zone by rotation, each holding office for a period of one year at a time.
- **Members**- Chief Minister and two other Ministers as nominated by the Governor from each of the States and two members from Union Territories included in the zone.
- **Advisers**- One person nominated by the NITI Aayog for each of the Zonal Councils, Chief Secretaries and another officer/Development Commissioner nominated by each of the States included in the Zone.

### Standing Committees

- Each Zonal Council has a Standing Committee consisting of Chief Secretaries of the member States of their respective Zonal Councils.
- They meet from time to time to resolve the issues or to do necessary groundwork for further meetings of the Zonal Councils.

### How Zonal Council Is Different From Other Platforms Promoting Cooperative Federalism

- There are a large number of other platforms which works on the principle of promoting cooperative federalism. E.g. Inter State Council, Governor's/Chief Minister's Conferences and other periodical high-level conferences.
- However, the Zonal Councils are different, both in content and character.
- They are **regional fora** of cooperative endeavour for States linked with each other economically, politically and culturally.
- Being compact high-level bodies, specially meant for looking after the interests of respective zones, they are capable of focusing attention on specific issues taking into account **regional factors**, while keeping the national perspective in view.

# INTERNATIONAL RELATIONS

## US Space Force Establishes First Foreign Command In South Korea

- The US military formally launched a space force unit in South Korea, a move that will enable Washington to better monitor its rivals North Korea, China and Russia.
  - South Korea was chosen as the first foreign unit due to growing concern over North Korea, which has launched a record number of ballistic missiles in 2022.
- The facility is the first of its kind outside American soil since the creation of the US Space Force in 2019.

### Background

- In December 2019, the then President Donald Trump officially created the **US Space Force**.
- It was created to protect US assets in space - especially satellites used for civilian and military navigation, intelligence and communication.
  - A previous Pentagon report said China and Russia had embarked on major efforts to develop technologies that could allow them to disrupt or destroy American and allied satellites in a crisis or conflict.

### Space Security

- Space security deals with the abilities of a country to protect its assets in space - such as the hundreds of satellites used for communication and surveillance.
- The space landscape is changing rapidly. Terrestrial politics is casting its shadow on outer space.
- Hence, relevance of space to national security and conventional military operations is increasing day by day.

### Need For Space Security

#### • Competition in Outer Space

- Several recent trends are impacting the security and sustainability of outer space activities. These include:

- massive growth in the number and diversity of actors operating in outer space, including governments and the private sector
- proliferation of hazardous space debris
- increasing dependence on outer space in the civilian, government and military sectors

#### • Protection of Space Assets

- There exists a possibility of intentional tampering with such assets and the associated ground setup, either by state or non-state actors.
- While there are no specifically deployed weapons in space yet, there are satellites that could be manoeuvred to act as weapons to disable or destroy the space assets of others.
- The threat to space assets is directly proportional to degree of nation's dependence on the assets.
  - Higher the dependence the greater will be threat and the vulnerability.

#### • Countries developing counter-space capabilities

- The first **successful** Chinese anti-satellite (ASAT) test took place in January 2007.
- China's launch of a rocket from a ship is evidence of growing sophistication of the Chinese military space capabilities.
- In December 2019, US president announced the creation of US Space force.

## Counter-Space Capabilities Of India

- So far, India's approach to outer space can be described as purely civilian. India has been developing its space capabilities for peaceful purposes.
  - It should be noted that, India **does not have a declared Space Security Policy**.
- However, due to changing landscape, in an effort to deny an adversary advantages, India also started to develop its counter-space capabilities.

## Steps Taken By Indian Government

- India's first dedicated military satellite was launched only in 2013.
- Under the **Mission Shakti**, in March 2019, India shot down a live Low-Earth Orbit (LEO) satellite in space thereby showing its deterrence capability in space.
  - This was the first Indian demonstration of anti-satellite (ASAT) capability.
  - With this feat, India became the 4th country in the world to have this capability. The other three countries are U.S, Russia and China.
- The establishment of the new tri-service Defence Space Agency (DSA), based in Bangalore, is an important institutional initiative.
- To promote R&D in this field, government gave its approval for setting up of a new agency called the **Defence Space Research Agency (DSRA)**.
- India conducted war game IndSpaceX to gain a better understanding of the current and emerging challenges in the space security domain.

## Anti-Hijab Protests In Iran

Iran has scrapped its morality police after more than two months of protests triggered by the death of Mahsa Amini following her arrest for allegedly violating the country's strict female dress code.

### Background

- In mid-September 2022, Iran's so-called morality police arrested 22-year-old Jina Mahsa Amini in Tehran for wearing what they deemed inappropriate clothing.
- They then took her to a police station, where she slipped into a coma. Three days later, she died in hospital.
- Amini's death sparked widespread anger, leading to anti-government rallies and protests against the mandatory rule of wearing Hijab.

### Criticism

- Over the years, the strictness with which the morality rules have been enforced has increased which has affected personal freedoms and dignity of individuals.
- There are no clear guidelines or details on what types of clothing qualify as inappropriate. This leaves a lot of room for interpretation leading to arbitrary detention of women.

#### The morality police of Iran

- "Gasht-e-Ershad," which translates as guidance patrols, is widely known as the morality police.
- It is a unit of Iran's police force established under former hardline President Mahmoud Ahmadinejad.
- It is supervised by Supreme Leader Ayatollah Ali Khamenei. However, the elected government has a say in their activities through the Interior Ministry.
- Both men and women officials are part of the morality police.

#### Origin of morality police

- The origin of morality police lies in the contested hijab as Iran has a long history of policing the hijab.
  - During the reign of Reza Shah Pahlavi in 1936, the hijab was actually banned in an effort to "modernise" the country.
  - The police would then remove the hijab from the heads of women seen wearing it in public.
- Wearing the hijab became mandatory in Iran in 1983. A force was constituted to enforce the rules on morality and the public appearance of women only in the 1990s.
  - This was created after the war broke out with Saddam Hussein's Iraq and the regime felt the need to centralise its power and underline an Iranian national identity.



- A major part of Iran's social regulations are based on the state's interpretation of Islamic Sharia law, which requires both men and women to dress modestly.
- However, in practice, the "morality police" have in the past primarily targeted women.

### India's Response

- **India chose not to react on this issue in any manner.** India has termed these incidents as an internal issue of Iran.
  - One of the key components of India's foreign policy in non-interference in the internal affairs of the countries.
- In November 2022, India abstained from voting on a UNHCR council on forming a fact-finding committee to prove the various human rights violations.
  - The council alleged human rights violations during Iran protests following the death of 22-year-old Mahsa Amini in police custody.

### Reasons behind India's response

- India and Iran have traditional ties and each government has worked to improve this relationship further.
  - India's ties with Iran are part of its commitment to non-alignment, and balance India's strong relations with Iran's enemies US, Saudi Arabia and Israel.
- New Delhi would not like to open flanks with Iran, which doesn't criticize India on the international stage.
  - Indian government has been particularly sensitive over criticism for the hijab ban in colleges in certain states like Karnataka.
- At present **India's most important project in Iran is connectivity**- through India-developed Chabahar port, as well as over the International North South Transport Corridor (INSTC) to Russia.
- Iran is an important partner when it comes to India's desire to circumvent Pakistan, to connect to Afghanistan and Central Asia.
- With the price of oil rising, and US and EU placing more restrictions on Russia, India has been exploring the possibility of reviving oil imports from Iran.
  - Iran was one of India's major suppliers, until the Trump administration threatened sanctions against India for buying Iranian oil.
    - India stopped buying Iranian oil in 2019.

### EU Agrees On Russian Oil Price Cap Of \$60 Per Barrel

- European Union governments tentatively agreed on a \$60 a barrel price cap on Russian seaborne oil, with an adjustment mechanism to keep the cap at 5% below the market price.
- The EU presidency, currently held by Czech Republic, confirmed that member state ambassadors had reached agreement on the price cap.
- The oil price cap will run alongside the EU's ban on imports of Russian oil.
  - An EU embargo on the vast majority of Russian oil imports kicks in on December 5. Hence, the price cap would apply to buyers outside the region.

[For detailed discussion on Price Cap, refer the topic "**G7 agrees to implement price cap on Russian oil**" from The Recitals -September 2022]

### EU Adopts Global Minimum 15% Tax On Big Business

- Members of the European Union agreed in principle to implement a minimum tax of 15% on big businesses.

- In 2021 a global deal to ensure big companies pay a minimum tax rate of 15% and make it harder for them to avoid taxation has been agreed by 136 countries.

### Global Tax Agreement Framed By The OECD: Background

- Companies like Apple, Facebook, Google and other tech giants profit enormously from the domestic markets while they make minimal contributions to public coffers.
  - Many countries wanted new taxes on these companies.
- To address this issue, almost 140 countries started negotiation under the auspices of the OECD.
  - They were trying to find an agreement on a global tax overhaul to address how multinationals are taxed in the nations where they have users or consumers.
- The OECD had proposed two ways to compromise:
  - Countries would be allowed to have some rights to tax profits made on the basis of sales in their jurisdictions.
  - It also talked about a global minimum corporate tax rate to stop countries lowering corporate tax rates below that level.

### Global Tax Deal Agreed By OECD:

The deal has two main elements –

- **Pillar One**, which calls for the redistribution of profits generated by the largest companies to the domicile markets where they actually make their sales instead of simply where they are headquartered.
  - A quarter of any profits they make above the 10% threshold will be reallocated to the countries where they were earned and taxed there.
- **Pillar Two**, which establishes a global minimum effective tax rate of 15% determined on a country-by-country basis.
  - The 15% floor under the corporate tax will come in from 2023, provided all countries move such legislation.

### Firms Covered By This Deal

This deal will cover firms with global sales above 20 billion Euros (\$23 billion) and profit margins above 10%. It is expected to hit digital giants like Amazon, Google and Facebook.

### Impact Of This Deal

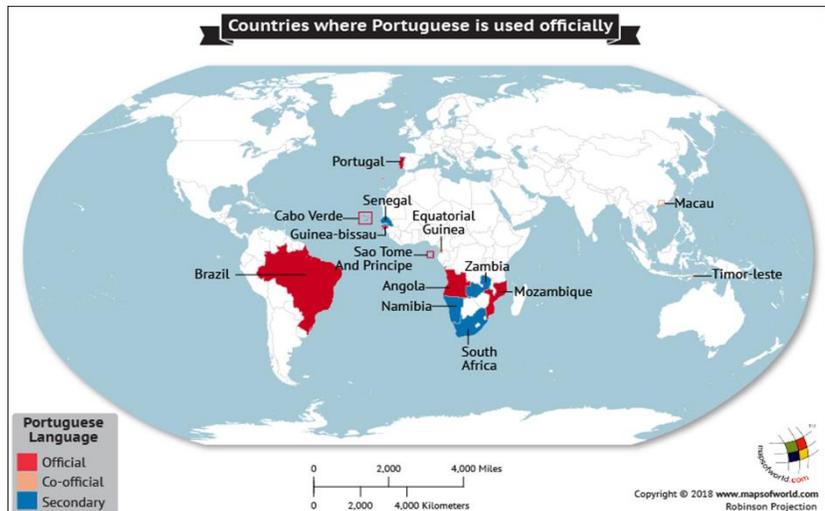
- Analysts believe that this deal will end the global race to the bottom and help governments collect the revenues required for social spending.
  - The OECD estimates the minimum tax will generate \$150 billion in additional global tax revenues annually.
- Many believe that the plan will also help counter rising global inequality by making it tougher for large businesses to pay low taxes by availing the services of tax havens.
  - As per one estimate, taxing rights on more than \$125 billion of profit will be additionally shifted to the countries where they are earned.
- On the other hand, critics believe that this deal is the threat of tax competition that keeps a check on governments which would otherwise tax their citizens heavily to fund profligate spending programs.
- They argue that without tax competition between governments, the world would be taxed a lot more than it is today, thus adversely affecting global economic growth.

## India Prioritizes Engaging Lusophone World To Tap Potential

- The Ministry of External Affairs (MEA) in partnership with the Indian Council of Cultural Relations (ICCR) and the Government of Goa organized the **International Lusophone Festival**.
- The four-day cultural festival kicked off on 3rd December **at the Raj Bhavan in Goa**.
- With this festival, India has expressed its intention to strategically engage with a new geopolitical grouping: the Lusophone (**Portuguese-speaking countries**).

### About Lusophone

- The Lusophone world are countries that speak Portuguese as their official language and were colonized by the **Portuguese**.
- With 270 million speakers, Portuguese is the **sixth most spoken language** in the world.
- The Lusophone world is comprised of **nine countries/regions** (across four continents)
- The Lusophone world is mainly a legacy of the **Portuguese Empire**, although Portuguese diaspora and Brazilian diaspora communities have also played a role in spreading the Portuguese language.
- Even after the collapse of the empire, the corresponding countries continue to exhibit both cultural and political affinities, expressed in the existence of the **Community of Portuguese Language Countries (CPLP)**.



### About Community of Portuguese Language Countries (CPLP)

- CPLP or Lusophone Commonwealth, **was founded in 1996 in Lisbon, Portugal**.
- Apart from Portugal, Angola, Brazil, Cabo Verde (Cape Verde), Guinea Bissau, Mozambique, Sao Tome & Principe were the founding members; while Timor Leste (East Timor) and Equatorial Guinea joined later.
  - **India joined CPLP as an associate observer** only in July 2021.
- CPLP started with **three key areas of action** –
  - Political and Diplomatic Coordination,
  - Cooperation in several areas,
  - Promotion and dissemination of the Portuguese language
- A significant achievement is that **these nine Portuguese-speaking nations signed agreements to facilitate cross-border movement of their citizens for any purpose** and issue residency permits for all CPLP citizens in every one of the member countries.

### India And Its Relationship With Lusophone Countries

- Though the Indo-Portuguese relationship can be traced back to the arrival of the Portuguese in India about 500 years ago, **bilateral diplomatic ties were only established in 1974-75**.
  - The first Portuguese to land in India was **Vasco De Gama** in 1498.
- Since then, bilateral ties have progressed tremendously, both politically and culturally.
- While India will continue to pursue formal bilateral engagements with the member countries individually and bilaterally, CPLP provides an opportunity to forge a Lusophone partnership – “Portuguese-speaking niche diplomacy” with the member countries.

- As CPLP is Africa-centric, cooperation with India in areas such as food security, capacity building, and tropical health would be of immediate interest.
- Other possibilities are the **development of people-to-people linkages and Track-II engagement**.
- As an Associate Observer of the CPLP, India may participate, without the right to vote, in the summits. It will have access in the council of ministers to non-confidential documentation.

### India, China Troops Clashed Near LAC In Arunachal

- Indian and Chinese troops clashed in Arunachal Pradesh's Tawang sector in the early hours of December 9, beating each other up with sticks and canes.
  - Troops from both sides sustained fractured limbs and other injuries in the clash.
- This was their closest encounter since the deadly Galwan incident in eastern Ladakh in June 2020.

### Background: Sino – India Border Dispute

- The territorial dispute along the China-India border falls across three different areas:
  - **The eastern sector**, about 90,000 square kilometers, corresponds roughly to the Indian state of Arunachal Pradesh and is under Indian control.
  - **The western sector**, sometimes called Aksai Chin or part of Ladakh, involves about 33,000 square kilometers and several districts in Xinjiang. It is under Chinese control.



- **The central or middle sector**, west of Nepal, is the smallest contested area, around 2,000 square kilometers, and control is divided.
- In 1993, after years of territorial standoffs and negotiations, China and India finally signed an agreement which attempted to mark out a long stretch of border between the two countries.
- That border is known as the **line of actual control (LAC)**, but its precise location can be blurry, and there is still dispute between China and India
  - So far, this LAC has served as the de facto border between these two countries.
  - However, in at least 13 places, however, the two sides disagree over where the LAC lies.

### Border Dispute in Eastern Sector: McMahon Line

- The disputed boundary in the Eastern Sector of the India-China border is over the McMahon Line.
  - Representatives of China, India and Tibet in 1913-14 met in Shimla to settle the boundary between Tibet and India, and Tibet and China.
  - During the Shimla conference, Sir Henry McMahon, the then foreign secretary of British India, drew up the 550 mile (890 km) McMahon Line as the border between British India and Tibet.
- The McMahon line moved British control substantially northwards. This agreement ceded Tawang and other Tibetan areas to the imperial British Empire.
  - Though the Chinese representatives at the meeting initialed the agreement, they subsequently refused to accept it.
  - Subsequently, the Chinese government stated that it does not recognize the "illegal" McMahon Line.
  - China accuses India of occupying areas in Arunachal, which it calls part of Southern Tibet.

### **Twang Sector: A Contested Area**

- Soldiers of the two sides clashed in an area called Yangtse, in the upper reaches of Tawang sector in Arunachal Pradesh.
- Tawang, indeed nearly all of Arunachal, is claimed by China.
  - It is one of the more serious dispute points between India and China in the overall border question.
- Within Tawang, there are three agreed areas of differing Indian and Chinese perceptions of the LAC. A majority of these areas – Yangtse included – were identified by two sides during multiple meetings.

### **Current Situation**

- **Tawang sector is dominated by Indian troops** who can spot Chinese patrols when they come forward.
- Every time movement is noticed, Indian troops move for a faceoff.
  - In 2016, around 250 Chinese troops showed up, crossing a point which India says marks the LAC.

### **Historical Importance Of Tawang Sector**

- Tawang is the birthplace of sixth Dalai Lama and an important pilgrimage centre for Tibetan Buddhists.
- The 14th Dalai Lama took refuge in Tawang after he crossed over from Tibet to India in 1959, spending some days in the monastery there before proceeding further.

### **Context of New India-China crisis at Tawang**

- The PLA's motivation for creating a new crisis along the disputed border, this time in the east, appears to be to extend the points of confrontation and keep the issue of India China border alive.
- This is at a time when the world is engaged in overcoming multiple crisis emanating from Ukraine War.
- The Yangtse incident came days after China said that the joint India-US military exercise Operation Yudhabhyas had violated the terms of the 1993 and 1996 border agreements.
  - The 18th edition of the India-US joint military exercise Yudh Abhyas was held recently in Uttarakhand, about 100 km from the LAC.
  - The 1993 agreement deals with maintaining peace and tranquility along the LAC.
  - The 1996 pact was about confidence building measures in military field along the LAC with China.

### **Recent Activities Of China In Eastern Sector**

- It has deployed a high number of reserve troops along the LAC in the Eastern Command.
- It has also ramped up integrated military exercises. It is conducting annual training exercises of longer duration in depth areas.
- It continues to construct **dual-use border villages** & troop habitats which can be used by both military & civilians.
- There has been a marginal increase in patrolling activities in some areas along the LAC.

### **Steps Taken By India To Counter China In This Region**

- **India Strengthening Its Vulnerabilities**
  - It is working towards mitigating the threat to the vulnerable Chicken's Neck area.
    - Chicken's Neck area or the Siliguri Corridor is the narrow strip of land that connect the North-east with rest of India. The tri-junction holds strategic importance as it overlooks the Siliguri Corridor.
  - India has also maximized the use of for ISR (intelligence, surveillance and reconnaissance).
- **New Aviation Brigade In The Eastern Sector**
  - India raised a new aviation brigade in the eastern sector this year. It was raised in March at Missamari in Assam, close to Tezpur.

- o The brigade is mandated with the task of increasing surveillance along the LAC in the eastern sector.
- **Other Measures Taken By India**
  - o India has based the second Rafale fighter squadron in Hasimara (close to Sikkim-Bhutan-Tibet tri-junction)
  - o Sukhoi-30MKI jets are already deployed at air bases like Tezpur and Chabua
  - o Akash surface-to-air missile systems along with Bofors howitzers have been deployed.

### India-Central Asia meeting of NSAs

- The **first India-Central Asia meeting of the National Security Advisers (NSAs)** was held in New Delhi. The meeting discussed the evolving security situation in Afghanistan and ways to deal with threat of terrorism emanating from that country
- This meeting was the outcome of the **India-Central Asia virtual summit held in January 2022.**
  - o In this meeting, PM Modi hosted leaders of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
  - o Participating leaders had agreed to have security chiefs meet on a regular basis to discuss India's "extended neighbourhood."

### Significance Of This Meeting: India's Emphasis On Dialogue Diplomacy

- This was the **first time India hosted a conclave** of top security officials from Central Asian countries.
  - o It coincided with the 30th anniversary of the establishment of diplomatic relations between India and Central Asian countries.
- In November 2021, India hosted a regional dialogue on the Afghanistan situation that was attended by NSAs of Russia, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.
- The NSAs will be meeting again at Shanghai Cooperation Organisation in India this year as well.
- This highlights India's emphasis on dialogue diplomacy to foster peace and stability in the region.

### In Focus: Central Asian Countries

- The Central Asia region (CA) comprises the countries of Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.
- The region extends from the Caspian Sea in the west to the border of western China in the east.
  - o It is bounded on the north by Russia and on the south by Iran, Afghanistan, and China.

### Significance of Central Asia for India

- **Energy Security:** Central Asia contains vast hydrocarbon fields and Uranium reserve. With India projected to become ever more reliant on imported energy, cultivating alternative sources of energy has become very vital.
- **Geostrategic Importance:** Being placed in the middle of the Eurasian Continent, Central Asia is one of the most convenient routes of transit.
- **Commercial Interest:** Both India and Central Asia have economic complementarity in terms of resources, manpower and markets.
- **Geopolitical Interest:** Today, Europe, US, China, and Iran are trying to increase their influence in this region. All this is likely to bring in high-stakes power politics in Central Asia.
- **Internal Security:** India sees this region as a source of religious extremism and is concerned to check the rise of radical Islamist groups which may present a terrorist threat.
  - o These security concerns are compounded by the proliferation of drug-trafficking in Central Asia.

# SUMMITS AND ORGANISATIONS

## Iran Expelled From UN Women's Commission

- In an unprecedented move, Iran has been expelled from the United Nation's **Commission on the Status of Women (CSW)** in a vote.
  - CSW is the principal global intergovernmental body exclusively dedicated to the *promotion of gender equality and the empowerment of women.*
- The Commission is made up of 45 countries which are elected by the Council to four-year terms. Iran's term, which began in 2022, was to have run through 2026.
- The US had proposed at the **UN Economic and Social Council to remove Iran from the panel.**
  - The vote came after intense lobbying by the US following widespread protests in Iran sparked by outrage against the edict compelling women to wear hijabs
- India along with 15 other nations abstained from the vote as 29 countries stood in favour of the resolution.

### ECOSOC

Economic and Social Council

- It is one of the six principal organs of UN, responsible for the direction and coordination of the economic, social, humanitarian, and cultural activities carried out by the UN.
- It was established by the UN Charter (1945) and has 54 members.
- Members are elected for three-year terms by the General Assembly.
  - Four of the five permanent members of the Security Council have been continuously re-elected because they provide funding for most of ECOSOC's budget, which is the largest of any UN subsidiary body.
- Decisions are taken by simple majority vote. The presidency of ECOSOC changes annually.
- India held the inaugural Presidency of ECOSOC (Sir Ramaswami Mudaliar, in 1946).
  - In April 2022, India was elected to four key bodies of the ECOSOC.
  - These four bodies are:
    - Committee on Non-Governmental Organizations;
    - Commission for Social Development;
    - Commission on Science and Technology for Development; and
    - Committee for Economic, Social and Cultural Rights.

#### Function

- ECOSOC is responsible for coordinating the social and economic fields of the organization, specifically in regards to the **15 specialized agencies, the five regional commissions under the jurisdiction, the eight functional commissions.**
- It also serves as a central forum to discuss the international social and economic issues and formulating policy recommendations addressed to the member states and the United Nations system.

#### UN Women

- UN Women is the United Nations entity dedicated to gender equality and the empowerment of women.
  - It was created In July 2010 by the United Nations General Assembly.
- It was created by merging the four bodies of the UN system:
  - Division for the Advancement of Women (DAW)
  - International Research and Training Institute for the Advancement of Women (INSTRAW)
  - Office of the Special Adviser on Gender Issues and Advancement of Women (OSAGI)
  - United Nations Development Fund for Women (UNIFEM)
    - It is headquartered at the United Nations in New York.

#### Functions of UN Women

- Working for the empowerment and rights of women and girls globally, UN Women's main roles are:
  - To support inter-governmental bodies, such as the Commission on the Status of Women, in their formulation of policies, global standards and norms.
  - To help Member States implement these standards, standing ready to provide suitable technical and financial support to those countries that request it, and to forge effective partnerships with civil society.
  - To lead and coordinate the UN system's work on gender equality, as well as promote accountability, including regular monitoring of system-wide progress.

## India Gets Best-Ever Aviation Safety Rank

The **United Nations aviation arm - International Civil Aviation Organisation (ICAO)**, has ranked Indian aviation safety oversight mechanism at the 48th spot - a quantum leap from its 102nd rank four years ago. It will make it easier for **Indian carriers to expand their wings abroad**, because countries with poor aviation safety records find their aircraft being subjected to more surprise checks at airports abroad.

## Background

- The ICAO had earlier audited the Indian **Directorate General of Civil Aviation (DGCA)** to check its effective implementation (EI) of critical safety elements under the **Universal Safety Oversight Audit Programme (USOAP)**.
- Following that, the UN aviation arm has given the DGCA its highest ever Effective Implementation (EI) score, putting India on the 48th spot, above that of countries like China (49), Israel (50), Turkey (54), Denmark (55) and Poland (60).
  - EI scores are given for **eight areas** - legislation, organisation, personal licensing, operations, airworthiness, aerodromes, aircraft accident and investigation.
- **Top five score countries:** Singapore, UAE, South Korea, France and Iceland. US is at 22nd place and Qatar is at 25th place.



## About International Civil Aviation Organization (ICAO):

- It is a specialised agency (headquarters - Montreal, Canada) of the UN that coordinates the principles and techniques of international air navigation.
- It was established in 1947 under the Chicago Convention (1944) and is funded and directed by 193 national governments (signatories of the convention).
- It fosters the planning and development of international air transport to ensure safe and orderly growth and to support diplomacy and cooperation among signatories in air transport.
- Its core function is -
  - To maintain an administrative and expert bureaucracy (the ICAO Secretariat) supporting these diplomatic interactions,
  - To research new air transport policy and standardisation innovations as directed and endorsed by governments through the ICAO Assembly or the ICAO Council which the assembly elects.
- ICAO is distinct from other international air transport organisations (like IATA, CANSO), particularly because it alone is vested with international authority (among signatory states).

## India To Head Wassenaar Plenary From January

- India will assume chairmanship of the plenary of the Wassenaar Arrangement (WA) for a year on **January 1, 2023**. During the recently held 26th annual plenary of the Wassenaar Arrangement in Vienna, Ireland handed over the chairmanship to India.
- As a chair of the plenary, India would be in a position to steer discussions of the group to further strengthen the export controls to prevent arms diversion to terrorists or to sovereign nations supporting terrorism.

## Significance of India's Chairmanship

- India's chairmanship of the WA Plenary is also significant in the long run considering the recent **spurt in investment and activity** in the local defence and space sectors.
- As the chair of the WA, **India could play a significant role in democratising access to technologies and processes** that can serve as crucial building blocks for the newly emerging defence and space manufacturing sectors in India.
- India is slowly emerging as a low-cost producer of several items in the WA's control lists.
- India's chair-ship would go a long way

## About Wassenaar Arrangement:

- The Wassenaar Arrangement is a voluntary export control regime.

### Purpose –

- To promote transparency and greater responsibilities for transfers of **conventional arms and dual-use goods**, as well as technologies, to prevent destabilizing actions.
- The body came into being in **1996** to succeed the Cold War-era Coordinating Committee for Multilateral Export Controls.
- The name comes from **Wassenaar**, a suburb of the **Hague, Netherlands**, where the agreement to start such a multi-lateral cooperation was reached in 1995.
- **Headquarters – Vienna, Austria**

### Working:

- The group works by regularly exchanging information in respect of technology, both conventional and nuclear-capable, that is sold to, or denied to countries outside the grouping.
- This is done through maintenance and updating of detailed lists of chemicals, technologies, processes and products that are considered militarily significant.
- Through this exchange of information, the group aims at controlling the movement of technology, material or components to countries or entities which undermine international security and stability.
- The aim, according to WA, is also to prevent the acquisition of these items by terrorists.

in establishing the credibility of the country as a **responsible stakeholder in the global non-proliferation architecture**.

### What Are Wassenaar Control Lists?

- The Arrangement works according to what it calls WA Control Lists.
- The controls are **subject to ratification by the participants**.

### Members

- The WA has **42 members**. India became a member of the WA in **2017**.
- With the **exception of China**, all the other permanent members of the U.N. Security Council are signatories of the WA.

### 100 Monuments -Lit For A Week As India Assumes G20 Presidency

- One hundred centrally protected monuments were illuminated for a week beginning December 1 when India assumes the G20 presidency for a year.
- The move is part of the branding and publicity plan of the ASI monuments during the G20 with a special focus on UNESCO World Heritage sites.
- All illumination during the events would highlight the G20 logo over the monument and it shall be ensured that the logo used is as per the guidelines issued by the Ministry of External Affairs.

[For detailed discussion on G-20, refer the topic **G20 Summit 2022: Bali Declaration** from *The Recitals -November 2022*]

### India Assumes Presidency Of UN Security Council For Month Of December

- India has assumed the Presidency of the UN Security Council for the month of December 2022.
- It is the second time in its two-year tenure as an elected member of the UN Security Council that India has assumed the Presidency of the Council.
  - India had earlier assumed the Presidency of the UNSC in August 2021.
- Events under India's presidency:
  - high-level open debate on Maintenance of International Peace and Security: New Orientation for Reformed Multilateralism" at the Security Council.
    - New Orientation for Reformed Multilateralism envisages reforms in the current multilateral architecture, with the UN at its centre, to make it more representative and fit for purpose.
  - Threats to International Peace and Security Caused by Terrorist Acts: Global Approach to Counter Terrorism — Challenges and Way Forward.

#### UNSC Presidency

- According to the UNSC rules of procedure, the **Council presidency rotates between each of the 15 members of the UNSC, in alphabetical order.**
- In the UNSC, the Council President has a broad range of procedural powers.
  - They can call and preside over meetings, approve the provisional agenda, issue presidential statements and sign the record of the council meetings.
- Before the presidency begins, the Council presidency plans the monthly programme of work.
- In practice, the presidency team will consult the other members of the UNSC and discuss the draft programme over an informal breakfast.

## Navy Gets 5th Scorpene-Class Submarine

- The fifth submarine (INS Vagir) of Project 75 to build Kalvari class diesel-electric attack submarines was delivered to the Indian Navy.
- Kalvari class of submarines is based on Scorpene class of submarines. Submarines of the Kalvari class are



### Kalvari Class

- This class of submarines have Diesel Electric transmission systems and are attack submarines also known as the 'hunter-killer' type, which means they are designed to target and sink adversary naval vessels.
- The Kalvari-class submarines have the capability of operating in a wide range of Naval combat including anti-warship and anti-submarine operations, intelligence gathering and surveillance, and naval mine laying.
- These submarines are around 220 feet long and have a height of 40 feet.

## 5<sup>TH</sup> OF INDIA'S 6 DEADLIEST SUBS DELIVERED VAGIR TO BE 18<sup>TH</sup> OF NAVY'S IN-SERVICE FLEET

**The fifth of six Scorpene-design submarines, Vagir, was delivered to the Navy by Mazagon Dock Shipbuilders Limited (MDL) on Tuesday and will soon be commissioned. The sixth sub is under sea trials and is expected to be delivered within a year. With advanced stealth features, this class of subs is a major boost to India's naval might. But how strong is the Navy's submarine fleet and how does it compare with regional rivals?**  
**V Narayan reports**

**Kalvari Class (Scorpene, French Design)**

The class features diesel propulsion and additional air-independent propulsion. Built under Project 75\*

Sub	Commissioning
Kalvari	Dec 2017
Khanderi	Sept 2019
Karanj	Dec 2020
Vela	Dec 2021
Vagir	Dec 2022
Vagsheer	2023**

\*The name of the Navy's Scorpene programme at MDL  
\*\*Expected

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### INDIA'S SUBMARINES

**In service**  
**17**

**Commissioning soon**  
**1**

**Undergoing sea trials**  
**1**

**Decommissioned**  
**3**

**4 subs in service**  
**1 about to be commissioned**  
**1 undergoing sea trials**

**Stealth factor** | Scorpene-class submarines have advanced acoustic silencing techniques, low-radiated noise levels, hydro-dynamically optimised shape. They can launch attacks using precision-guided weapons including torpedoes and missiles

**Type** | Attack submarine  
**Armaments** | Torpedos (or mines), anti-ship missiles  
**Length** | **67.5 metres**

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### HOW FLEETS COMPARE

Comparison of naval submarine fleets in India's neighbourhood:

**60** China  
**17** India  
**8** Pak

The numbers pertain to what is known. Countries keep a lot of data on submarines secret, including information on the exact number of submarines they have

### Sindhughosh Class (Russian Design)

7 subs in service. 3 decommissioned

○ Kilo class diesel-electric submarines. Were built under a contract between the erstwhile USSR's Rosvooruzhenie and the Ministry of Defence (India)

**Type** | Attack submarine  
**Armaments** | Club-S missile, torpedo, anti-submarine missile, active-passive homing torpedo  
**Length** | **72.6m**

### Shishumar Class (German Design)

4 subs in service

○ These are diesel-electric submarines, developed by the German yard Howaldtswerke-Deutsche Werft (HDW). The first two were built by HDW at Kiel, Germany, and the rest at MDL Mumbai. The ships were commissioned between 1986 and 1994

**Type** | Attack submarine  
**Armaments** | Torpedoes, external strap-on mines, Harpoon Block II missiles  
**Length** | **64.4m**

### Arihant Class (Indian Design)

2 in service

○ The nuclear subs INS Arihant and Arighat are a class of Indian nuclear-powered ballistic missile subs classified as 'strategic strike nuclear submarines'. Arihant (launched in 2009, and after extensive sea trials, commissioned in 2016) was the first ballistic missile sub to have been built by a country other than one of the five permanent members of the UN Security Council

**Type** | Nuclear-powered ballistic missile submarine  
**Armaments** | Torpedoes, cruise missiles and mines  
**Length** | **111m**

- The submarines can reach the highest speeds of 11 knots when surfaced and 20 knots when submerged.

### P-75 India project

- In June 1999, the Cabinet Committee on Security had approved a plan for the Indian Navy to induct 24 indigenously build submarines by 2030.
- It was broken down in two phases — the P-75 and P-75I.
- Of the total 24 submarines to be built in India, six will be nuclear-powered.

### First Phase: P-75

- Under the first phase of P-75, signed in 2005, India and France signed a \$3.75 billion contract for building six Scorpene class submarines.

**VAJIRAM AND RAVI**

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- The executing company on the Indian side was Mazagaon Docks Ltd, and on the French side, it was DCNS, which is now called Naval Group.
- Under this project, the first submarine was commissioned in December 2017.
- Subsequently, the other five have been built and in April, 2022 INS Vagsheer was launched and would be commissioned by 2023.

#### Second Phase: P-75I

- The P-75I phase approved in 2007 envisages the **construction of six conventional submarines** with better sensors and weapons and the Air Independent Propulsion System (AIP).
- Defence Acquisition Council cleared the project in 2019 **under the strategic partnership (SP) model**.
  - The Ministry of Defence (MoD) announced in 2017 the much-anticipated SP model for the Indian private sector.
    - This was announced to promote Make in India in defence manufacturing
  - SP model seeks to identify a few Indian private companies as Strategic Partners who would initially tie up with a few shortlisted *foreign Original Equipment Manufacturers (OEMs)* to manufacture big-ticket military platforms.

#### INS Mormugao Commissioned

- **Indian Naval Ship (INS) Mormugao**, 2<sup>nd</sup> warship of the **P15B class** of stealth guided-missile destroyers, was commissioned into the Indian Navy. The ship has around 75% indigenous content
- The event marked the formal induction of the **second of the four Visakhapatnam class destroyers**.
  - Destroyers are a category of warships (mainly offensive) that have high speed, manoeuvrability, and longer endurance to be part of the escort for larger vessels in a fleet, or a carrier battle group also known as a carrier strike group.
  - The Visakhapatnam class is one of the most advanced ships in the Indian Navy, which can operate as an independent offence platform even without being part of a large formation.

#### Project 15B

##### Background

- India's indigenous Destroyer construction programme started in late 1990s with three Delhi class (P-15 class) warships - INS Delhi, INS Mysore, and INS Mumbai.
  - A ship 'class' describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.
- Later, as a follow up, the Indian Navy has commissioned three guided missile destroyers of the Kolkata class under the **P-15A**.
  - These three missile destroyers were — **INS Kolkata, INS Kochi, and INS Chennai**.
- Presently, a total of four warships are planned under the **P-15B** (Visakhapatnam Class).
  - These four warships are - **Visakhapatnam, Mormugao, Imphal, Surat**.

##### About Project 15B

- P15B destroyers incorporate new design concepts for improved survivability, seakeeping and maneuverability.
  - **Enhanced stealth** has also been achieved, making the ships difficult to detect.
- With a significantly increased indigenous content, P15B destroyers are a hallmark of self-reliance in warship design and building and a shining example of 'Aatmanirbhar Bharat'.

- The Project 15B class of guided-missile destroyers, an improved variant of the Kolkata-class destroyers, are built by Mazagon Dock Limited (MDL) for the Indian Navy.
  - It has been designed by the Warship Design Bureau, Indian Navy's in-house warship design body.
- The contract for the construction of four Project 15B destroyers was signed in January 2011.
- The lead ship under this project, INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.

### China Cyberattacks: Centre Issues SOP For Employees

- Facing repeated cyberattack attempts from China, the government has decided to tighten its vigil. Employees across ministries and public sector units (PSUs) being asked to follow a standard operating protocol (SOP) or face disciplinary action.
- This SoP has various steps including basic hygiene such as switching off computers, signing out of emails and updating passwords.

#### Background

- In November, 2022, a breach was detected in AIIMS' internal systems. Not much later, the hospital's digital patient management system was crippled.
  - The attack derailed everyday work, appointments and registration, billing, patient care information and lab reports.
  - It corrupted files and data on main and backup servers of the mega-hospital.
  - This led the hospital to shut down most digital patient care systems and move to manual means.
- Different media reports claimed that hackers asked for a ransom in order to return access to that data.



#### Increased Attacks In Recent Months

- In recent months, from the power grid to the banking system, there have been multiple cyberattacks.
- A report by CERT-IN has estimated a **51% jump** in ransomware incidents that were reported during the first half of 2022.
  - While a majority of the attacks were on data centres, IT sector, manufacturing and finance; critical infrastructure including oil and gas, transport, power were also hit.
- Separately, cyber security firm Norton said in a report that India had faced over 18 million cyber threats during the first quarter of 2022.
- Most of these attacks are believed to be the handiwork of Chinese hackers, who often operate as "sleepers cells" using the computers of Indian users.

#### Malware

Malware, or malicious software, is any program or file that is intentionally harmful to a computer, network or server. It basically is a program designed to gain access to computer systems, normally for the benefit of some third party, without the user's permission.

#### Types

- **Viruses**
  - A Virus is a malicious executable code attached to another executable file. The virus spreads when an infected file is passed from system to system.

- o Viruses can be harmless or they can modify or delete data. Once a program virus is active, it will infect other programs on the computer.

- **Worms**

- o Worms replicate themselves on the system, attaching themselves to different files and looking for pathways between computers, such as computer network that shares common file storage areas.
- o Worms usually slow down networks. A virus needs a host program to run but worms can run by themselves.

- **Spyware**

Its purpose is to steal private information from a computer system for a third party. Spyware collects information and sends it to the hacker.

- **Trojan horse**

- o A Trojan horse is malware that carries out malicious operations under the appearance of a desired operation such as playing an online game.
- o A Trojan horse varies from a virus because the Trojan binds itself to non-executable files, such as image files, audio files.

- **Logic Bombs**

- o A logic bomb is a malicious program that uses a trigger to activate the malicious code.
- o The logic bomb remains non-functioning until that trigger event happens.
- o Once triggered, a logic bomb implements a malicious code that causes harm to a computer.

- **Ransomware**

- o Ransomware grasps a computer system or the data it contains until the victim makes a payment.
- o Ransomware encrypts data in the computer with a key which is unknown to the user. The user has to pay a ransom (price) to the criminals to retrieve data.

- **Backdoors**

- o A backdoor by-passes the usual authentication used to access a system.
- o The purpose of the backdoor is to grant the cyber criminals future access to the system even if the organization fixes the original vulnerability used to attack the system.

- **Rootkits**

A rootkit modifies OS to make a backdoor. Attackers then use backdoor to access the computer distantly.

- **Keyloggers**

- o Keylogger records everything the user types on his/her computer system to obtain passwords and other sensitive information and send them to the source of the keylogging program.

## Yudh Abhyas

- The 18<sup>th</sup> edition of India-US joint military exercise Yudh Abhyas was conducted in Auli (Uttarakhand), about 100 km from the LAC.
- Exercise Yudh Abhyas is conducted annually between **India and USA** with the aim of exchanging best practices, Tactics, Techniques and Procedures between the Armies of the two nations.
- China had objected to the military exercise, arguing that it violates the agreements it had with India in 1993 and 1996. The Chinese defence ministry had said that it saw the drill as an effort by third party to meddle in India-China border affairs.
- In response, India said it does not give a veto to third countries on matters such as its joint military exercises with any country.

# GEOGRAPHY AND ENVIRONMENT

## Great Barrier Reef (GBR) is in Danger

A joint report by the IUCN and UNESCO's World Heritage Centre (WHC) has recommended that the Great Barrier Reef be inscribed on the List of World Heritage in Danger.

### What does the IUCN-WHC report say?

- It is adversely and significantly impacted by climate change factors affecting its resilience to sustain and regenerate itself.
- Frequent bleaching events have made many reefs sterile.
- Degraded water quality poses a particular threat to marine life and corals.
- Pollutants from agricultural and construction activities have been damaging and other proposed developments around the Queensland coast are matters of concern.
- The implementation of existing plans to conserve the GBR has been falling short, specifically in relation to the management of water quality and fishing activities.

### What does Putting GBR on the List of World Heritage in Danger entail?

- The list is to inform the conditions which threaten the very characteristics for which a property was inscribed on the World Heritage List, and to encourage corrective action.
- Under the **1972 World Heritage Convention**, inscribing a site on the List allows the WHC to allocate immediate assistance from the **World Heritage Fund** to the endangered property
- It will also invite greater scrutiny of the site.
- Some countries welcome the additional support, many often oppose it and try to avoid it, seeing it as a major embarrassment for the country.

### Coral Reef is being frozen for Protection

- Scientists froze Great Barrier Reef corals in the world's first test. They used the cryomesh to freeze coral larvae.

### About Cryomesh

- It is a specially fabricated mesh used as substrate in cryopreservation.
- It is lightweight and can be manufactured cheaply.
- The mesh technology will help store coral larvae at  $-196^{\circ}\text{C}$  ( $-320.8^{\circ}\text{F}$ ).

### Significance of Cryogenically Frozen Coral

- It can be stored and later reintroduced to the wild to protect them.
- It could eventually help rewild reefs threatened by climate change.

*{For more about Great barrier Reef, refer The Recitals-August 2022}*

## State of Global Water Resources Report 2021

World Meteorological Organization (WMO) has published its 1<sup>st</sup> State of Global Water Resources report.

### About the Report

- Report assesses the effects of climate, environmental and societal change on the Earth's water resources.
- The aim of this annual stock take is to support the monitoring and management of global freshwater resources in an era of growing demand and limited supplies.

- The report focuses on three major areas -

- Streamflow - the volume of water flowing through a river channel at any given time
- Terrestrial water storage (TWS) - all water on the land surface and in the sub-surface
- The cryosphere - Frozen water (snow and ice)

### Key findings of the Report

- Currently, 3.6 billion people face inadequate access to water at least a month per year and this is expected to increase to more than 5 billion by 2050.
- Between 2001-2018, UN-Water reported that *74% of all natural disasters were water related.*

Findings Related to Streamflow	Findings Related to Terrestrial water storage	Findings Related to Cryosphere
<ul style="list-style-type: none"> <li>• <b>Drought:</b> Large areas of the globe recorded dryer than normal conditions in 2021, compared to the average of the 30-year hydrological base period. <ul style="list-style-type: none"> <li>➢ These areas include South America’s Rio de la Plata area, the South and South-East Amazon, and the Colorado, Missouri and Mississippi river basins.</li> </ul> </li> <li>• <b>Below Normal:</b> In Africa, rivers such as the Niger, Volta, Nile, Congo and rivers in parts of Russia, West Siberia and in Central Asia had less than normal discharge in 2021.</li> <li>• <b>Above normal:</b> Significant flooding events have been reported from China, northern India, western Europe, and countries affected by tropical cyclones such as Mozambique, Philippines, and Indonesia.</li> </ul>	<ul style="list-style-type: none"> <li>• The report pointed out several hotspots with a <i>negative trend</i> in terrestrial water storage. <ul style="list-style-type: none"> <li>➢ These include Brazil’s Rio Sao Francisco basin, Patagonia, the Ganges and Indus headwaters, as well as south-western USA.</li> </ul> </li> <li>• It was <i>above normal</i> in the central part of Africa, the northern part of South America, specifically the Amazon basin, and the northern part of China.</li> </ul>	<ul style="list-style-type: none"> <li>• Changes to cryosphere water resources affect food security, human health, ecosystem integrity and maintenance, and lead to significant impacts on economic and social development.</li> <li>• Such changes also cause hazards such as river flooding and flash floods due to glacier lake outbursts.</li> </ul>

### Significance of the Report

- It will fill that knowledge gap and provide a concise overview of water availability in different parts of the world.
- It will inform climate adaptation and mitigation investments as well as the UN campaign to provide universal access to early warnings of hazards such as floods and droughts.
- It will provide the incentive to regularly assess changes in the cryosphere and the variability of water resources, at basin and regional level.



**WORLD METEOROLOGICAL ORGANIZATION**

- It is a specialized agency of the United Nations, established in 1950.
- It originated from the International Meteorological Organization (IMO), which was established after the **1873 Vienna International Meteorological Congress**.
- Headquartered in Geneva, Switzerland.
- Its work is dedicated to meteorology, climatology, operational hydrology and other related geophysical sciences such as oceanography and atmospheric chemistry.
- India is a member of WMO.
- It publishes an annual report on the status of the World Climate.
  - This report will provide detailed information on temperatures at the local, national and global levels along with extreme weather events.

### CCUS) Policy Framework and its Deployment

NITI Aayog has released a study report, titled ‘Carbon Capture, Utilisation, and Storage (CCUS) Policy Framework and its Deployment Mechanism in India’.

## Key Highlights of the Report

- The report explores the importance of CCUS as an emission reduction strategy to achieve **deep decarbonization from the hard-to-abate sectors**.
- The report outlines the broad level of policy interventions needed across various sectors for its application.

## About CCUS

- It encompasses methods and technologies to remove CO<sub>2</sub> from the flue gas and from the atmosphere.
  - It is followed by recycling the CO<sub>2</sub> for utilization and determining safe and permanent storage options.
- CO<sub>2</sub> captured using CCUS technologies is converted into fuel (methane and methanol), refrigerants and building materials.

## Carbon Capture and Storage

- It is a method of lowering carbon emissions that could be critical in combating global warming.
- It is a **three-step process** that involves *absorbing carbon* dioxide produced by power generation or industrial activity such as steel or cement production, *transporting it*, and *storing it deep below*.

## Significance of CCUS

- It can enable the production of clean products while still utilizing our rich endowments of coal, reducing imports and thus leading to an Atmanirbhar Indian economy.
- CCUS projects will also lead to a significant employment generation.
  - It estimates that about 750 Million Tonnes Per Annum (mtpa) of carbon capture by 2050 can create employment opportunities of about 8-10 million.

## Why We Need CCUS

- After China and United States, India is the world's 3<sup>rd</sup> highest CO<sub>2</sub> emitter, with yearly emissions estimated at 2.6 gigatonnes (gtpa).
- Indian government has pledged to cut CO<sub>2</sub> emissions by half by 2050 and reach net zero by 2070.

## Challenges Associated with CCUS

- Carbon capture involves the development of sorbents that can effectively bind to the CO<sub>2</sub> present in flue gas or the atmosphere, which is expensive.
- The application of CO<sub>2</sub> storage technologies or other carbon management strategies may raise the cost of energy.
- Another challenge for the implementation of CCUS is determining and communicating the social cost of carbon across various communities that include scientists, engineers, policy makers and the general public.

In addition to addressing the technical aspects of CCUS, it is also critical to address the societal and economic costs of climate change.

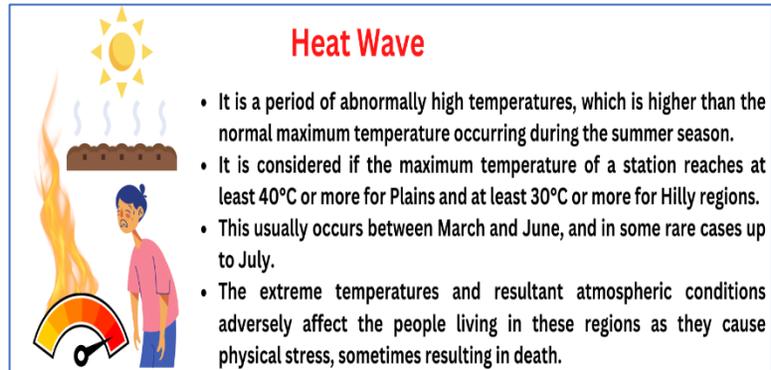
## World Bank Report On India's Cooling Sector

- The report, "**Climate Investment Opportunities in India's Cooling Sector**" was released by the World Bank
- The report builds upon the India Cooling Action Plan, a government initiative to bring affordable and energy-efficient cooling at the forefront of the country's policy agenda.

## Key Highlight of the Report

- India is experiencing higher temperatures every year. By 2030, over 160-200 million people across the country could be exposed to lethal heat waves annually.
- Around 34 million people in India will face job losses due to heat stress related productivity decline.

- The current food loss due to heat during transportation is close to \$13 billion annually.
- By 2037, the demand for cooling is likely to be eight times more than current levels.
  - This means there will be a demand for a new air-conditioner every 15 seconds, leading to an expected rise of 435% in annual greenhouse gas emissions over the next two decades.
- Keeping spaces cool using alternative and innovative energy efficient technologies can open an investment opportunity of \$1.6 trillion by 2040.
  - This also has the potential to reduce greenhouse gas emissions significantly and create nearly 3.7 million jobs (sectors — construction, cold chains and refrigerants)



### Suggestion Given In The Report

- It suggests a sustainable roadmap for cooling that has the potential to reduce 300 million tons of carbon dioxide annually by 2040.
- It also recommends private investments in district cooling technologies.
- Fix the gaps in cold chain distribution networks to minimize rising food and pharmaceutical wastage during transport due to higher temperatures.
  - Investing in pre-cooling and refrigerated transport can help decrease food loss by about 76% and reduce carbon emissions by 16%.
- Adopting climate-responsive cooling techniques as a norm in both private and government-funded constructions can ensure that those at the bottom of the economic ladder are not disproportionately affected by rising temperatures.
- Government should include a **thermal comfort programme** in its affordable housing Pradhan Mantri Awas Yojana (PMAY).
  - Thermal comfort through passive cooling technologies in these households could benefit over 11 million urban households and 29 million rural households

### Way Forward

- India is already deploying new strategies to help people adapt to rising temperatures.
- In 2019, it launched the **India Cooling Action Plan (ICAP)**, a 20-year perspective, to provide sustainable cooling measures across various sectors.
  - ICAP seeks to recognize “cooling and related areas” as a thrust area of research under the National S&T Programme.
  - It is part of India’s national strategy for cooling, whose objective is to reduce country-wide demand for cooling by 25 % by 2037-2038.
  - It also seeks to reduce cooling **energy** requirements by 25% to 40% by 2037-38.
  - Training and certification of 1,00,000 servicing sector technicians by 2022-23, in synergy with Skill India Mission.
- India aims to phase out the production and use of ozone-depleting hydrochlorofluorocarbons, used as coolants in air conditioners and refrigerators by 2047.
- India’s cooling strategy can help save lives and livelihoods, reduce carbon emissions and simultaneously position India as a global hub for green cooling manufacturing.

## Vanikaran Project

- The Forest department in association with Noolpuzha grama panchayat has launched the Vanikaran project.
- It aims to root out invasive plants, especially **Senna spectabilis**, and restore natural forests.
- The project was executed on 30 hectares of forest land under the Sulthan Bathery forest range of the Wayanad Wildlife Sanctuary.
- Apart from planting the saplings, the authorities ensure the protection of plants for the next five years under the project.
- The workers have also constructed soil bunds and pits for harvesting rainwater to ensure availability of water for the saplings.

### Wayanad Wildlife Sanctuary

- It is the **2<sup>nd</sup> largest** wildlife sanctuary in **Kerala** after Periyar Wildlife Sanctuary.
- It is an integral part of the Nilgiri Biosphere Reserve.
- It is surrounded by the protected areas of Mudumalai in Tamil Nadu as well as Nagarhole and Bandipur in Karnataka.
- About one third of the sanctuary is covered by plantations of teak, rosewood, eucalyptus and silver oak.

## Environment Education, Awareness and Training (EEAT)

The Environment Education, Awareness and Training (EEAT) scheme has been revamped into the Environment Education Programme.

### About Environment Education, Awareness and Training (EEAT)

- It is a central sector scheme of the Ministry of Environment, Forestry, and Climate Change (MoEF&CC). It was launched during the 6<sup>th</sup> Five Year Plan in 1983-84.
- The scheme aims –
  - To promote environmental awareness among all sections of society.
  - To spread environmental education.
  - To mobilize student’s participation for environment conservation.
- This scheme comprises three programmes namely:

National Green Corps  
“Eco-club” programme

National Nature  
Camping programme

Capacity Building  
Activities

National Green Corps (NGC) Programme	National Nature Camping Programme (NNCP)	Capacity Building Activities
<ul style="list-style-type: none"> <li>• It is a programme launched by MoEF&amp;CC for Schools.</li> <li>• Under this scheme more than 1 lakh Eco-clubs have been formed in schools and colleges to educate students and to spread awareness on environmental.</li> <li>• Each club has <u>30 to 50 NGC Students or NGC Cadets</u> who form the National Green Corps.</li> <li>• A financial assistance of Rs 5,000/- per Eco-club used to be provided with a ceiling of 500</li> </ul>	<ul style="list-style-type: none"> <li>• It is also known as the National Environment Awareness Campaign (NEAC).</li> <li>• It is a <b>multi-media campaign</b> that spreads environmental messages through traditional and non-traditional communication channels.</li> </ul>	<ul style="list-style-type: none"> <li>• The objective of this programme is to support capacity building activities and to impart <u>skills to students and teachers of Eco-club on various thematic areas.</u></li> <li>• Areas include bio-diversity</li> </ul>

<p>school Eco-clubs per district and 100 college Eco-clubs per State.</p> <ul style="list-style-type: none"> <li>• These Students participate in activities related to Biodiversity Conservation, Water Conservation, Energy Conservation, Waste Management and Land Use Planning and Resource Management.</li> </ul>	<ul style="list-style-type: none"> <li>• Under this programme, <b>field trips</b> are organized to various <b>protected areas / Nature Parks/ Tiger Reserves</b> all over the country for three days.</li> </ul>	<p>conservation, waste management and the concept of 4Rs – Reduce, Reuse, Recycle &amp; Recover, 17 Sustainable Development Goals etc.</p>
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### Significance Environmental Education

- UNESCO claims that environmental education is a method of putting into practice the objectives of environmental protection.
- It focuses on those aspects of human behavior that are more directly related to how people interact with and experience their biophysical environment.

### 2022 Restoration Barometer Report

2022 Restoration Barometer Report released by International Union for Conservation of Nature (IUCN). It has highlighted that the investments of \$26bn across 18 countries have brought 14 million hectares of degraded landscapes under restoration.

#### About The Report

- It is the only tool currently used by national and sub-national governments to track progress on the implementation of restoration targets across all terrestrial ecosystems.
- It was launched in 2016 as the Bonn Challenge Barometer.
- ✓ Bonn Challenge is a global effort to restore 150 million hectares of the world's degraded and deforested lands by 2020 and 350 million hectares by 2030
- It helps in highlighting progress against global commitments such as UN Decade on Ecosystem Restoration, Bonn challenge, Paris agreement etc.
- It also shows the importance of enabling structures, such as policies and funding, for the long-term positive impacts of restoration to be realized.

### Western Disturbances

The daytime temperatures in Delhi were above normal in December 2022 because of fewer Western Disturbances.

#### ABOUT WESTERN DISTURBANCES

- It is an extra-tropical storm which originates in the Mediterranean region.
- It develops in the mid-latitude region (north of the Tropic of Cancer), not in the tropical region, therefore they are also called mid-latitude storms.
- The disturbance travels from the western to the eastern direction.
- The word Western refers to the direction from which they originate with regard to India.
- Disturbance means an area of *disturbed or reduced air pressure*. Equilibrium exists in nature due to which the air in a region tries to normalise its pressure.



The map illustrates the typical path of Western Disturbances. A dashed red line shows the storm's trajectory starting from the Mediterranean Sea, moving eastward through the Caspian Sea, Iran, Afghanistan, and Pakistan, and finally reaching the Indian subcontinent. Key geographical features labeled include the Mediterranean Sea, Caspian Sea, Iran, Afghanistan, Pakistan, India, Arabian Sea, and Bay of Bengal. A yellow dot marks the location of Uttarakhand in India.

## Impact of Western Disturbance

- It plays an important role in bringing moderate to heavy rains in low-lying areas and heavy snowfall in hilly areas.
  - It is estimated that India gets close to 5-10% of its total annual rainfall from it.
  - The rain generated has a great impact on agriculture, especially for rabi crops.
- In the regions of the Indo-Gangetic plains, it sometimes brings cold wave conditions and dense fog.
- It is not always the harbingers of good weather. Sometimes it can cause extreme weather events like floods, flash floods, landslides, dust storms, hailstorms and cold waves.
  - In 2010 cloudburst in Leh was caused due to the western disturbances, in which 71 towns and villages were damaged and 225 people died.

## World Bank Report on Air Pollution

World Bank released a report titled 'Striving for Clean Air: Air Pollution and Public Health in South Asia'.

### Key Highlights of the Report

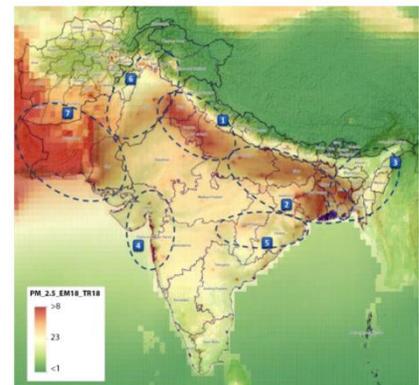
- **India's Scenario -**
  - India has in total six large airsheds, some of them shared with Pakistan.
  - The World Bank defines an airshed as a common geographic area where pollutants get trapped, creating similar air quality for everyone. An airshed is the volume over an area of land in which airborne chemicals travel to reach a particular body of water.
- **South Asia's Scenario -**
  - Currently over 60% of South Asians are exposed to an average 35  $\mu\text{g}/\text{m}^3$  of PM<sub>2.5</sub> annually.
  - In some parts of the Indo-Gangetic Plain it spiked to as much as 100  $\mu\text{g}/\text{m}^3$  nearly 20 times the upper limit of 5  $\mu\text{g}/\text{m}^3$  recommended by WHO
  - South Asia is home to 9 of the world's 10 cities with the worst air pollution, which causes an estimated 2 million premature deaths across the region each year.
- **Sources of Air Pollution –**
  - Large industries, power plants and vehicles are dominant sources of air pollution around the world, but in South Asia, other sources make substantial additional contributions.
  - These include combustion of solid fuels for cooking and heating, emissions from small industries such as brick kilns, burning of municipal and agricultural waste.

### Suggestions Given by the World Bank

- It calls for full coordination between airsheds, would cut the average exposure of PM 2.5 in South Asia to 30  $\mu\text{g}/\text{m}^3$ .
- To achieve greater progress, the focus of policy makers should expand into other sectors, particularly small manufacturing, agriculture, residential cooking, and waste management.

#### 6 airsheds of India are

- **West/Central Indo-Gangetic Plain (IGP)** that included Punjab (Pakistan), Punjab (India), Haryana, part of Rajasthan, Chandigarh, Delhi, Uttar Pradesh.
- **Central/Eastern IGP:** Bihar, West Bengal, Jharkhand, Bangladesh
- **Middle India:** Odisha/Chhattisgarh
- **Middle India:** Eastern Gujarat/Western Maharashtra
- **Northern/Central Indus River Plain:** Pakistan, part of Afghanistan; and
- **Southern Indus Plain and further west:** South Pakistan, Western Afghanistan extending into Eastern Iran.



- Curbing air pollution requires not only tackling its specific sources, but also close coordination across local and national jurisdictional boundaries.
- Regional cooperation can help implement cost-effective joint strategies that leverage the interdependent nature of air quality.

### Chillai Kalan

- The harshest winter periods of 40 days, called Chillai Kalan, has begun in Kashmir.
- It is the harshest winter period in Kashmir starting from 21st December to 29th January every year.
- It brings a lot of hardships for Kashmiris as the temperature drops considerably leading to the freezing of water bodies, including the famous Dal Lake.
- During these 40 days, the chances of snowfall are the highest and the maximum temperature drops considerably.
- Use of Pheran (Kashmiri dress) and a traditional firing pot called Kanger increases.

### Post Chillai Kalan

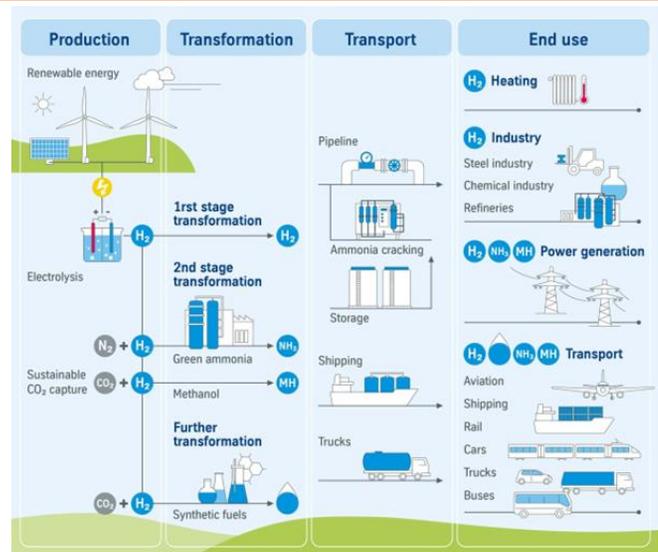
- Chillai-Kalan is followed by a 20-day long Chillai Khurd which occurs between January 30 - 31 and February 18 - 19.
- Chillai Khurd is followed by a 10-days long Chillai Bachha which is from February 19 - 20 to February 28 - March 2.

### Green Methanol

State-owned power generation company NTPC has partnered with Tecnimont to explore green methanol production at a commercial scale. The green methanol project involves capturing carbon from NTPC power plants and converting it into a green fuel.

#### About Green Methanol

- It is methanol that is produced renewably and without polluting emissions, one of its variants being generated from green hydrogen.
- It is a low-carbon fuel that can be made from either **biomass gasification** or **renewable electricity and captured carbon dioxide (CO<sub>2</sub>)**.
- This chemical compound can be used as a low-carbon liquid fuel.
- It is a promising alternative to fossil fuels in areas where decarbonisation is a major challenge, such as maritime transport.



(For more about Green Hydrogen, refer The Recitals - July 2022)

### What is Refuse Derived Fuel?

- This fuel is produced from combustible components that the industry calls Municipal Solid Waste.
- It is a renewable energy source that ensures waste simply isn't thrown into a landfill and instead, put to good use.

## Abalone shellfish, Dugong and Pillar Corals

- **Abalone shellfish** – It is a marine snail, found in various country like Australia, UK, South Africa, and New Zealand. The flesh of abalones is widely considered to be a desirable food.
- **Dugongs** – It also called Sea Cow. It is the only existing species of herbivorous mammal that lives exclusively in the sea including in India. It is listed as Vulnerable on the IUCN Red List.
- **Pillar corals** - It is a hard coral found in the western Atlantic Ocean and the Caribbean Sea. It is listed as Critically Endangered on the IUCN Red List.

## Aichi Targets

- The Convention on Biological Diversity (CBD) adopted the Aichi Biodiversity Targets at the Nagoya conference in 2010.
- It laid out a 10-year plan, which had 20 global biodiversity targets, divided under five goals, with a deadline of 2020.
- These targets are non-binding in nature.
- No single country met all 20 Aichi Targets within its own borders, according to a September 2020 UN assessment.

## Erra Matti Dibbalu

- These are rare red sand dunes, Located between Visakhapatnam and Bheemunipatnam in Andhra Pradesh.
- These dunes are formed around 12,000 years ago due to sea-land interaction.
- The width of the dunes, which runs for five kilometres along the coast, varies from 200 metres to two kilometres.
- It is listed among the 34 notified National Geological Heritage Monument Sites of India.

## Bum La Pass

- It is a mountain pass located at the Indo-China border above 15,200 ft above sea level.
- It is about 37 km away from Tawang in Arunachal Pradesh.
- The pass currently serves as a trading point between Arunachal Pradesh and Tibet.

## Species in News

<p><b>Jeypore Ground Gecko</b></p> 	<ul style="list-style-type: none"><li>• It is found in the Eastern Ghats and is known to be present in four locations including southern Odisha and northern Andhra Pradesh.</li><li>• It is listed as Endangered in the IUCN Red list and not listed in Wild Life (Protection) Act, 1972 till now.</li></ul>
<p><b>Natovenator polydontus</b></p> 	<ul style="list-style-type: none"><li>• An artist reconstructed the dinosaur, called Natovenator polydontus, lived about 72 million years ago during the Cretaceous Period.</li><li>• It is part of the dinosaur group called <b>theropods</b></li><li>• It was built like a diving bird with a <b>streamlined body</b>, elongated neck and a long-flattened snout.</li><li>• It was adapted to a semi-aquatic lifestyle in a freshwater ecosystem.</li></ul>

<p><b>Asian tiger mosquito</b></p> 	<ul style="list-style-type: none"> <li>• It is also known as Aedes Albopictus and the forest mosquito.</li> <li>• It is an exotic species that get their "tiger" name from the single white stripe down the centre of their head and back.</li> <li>• It was native to the tropical and subtropical areas of Southeast Asia, later, it spread to many countries in Europe as well.</li> <li>• It usually bites during the daytime and hots many viral pathogens, including the yellow fever virus, Chikungunya fever, dengue fever, Dirofilaria immitis, and Zika virus.</li> </ul>
<p><b>Blyth's tragopan</b></p> 	<ul style="list-style-type: none"> <li>• It is a pheasant also called grey-bellied tragopan.</li> <li>• It is the state bird of Nagaland.</li> <li>• It is found in many different areas including Bhutan, North-east India, Myanmar, South-east Tibet and China.</li> <li>• It is listed as <b>Vulnerable in the IUCN Red list</b> and Schedule in the Indian Wildlife (Protection) Act of 1972.</li> </ul>
<p><b>Meizotropis pellita</b></p> 	<ul style="list-style-type: none"> <li>• It is a medicinal plant commonly known as Patwa.</li> <li>• It is a perennial shrub with restricted distribution that is endemic to Himalayas in Uttarakhand.</li> <li>• It is listed as <b>critically endangered in the IUCN Red list</b>.</li> <li>• The species is threatened by deforestation, habitat fragmentation and forest fires.</li> </ul>
<p><b>Greybellied Wren Babbler</b></p> 	<ul style="list-style-type: none"> <li>• Birdwatchers have discovered a new species of the elusive wren babblers in remote north-eastern Arunachal Pradesh.</li> <li>• They have named it as Lisu wren babbler after the Lisu community of Arunachal Pradesh.</li> <li>• It belongs to songbird species, mostly found in Myanmar with some birds occurring in adjoining China and Thailand.</li> <li>• It is listed as Least Concern in the IUCN Red list.</li> </ul>
<p><b>Badri cow</b></p> 	<ul style="list-style-type: none"> <li>• Its name is derived from the holy shrine of Char Dham at Badrinath.</li> <li>• It is found only in the hilly districts of Uttarakhand and was earlier known as Pahari cow.</li> <li>• It is the <b>first registered cattle breed of Uttarakhand</b> which has been certified by the National Bureau of Animal Genetic Resources (NBAGR).</li> <li>• This breed has strong disease resistance.</li> <li>• It grazes only on the herbs and shrubs available in the mountains, its milk has medicinal contents and high biological value.</li> </ul>
<p><b>Bullock's Heart Tree</b></p> 	<ul style="list-style-type: none"> <li>• It is a tropical tree fruit that received its name due to its resemblance to a bull's heart.</li> <li>• In India it is widely is known as ramphal.</li> <li>• It is tasty as well as nutritional. It is very low in calories and free of fat, sodium, and calcium.</li> <li>• It is also used for its array of medicinal, agricultural, and homesteading uses.</li> </ul>

	<ul style="list-style-type: none"> <li>• Its seeds, leaves, and fruits have insecticidal properties, the leaves are used for tanning leather and to create a black or blue dye, fiber can be obtained from the tree's young twigs.</li> </ul>
<p><b>Dactylorhiza hatagirea</b></p> 	<ul style="list-style-type: none"> <li>• It is <b>commonly known as Salampanja</b></li> <li>• It is a perennial herb inhabiting sub-alpine to alpine regions.</li> <li>• It is extensively used in Ayurveda, Siddha, Unani and other alternative systems of medicine to cure dysentery, gastritis, chronic fever, cough and stomach aches.</li> <li>• Its use as a dietary supplement was found to be beneficial in increasing testosterone levels, resulting in improved sexual desire and arousal.</li> <li>• It is listed as Endangered in the IUCN Red list.</li> </ul>
<p><b>Fritillaria cirrhosa</b></p> 	<ul style="list-style-type: none"> <li>• It is a perennial bulbous herb in the <b>Lily family</b>, also known as Himalayan fritillary.</li> <li>• It is native to China, Nepal, Pakistan, India, Bhutan and Myanmar.</li> <li>• It is used for the treatment of bronchial disorders and pneumonia.</li> <li>• It is also a strong cough suppressant and a source of expectorant drugs in traditional Chinese medicine.</li> <li>• It is listed as <b>vulnerable in the IUCN Red list</b>.</li> </ul>
<p><b>Asian Giant Tortoise</b></p> 	<ul style="list-style-type: none"> <li>• It is the largest tortoise in mainland Asia.</li> <li>• It is found in Bangladesh, India, Indonesia, and Malaysia among other places.</li> <li>• Over-exploitation and unsustainable use for consumption by local communities resulted in the species being pushed to the brink of extinction.</li> <li>• It is listed as <b>Critically Endangered in the IUCN Red list</b> and Schedule IV in the Indian Wildlife (Protection) Act of 1972.</li> </ul>

## Zombie Virus

- French scientists have reportedly revived a 48,500-year-old zombie virus Pandoravirus yedoma buried under a frozen lake in Russia.
  - This breaks the previous record of a 30,000-year-old virus identified in Siberia by the scientists in 2013.
  - The new strain is one of 13 viruses, each of which possesses its own genome.

## About Zombie Virus

- It is the term given to a virus that is frozen in ice and therefore dormant.
- The virus emerged due to the thawing of permafrost as the global temperature is rising.
- These viruses have the potential to be infectious and hence pose a health danger.
- It is believed that pandemics will become more common in the future as melting permafrost releases long-dormant viruses.
- The report says the new thawed virus may be only the tip of the epidemiological iceberg as more hibernating viruses are yet to be discovered.
- More research is needed to assess the level of infectiousness of these unknown viruses when exposed to light, heat, oxygen, and other outside environmental variables.

## India's 1<sup>st</sup> Private Space Vehicle Launchpad

- Chennai-based space tech startup Agnikul Cosmos has launched **India's 1<sup>st</sup> private launchpad** at the Satish Dhawan Space Centre (SDSC) in Sriharikota.
  - It is executed in support with ISRO and IN-SPACe (Indian National Space Promotion and Authorization Center)

## About Agnikul's Launchpad Facility

- The facility has two parts - **Agnikul launchpad** and **Agnikul mission control centre**.
- The launchpad has been designed to accommodate and support liquid stage-controlled launches.
- It plans to launch its **Agnibaan rocket** from this launchpad.
- It has the ability to, as necessary, share data and other critical information with ISRO's Mission Control Center.

## Agnibaan

- It is Agnikul's highly customizable, two-stage launch vehicle, capable of taking up to 100 kg payload to low Earth orbits (LEOs).
- It will be powered by the company's 3D-printed Agnilet engines.
  - Agnilet is the world's 1<sup>st</sup> single-piece 3-D printed **semi-cryogenic** engine fully designed and manufactured in India.
  - It uses a mixture of liquid kerosene and supercold liquid oxygen to propel itself.

## SpaceTech Innovation Network (SpIN)

ISRO has signed an MoU with Social Alpha to launch **SpaceTech Innovation Network (SpIN)**.

## About SpIN

- It is India's 1st dedicated **platform** for innovation, curation, and venture development for the burgeoning space entrepreneurial ecosystem.
- It will primarily focus on facilitating space tech entrepreneurs in 3 distinct innovation categories:



## Significance of SpIN

- It will further accelerate India's recent space reform policies.
- It will work towards identifying and unleashing the market potential of the most promising space technology innovators and entrepreneurs in India.
- It will create a level playing field for various stakeholders to collaborate and contribute to the space ecosystem in the country.

**SpIN innovation challenge:** In line with the partnership announcement, SpIN has launched its first innovation challenge.

### Areas of innovation:

- Early-stage start-ups for developing solutions in areas of maritime and land transportation, urbanisation, mapping, and surveying, disaster management, food security, sustainable agriculture, environmental monitoring, and natural resources management, among others are encouraged to apply.
- The selected start-ups and innovators will be able to access both Social Alpha's and ISRO's infrastructure and resources as per the prevailing guidelines

### Social Alpha

- It is a multistage innovation curation and venture development platform for science & technology start-ups.
- It addresses the most pressing social, economic and environmental challenges through the power of entrepreneurship and market-creating innovations.
- Since its inception in 2016, it has supported more than 200 start-ups including 60+ seed investments.

## Elaliite and Elkinstantonite

- Researchers in Canada have discovered two new minerals in a meteorite named El Ali that landed in Somalia in 2020.
- The newly discovered minerals have been named elaliite, and elkinstantonite.
- The two minerals had iron-phosphorus-oxygen compositions.
- This discovery could give scientists some important clues as to the formation of asteroids and meteorites.
- The name elaliite comes from the rock's location of El Ali town.
- Elkinstantonite, pays tribute to Lindy Elkins-Tanton, the principal investigator of Nasa's upcoming Psyche mission that aims to send a spacecraft to a metal-rich asteroid.

### Meteoroids, Meteors and Meteorite

- Meteoroids are objects in space that range in size from dust grains to small asteroids. Think of them as space rocks.

- When meteoroids enter Earth’s atmosphere or that of another planet, at high speed and burn up, the fireballs or shooting stars are called meteors.
- When a meteoroid survives a trip through the atmosphere and hits the ground, it’s called a meteorite.

## ChatGPT

- OpenAI has introduced a new chatbot called ChatGPT.
- GPT stands for **Generative Pre-trained Transformer 3**.
  - This is a kind of computer language model that relies on deep learning techniques to produce human-like text based on inputs.

### About ChatGPT

- It is a **prototype dialogue-based AI chatbot** capable of understanding natural human language and generating impressively detailed human-like written text.
- It will answer queries just like a human would and can also admit its mistakes, challenge incorrect premises, and reject inappropriate requests.
- The model is trained to predict what will come next, and that’s why one can technically have a conversation with ChatGPT
- It is based on language learning models (LLM).

### Usage of ChatGPT

- It can be used in digital marketing, online content creation, answering customer service questions or even to help debug code.
- It can respond to a large range of questions while imitating human speaking styles.

### Limitations of ChatGPT

- It gives answers which are grammatically correct and read well though these lack context and substance.
- It occasionally produces inaccurate information and that its knowledge is restricted to global events that occurred before 2021.
- AI technology can also perpetuate societal biases like those around race, gender, and culture.

### OpenAI

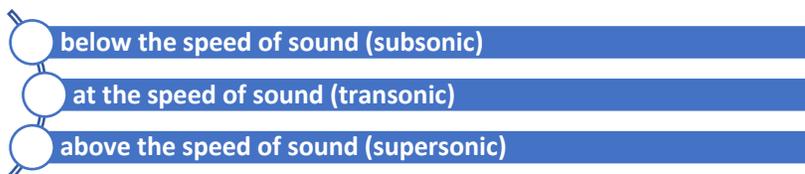
- It is a research institute and company that focuses on developing artificial intelligence technology in a responsible and safe way.
- It was founded in 2015 by a group of entrepreneurs and researchers, including Elon Musk, Sam Altman, and Greg Brockman.

## Trisonic Wind Tunnel

The new trisonic wind tunnel was inaugurated by successfully conducting the first blow-down test at the Vikram Sarabhai Space Center (VSSC).

### About Trisonic Wind Tunnel

- Trisonic refers to the tunnel’s capability to test in 3 speed regimes -



- It is a system to aid aerodynamic design of **rockets and re-entry spacecrafts** by characterising a scaled model by evaluating forces, moments, load distribution, unsteady pressures, acoustic levels etc.
- In a blow down test, stored gases are released and blown through the tunnel's test section, simulating flight conditions.
- The tunnel can simulate flight conditions from 0.2 times the speed of sound (68 m/s) to four times the speed of sound (1,360 m/s).

### HAKUTO-R Mission

Japanese aerospace startup ispace Inc has launched its private lander M1 to the Moon on a SpaceX Falcon 9 rocket as part of its HAKUTO-R mission. It is Japan's 1<sup>st</sup>-ever lunar mission and the 1<sup>st</sup> of its kind by a private company.

#### About HAKUTO-R Mission

- The M1 lander will deploy two robotic rovers (two-wheeled rover made by Japan's JAXA space agency and a four-wheeled Rover made by the UAE known as the Explorer Rashid).
- The name HAKUTO-R refers to the white rabbit that Japanese folklore suggests lives on the Moon.
- Its purpose is to search for water deposits before touching down in **Atlas Crater**, which is located in the near side of the northeastern part of the Moon.
- The mission is taking a low energy route to the Moon and is scheduled to arrive around April 2023.

#### Significance of This Mission

- If the landing is successful, it will also become the 1<sup>st</sup> commercial spacecraft ever to make a controlled landing on the moon.
  - The national space agencies of the United States, Russia and China have achieved soft landings on the Moon.
- Mission success would also represent a milestone in space cooperation between Japan and the US at a time when China is becoming increasingly competitive.

{For more about Rashid Rover, refer The Recitals - September 2022}

### Lecanemab

- The drug, lecanemab was tested on patients with early Alzheimer.
- It is jointly developed by the pharma companies Biogen and Eisai.
- It belongs to a class of drugs called **monoclonal antibodies**.
  - These antibody-mediated drugs target beta amyloid, the protein deposition that is seen in patients with Alzheimer's disease and disrupts cell's function.
- It appears to have shown modest effects in early dementia both via clinical improvements and reduction in amyloid plaques.

#### Alzheimer's Disease

- It is a progressive neurologic disorder that causes the brain to shrink and brain cells to die.
- It is the most common cause of dementia, a continuous decline in thinking, behavioral and social skills that affects a person's ability to function independently.
- Out of the approximately 50 million people worldwide with dementia, between 60% -70% are estimated to have Alzheimer's disease.

- The early signs of the disease include forgetting recent events or conversations.
- There is no treatment that cures Alzheimer's disease or alters the disease process in the brain.
- According to the World Alzheimer's Report, 2021 in India, only 1 in 10 people with dementia receive any diagnosis, treatment or care for the disease.

## Aeronomy

The Union Minister of State for Science & Technology and Space informed the Parliament that ISRO has taken initiatives for feasibility studies on missions to Venus as well as Aeronomy.

### About Aeronomy

- It is the scientific study of the upper atmospheric regions of the Earth and other solar system bodies.
- It includes the distribution of temperature, density, and chemical constituents, and the chemical reactions that occur.
- It covers the chemistry, dynamics and energy balance of both neutral and charged particles.
- Studies of aurora, airglow, the ionosphere, Van Allen radiation belts, cosmic rays, and radiative and photochemical phenomena also come under the heading of aeronomy.

### Venus Mission

- ISRO is planning to launch the Venus mission (Shukrayaan) by December 2024.
- It aims to study Venus' atmosphere, which is toxic and corrosive in nature as clouds of **sulfuric acid** cover the planet.
- Venus is the 2<sup>nd</sup> planet from the Sun and 6<sup>th</sup> in the solar system in size and mass.
- Every planet in our solar system except for Venus and Uranus rotates counter-clockwise as seen from above the North Pole
  - Venus rotates clockwise while Uranus rolls on its side as it orbits the Sun
- It has been called Earth's twin because of the similarities in their mass, size, and density.

## Forabot

- North Carolina State University has developed and demonstrated a robot named Forabot which is capable of sorting, manipulating and identifying microscopic marine fossils.
  - Such fossils are key to understanding the world's oceans and climate of today and in the prehistoric past.
- The robot's AI uses images to identify the type of foram and sort it accordingly.
  - Forams also called Foraminifera, are very simple micro-organisms that secrete a tiny shell, a little longer than a millimetre.
  - Organisms have existed in our oceans for more than 100 million years. When forams die, they leave behind their shells.
- It has an accuracy rate of 79% for identifying forams, which is better than most trained humans.
- It is capable of identifying six different types of foram and processing 27 forams per hour.

## Geminids Meteor Shower

Sky-enthusiasts all over the world captured the Geminids meteor shower, an annual spectacle which peaks each year in mid-December.

### About Geminids Meteor Shower

- Its name comes from the constellation Gemini, from whose location in the sky the meteor shower appears to originate.
  - The constellation is not the source of the meteors.
- It is unique because unlike most meteor showers, they originate not from a comet, but from an asteroid, the **3200 Phaethon**.
- The constellation for which a meteor shower is named only serves to aid viewers in determining which shower they are viewing on a given night.
- If their peak coincides with the new moon, and if the weather is clear, the Geminids can produce approximately 100-150 meteors per hour for viewing.

### About 3200 Phaethon

- It was discovered in October 1983.
- It takes 1.4 years to complete one round of the Sun.
- As it moves close to the Sun while orbiting it, the rocks on its surface heat up and break off.
  - When the Earth passes through the trail of this debris, the Geminids are caused.

### What Causes Meteor Showers?

- Meteors come from leftover comet particles and bits from asteroids.
- As they enter the Earth's atmosphere at high speed, they burn up, creating a spectacular shower.

### Gemini constellation

- It is located northeast of the constellation Orion and between Taurus and Cancer constellations.
- It is one of the 88 modern constellations defined by the International Astronomical Union (IAU).

### Ryugu

- According to a new study, a sample of a space rock called Ryugu that returned to Earth almost two years ago may hold the answers to the origin of the planet.
- A Japanese spacecraft, Hayabusa2, reached Earth in December 2020 from asteroid, Ryugu, with soil samples.

### Key Finding of the Study

- Roughly 5% of materials that assembled to form Earth more than 4.5 billion years ago could have come from space rocks similar to near-Earth asteroid Ryugu.
- These asteroid samples represent the 1<sup>st</sup> solids to be formed in the solar system. This means they could be the building blocks of Earth.
- It has copper and zinc isotope ratios similar to a very rare group of meteorites that are likely the **most primitive** (ones with the closest composition to the Sun).
  - They are primitive because they likely formed in the outer solar system, where volatile elements are preserved. In contrast, materials created closer to the Sun may have lost a part of their volatile inventory due to evaporation.

### About Ryugu

- It is a primitive carbonaceous near-Earth asteroid, located about 300 million kilometers from Earth.
- It is charting between the spatial boundaries of Mars and Earth.
- It orbits the Sun once every 16 months.
- Astronomy experts tagged Ryugu with a primitive C-type classification.

- This asteroid class is usually full of various types of minerals and rocks.
- C-type asteroids have black appearance, with large carbon quantities.

### Hayabusa2

- It is an asteroid sample-return mission operated by the Japanese space agency, JAXA.
- It was launched in December 2014, with the goal of collecting samples from the asteroid Ryugu.
- It carried multiple science payloads that investigated the asteroid surface to inform about the environmental and geological context of the samples collected.

## Surface Water and Ocean Topography (SWOT)

NASA and the French space agency CNES) have jointly launched the Surface Water and Ocean Topography (SWOT) spacecraft.

### About Surface Water and Ocean Topography (SWOT)

- It is a satellite altimeter jointly developed and operated by NASA and CNES in partnership with the space agencies of the UK and Canada.
- It will measure the height of water in freshwater bodies and the ocean on more than 90% of Earth's surface.
- It will cover the entire Earth's surface between **78° south and 78° north latitude** at least once every 21 days, sending back about one terabyte of unprocessed data per day.
- The scientific heart of the spacecraft is an innovative instrument called the **Ka-band radar interferometer (KaRIn)**, which marks a major technological advance.
  - KaRIn bounces radar pulses off the water's surface and receives the return signal using two antennas on either side of the spacecraft.

### Significance of SWOT

- It will provide vital information, given the urgent challenges posed by climate change and sea level rise.
- It will also help researchers, policymakers, and resource managers better assess and plan for things, including floods and droughts.
- This information will provide insights into how the ocean influences climate change; how a warming world affects lakes, rivers, and reservoirs; and how communities can better prepare for disasters.

## Deepfake Technology

- The Cyberspace Administration of China, the country's cyberspace watchdog, is rolling out new regulations to restrict the use of deep synthesis technology and curb disinformation.
  - Deep synthesis is defined as the use of technologies including deep learning and augmented reality to generate text, images, audio/video and create virtual scenes.
  - One of the most infamous applications of the technology is the deepfake.

### About Deepfake

- It is a type of **synthetic media** in which a person in an already-existing video or image is replaced with another person.
- It manipulates the audio/video, which has the propensity to deceive, using machine learning and artificial intelligence.
- It makes a fake version of original or real audio-visual content by superimposing new audio or image over an existing media file.

## Misuse Of Deep Fake Technology

- In the era of the threat of fake news, it poses a threat to the security of cyber systems and the validity of online information.
- In the phishing efforts it would make it more challenging for people to recognize a hoax.
- In any nation, it can be used to sabotage democratic procedures like elections.
- It can be used to generate phone pornographic videos.
- Any genuine evidence of a crime can be easily discounted as false.

## What Are Countries Doing to Combat Deepfakes?

- **European Union** has an updated Code of Practice to stop the spread of disinformation through deepfakes.
- **United States** in July 2021, introduced the bipartisan Deepfake Task Force Act to assist the Department of Homeland Security (DHS) to counter deepfake technology.
- India - Currently, there are no legal rules against using deepfake technology.
  - However, specific laws can be addressed for misusing the tech, which include Copyright violation, Defamation, etc.

## Way Forward

- As a consumer, we must be able to understand, translate and use the information we receive.
- Before the issues related to deep fakes can be resolved, media literacy has to be improved.
- There is also a need for easy-to-use and accessible technology solutions to detect deep fakes, authenticate media and enhance authoritative sources.

## Base Editing

A new gene editing technology called **base editing** was used to modify immune cells and successfully treat a teen with T-cell acute lymphoblastic leukaemia (T-ALL).

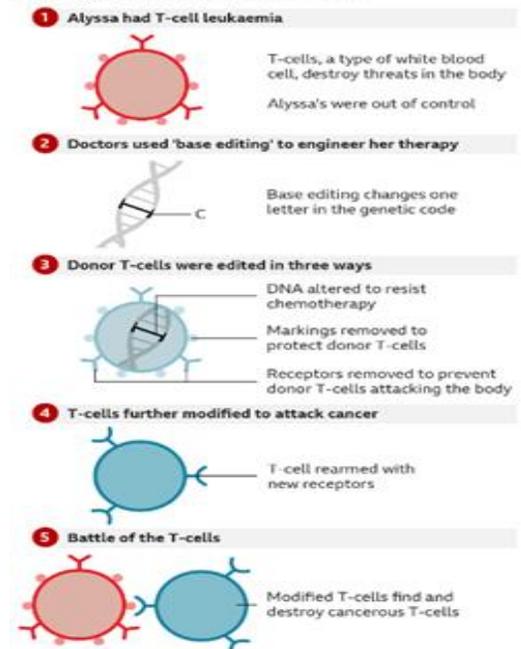
### About Base Editing

- It is a modification of chimeric antigen receptor, or (CAR) T-cell therapy.
- Team of doctors and scientists used this tool to engineer a new type of T-cell that was capable of hunting down and killing cancerous T-cells.
- It allows scientists to zoom to a precise part of the genetic code and then alter the molecular structure of **just one base**, converting it into another and changing the genetic instructions.

### About T-ALL

- It affects the stem cells in the bone marrow that produce a particular kind of white blood cells (WBC) called T lymphocytes (T cells).
  - These cells provide a person immunity by killing cells carrying infections, activating other immune cells, and regulating the immune response.
- While it is found in both children and adults, T-ALL decreases with age.

### How does the treatment work?



### About T-Cell

- T (thymus) cells are types of white blood cells.
- They are part of the immune system and develop from stem cells in the bone marrow.
- They help protect the body from infection and may help fight cancer.
- It is also called T lymphocyte and thymocyte.

### TVS-2M Nuclear Fuel

Russian state-owned nuclear energy corporation, Rosatom, has offered a more advanced fuel option, TVS-2M nuclear fuel to Kudankulam Nuclear Power Plant.

#### About TVS-2M Nuclear Fuel

- It contains gadolinium-oxide which is mixed with U-235 enrichments.
- The core does not contain BARs (Burnable Absorbers Rods).
- It has increased uranium capacity - one TVS-2M assembly contains 7.6% more fuel material as compared to the earlier fuel bundles.
- This fuel has an 18-month fuel cycle, meaning that the reactor must be stopped for fresh fuel loading every one-and-a-half year.
- Operation in longer fuel cycles enhances the economic efficiency of a plant, as reactors must undergo stoppage and refueling less frequently.

### Gelbots

Scientists from John Hopkins University built a soft robot named Gelbots.

#### About Gelbots

- It is made out of **gelatin** and created by 3D printing.
- It **shrinks or swells** depending on the variation in the temperature of its surroundings.
  - This causes the robot to move in a particular direction without relying on a power source to facilitate its movement.
- It can be strategically manipulated to move robots forward and backwards on flat surfaces or to have them crawl in certain directions with an undulating, wave-like motion.

#### Potential Application Areas of Gelbots

- It can be used to create smart structures, and also can be used for moving on surfaces through the human body to deliver targeted medicines.
- It can be deployed as marine robots, patrolling and monitoring the ocean's surface.
- It can be trained to crawl in response to variations in human biomarkers and biochemicals.

### Uncontrolled Re-entries of Satellites

More than 140 experts and dignitaries have signed an open letter published by the **Outer Space Institute (OSI)** calling for both national and multilateral efforts to restrict uncontrolled re-entries.

#### About Uncontrolled Re-entry

- In an uncontrolled re-entry, the rocket stage simply falls.
- Its path down is determined by its shape, angle of descent, air currents and other characteristics. It will also disintegrate as it falls.

- Most rocket parts have landed in oceans principally because earth's surface has more water than land. But many have dropped on land as well.

### Examples of Uncontrolled Re-entry

- Russian rocket in 2018 and China's Long March 5B rockets in 2020 and 2022 striking parts of Indonesia, Peru, India and Ivory Coast, among others.
- Parts of a SpaceX Falcon 9 that fell down in Indonesia in 2016 included two refrigerator-sized fuel tanks.
- In October 2022, ISRO's RISAT-2 satellite made an uncontrolled re-entry in the Indian Ocean near Jakarta.

### Concerns About the Re-entries

- As the smaller pieces fan out, the potential radius of impact will increase on the ground.
- Some pieces burn up entirely while others don't. But because of the speed at which they're travelling, debris can be deadly.
- If re-entering stages still hold fuel, atmospheric and terrestrial chemical contamination is another risk.
- A 2021 report of the International Space Safety Foundation said, an impact anywhere on an airliner with debris of mass above 300 grams would produce a catastrophic failure, meaning all people on board would be killed.

### International Regulations Related to uncontrolled Re-entry

- There is no international binding agreement to ensure rocket stages always perform controlled re-entries nor on the technologies with which to do so.
- The Liability Convention, 1972 requires countries to pay for damages, not prevent them.

## Sand Battery

Finland has installed the world's 1<sup>st</sup> fully working "sand battery" in its town.

### About Sand Battery

- It is a high temperature thermal energy storage that uses sand or sand-like materials as its storage medium. It stores energy in sand as heat.
- Its main purpose is to work as a high-power and high-capacity reservoir for excess wind and solar energy.
- It can store heat at approximately 500 °C, retaining it for months in order to keep homes warm in winter.
- It helps to upscale renewables production by ensuring there's always a way to benefit from clean energy, even if the surplus is massive.

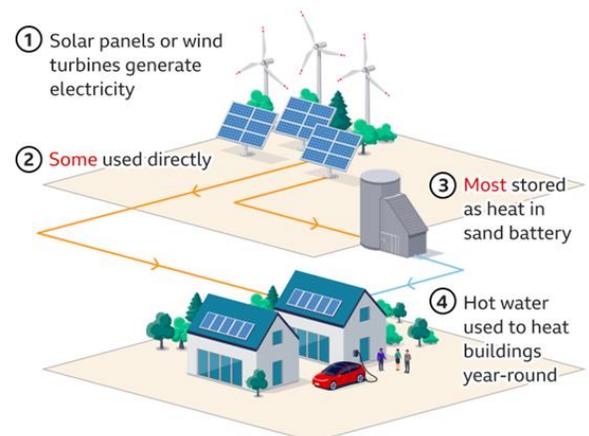
### Why Do We Use Sand?

- Many solid materials, such as sand, can be heated to temperatures well above the boiling point of water.
- Sand-based heat storages can store several times the amount of energy that can be stored in a water tank of a similar size.
- It saves space and it allows versatile use in many industrial applications.

### Could the Sand Battery Replace Conventional Batteries?

- Currently, most industrial-scale batteries used for storing electricity from intermittent renewable energy sources are made out of lithium.
  - They are bulky and expensive and do not cope well with large amounts of excess power.

### How sand batteries work



- Sand batteries, on the other hand, are a low-cost solution that do not require new, rare materials, and can withstand significant power increases.
- It can also quickly store high surges of energy from renewable sources, maximizing efficiency in the system.

### **GNB1 Encephalopathy**

Researchers are studying a rare genetic brain disease called GNB1 Encephalopathy and trying to develop a drug to treat it effectively.

#### **About GNB1 Encephalopathy**

- It is a rare genetic brain disease caused due to mutations in the GNB1 gene.
- This genetic disorder affects individuals in the foetus stage.
- Early symptoms are delayed physical and mental development, intellectual disabilities, epilepsy, movement problems and frequent epileptic seizures.
- Till now less than 100 cases of GNB1 Encephalopathy have been recorded worldwide.
- However, the actual number is probably higher since diagnosis is not widely available due to the requirement of sophisticated and expensive procedures.

### **ROUGE v/s BLEU**

- **Recall-Oriented Understudy for Gisting Evaluation (ROUGE)**
  - It is a set of metrics and a software package.
  - It specifically designed for evaluating automatic summarization, but that can be also used for machine translation.
- **Bilingual Evaluation Understudy (BLEU)**
  - It is a score for comparing a candidate translation of text to one or more reference translations.
  - It can also be used to evaluate text generated for a suite of natural language processing tasks.

### **SedaDNA**

- Sedimentary ancient DNA (sedaDNA) is an emerging tool in the field of paleoecology.
- It refers to ancient environmental DNA that can be directly extracted from ancient sediment samples.
- It has proven to be a complementary approach to the use of pollen and macroremains for investigating past community changes.

### **Neuralink**

- It is a device that will be surgically implanted in the brain and with it we will be able to communicate with and control machines.
- It will also help in studying the electrical signals in the brain and arrive at solutions that help in curing various medical problems.

### **Orionids, Geminids, Taurid, Leonid**

- Orionids is an annual meteor shower, originates from Halley's Comet.
- Geminids is also a meteor shower, comes from the constellation Gemini.

- It is unique because unlike most meteor showers, they originate not from a comet, but from an asteroid, the 3200 Phaethon.
- Taurids is an annual meteor shower. It is actually two separate showers, Southern Taurids originated from Comet Encke, Northern Taurids originated from the asteroid 2004 TG10.
- **Leonid** is an annual meteor shower originates from a small comet called 55P/Tempel-Tuttle in the constellation Leo.

### **Tidal Disruption Event (TDE)**

- The astronomical phenomenon of the destruction of a star by a black hole is formally called a tidal disruption event (TDE).
- It occurs when a star comes close enough to a supermassive black hole to be pulled apart by the black hole's tidal force.
- This event is crucial and useful phenomena to detect and predict the mass of supermassive black holes in quiescent galaxies.

### **Government Test House**

- It is a subordinate office under the administrative control of Department of Consumer Affairs.
- It is a premier Scientific Institution of the Country, established in 1912 at Alipore in Kolkata.
- It offers services for testing and evaluation of materials, products, equipment's, modules, systems and sub-systems in all branches of science & technology.

### **'Dark Patterns' in Internet**

- These are unethical user interface/user experience interactions, designed to mislead or trick users to make them do something they don't want to do.
- It is used by digital platforms to take away a user's right to full information about the services they are using, and reduce their control over their browsing experience.
- It endangers the experience of Internet users and make them more vulnerable to financial and data exploitation by Big Tech firms.

## Hornbill Festival

- The Vice President inaugurated the 23rd edition of Hornbill Festival at Naga Heritage Village, Kisama in Nagaland.
- The Vice President, was felicitated with **Tsiiphie** (traditional Naga headgear) & **Amula kaxa** (Naga shawl) at the opening ceremony.
- The Hornbill Festival also called the 'Festival of Festivals', is a celebration held every year from 1 to 10 December, in Nagaland.
- The 10-day festival, which also coincides with the Statehood Day of Nagaland, is an annual tourism promotional event to showcase Nagaland's rich cultural heritage in all its ethnicity, and diversity.
- Nagaland attained statehood with the enactment of the State of Nagaland Act in 1962 by Parliament and the state of Nagaland was formally inaugurated on December 1, 1963.
- The festival is a tribute to the great Hornbill, which is the most admired and revered bird for the Nagas for its qualities of alertness and glory.
- The majestic bird is closely identified with the social and cultural life of the Nagas as reflected in tribal folklore, dances and songs.

## Kochi-Muziris Biennale

The fifth edition of the Kochi-Muziris Biennale recently opened, with works of over 90 artists from across the globe in varied media.

### Biennale

- It is an international large-scale showcase of art that takes place every two years at a particular site.
- Biennales are usually **non-commercial enterprises** – unlike art fairs – that centre around a curatorial theme.
- One of the most prestigious and oldest biennales in the world, the **Venice Biennale** was established through a resolution by the city council in 1893 to celebrate national artistic talent.
- With its rising popularity, the 1900s saw the emergence of Biennales across the world, with Bial de São Paulo being instituted as the first non-European biennial in 1951.
- In 2009, a global **Biennale Foundation** was established with an aim to create a platform for dialogue, networking, and knowledge sharing among contemporary art biennials around the world. It lists a directory of over 200 biennales that are held at present.

### Significance of Art Biennales

- Though most biennales do not allow for direct purchase of art, an invitation and participation in it, is often viewed as a validation of an artist's work, and an acknowledgement that they are being noticed.
- A Biennale participation can open opportunities for future museum exhibitions, gallery representation and acquisitions.
- Additionally, biennales, often named after the host city, become a reason for local pride, promoting cultural tourism and generating revenue through visitors.

## Kochi-Muziris Biennale

- Kochi-Muziris Biennale was founded in 2011 by Kerala-born, Mumbai-based artists Bose Krishnamachari and Riyas Komu.

- The aim was to create a platform that will introduce contemporary, global visual art theory and practice to India.

### Veer Bal Diwas

- From this year onwards December 26 will be celebrated as Veer Bal Diwas to mark the **martyrdom of Guru Gobind Singh's younger sons**, Sahibzada Zorawar Singh and Sahibzada Fateh Singh.
  - Every year Shaheedi Jor Mela or Shaheedi Sabha is observed at Fatehgarh Sahib, which is attended by lakhs of people.

### History Of Martyrdom

- Guru Gobind Singh, founded the Khalsa in 1699 and was raising an army, which the neighbouring hill kings were not comfortable with. The Mughal empire and the hill kings saw the Khalsa as a threat.
- Guru Gobind Singh's four sons -- Ajit Singh, Jujhar Singh, Zorawar Singh and Fateh Singh -- were all part of the Khalsa.
- The kings had fought several battles with the Sikhs in the last decade of the 17th century, but had been unable to dislodge them from Anandpur Sahib.
- Then came the attack of 1704 led by Bilaspur King Bheem Chand and Handuria King Raja Hari Chand.
- They cordoned off Anandpur Sahib with support from the Mughal empire and supplies to Anandpur Sahib were cut off for several months.
- Kings and Muslim Mughal governors reached an agreement with the Sikhs, and swore there would be no war if Guru Gobind Singh left Anandpur Sahib.
- The Sikh Guru agreed to give up the fort for the sake of his people. But Guru Gobind Singh and his followers were attacked near the river Sarsa, at a distance of about 25 kilometres from Anandpur Sahib.
- In the chaos, Guru Gobind Singh's family was separated, scattering in different directions.
- The Guru himself with his two eldest sons, Ajit Singh and Jujhar Singh, moved toward Chamkaur Sahib.
- And in the historic battle of Chamkaur Sahibzada Ajit Singh and Sahibzada Jujhar Singh both sacrificed their lives on December 22.
- Guru Gobind Singh's mother Mata Gujari ji and his other two sons, Zorawar Singh (aged 9) and Fateh Singh (aged 7), were kidnapped by Sarhand's Mughal governor Nawab Wazir Khan.
- The two younger Sahibzade were offered riches and told to convert to Islam. However, they refused to convert or to bow to Wazir Khan.
- After efforts to make them give up their religion failed, Wazir Khan bricked the two boys alive. The same day, Mata Gujari ji died of shock.
- A few years later, Baba Banda Singh Bhadur avenged the execution of the Sahibzade, by attacking and capturing Sarhand.

### Threat to Geoglyphs in Ratnagiri

- Experts and conservationists have raised concerns over the proposed location for a mega oil refinery in Barsu village of Maharashtra's Ratnagiri district. It has been claimed that the refinery might damage prehistoric geoglyphs found in the area.
- The sites are protected by the state archaeology department and the Archaeological Survey of India (ASI).
- In April, these sites in the Konkan region were added to a tentative list of UNESCO's world heritage sites.

- While the UNESCO listing dates these sites to be over 12,000 years old, some experts have claimed that these sites might be 20,000 years.

### Geoglyphs

- Geoglyphs are a **form of prehistoric rock art**, created on the surface of laterite plateaus (Sada in Marathi).
- They are **made by removing a part of the rock surface** through an incision, picking, carving or abrading. They can be in the form of **rock paintings, etchings, cup marks and ring marks**.
- The UNESCO listing mentions Konkani geoglyphs. However, elsewhere, the term **petroglyph** (literally, rock symbol/character) is also used.
- As per the UNESCO listing, petroglyphs and geoglyphs share similarities as both require the skills of removing parts or engraving a symbol on the rock surface.
- Ratnagiri district has more than 1,500 pieces of such art, also called **Katal shilpa**, spread across 70 sites.
- UNESCO's tentative world heritage list mentions seven sites with petroglyphs in Ratnagiri district — Ukshi, Jambharun, Kasheli, Rundhe Tali, Devihsol, Barsu and Devache Gothane, one in Sindhudurg district — Kudopi village, and nine sites at Phansamal in Goa.
- The figures depicted in the geoglyphs include humans and animals such as deer, elephant, tiger, monkey, wild boar, rhinoceros, hippopotamus, cattle, pig, rabbit, and monkey.
- Moreover, they also include a high number of reptilian and amphibian creatures such as tortoises and alligators, aquatic animals such as sharks and sting rays, and birds like peacocks.
- The **largest rock engraving or geoglyph in India** is at **Kasheli** in the Ratnagiri district, which has a large figure of an elephant with dimensions of 18X13 metres.

### Significance of Ratnagiri's Prehistoric Rock Art

- Rock art in India is one of oldest material evidence of the country's early human creativity.
- Ratnagiri's rock art is **evidence of the continued existence of human settlements from the Mesolithic** (middle stone age) to the early historic era.
- Imagery from these sites shows how **people adapted to ephemeral (lasting for a short time) wetlands** in a dry-arid plateau having shallow rock pools, streams and watercourses.
- Thus, discovery of geoglyphs has added to ongoing research on human resilience and adaptation to extreme fluctuations in climates.
- Geoglyphs also show the existence of certain types of fauna (animals) that are no longer present in the region today.
- Geoglyph clusters also are **examples of advanced artistic skills**, showing the evolution of techniques of etching and scooping in rock art.
- Some clusters have one or two standalone figures of larger-than-life scale, while others show multiple figures gathered together, seemingly for a purpose.

### National Archives of India

- National Archives of India (NAI) shared that it does not have records of 1962, 1965, and 1971 wars, or even of the Green Revolution.
- NAI functions under the **Ministry of Culture** and is the **storehouse of all non-current government records**, holding them for the use of administrators and scholars.
- Originally established as the **Imperial Record Department** in 1891 in Calcutta, the capital of British India, the NAI is now located in Delhi.

- It keeps and conserves records of the government and its organisations only, and **does not receive classified documents**.
- Holdings in NAI are in a regular series starting from the year 1748. The languages of the records include English, Arabic, Hindi, Persian, Sanskrit and Urdu.
- NAI has also made efforts to make available all the records digitally — on the newly created **Abhilekh Patal portal**. However, it's a work in progress and the entire holdings haven't been digitised so far.
- As per the **Public Records Act, 1993**, various central ministries and departments are supposed to transfer records more than 25 years old to the NAI, unless they pertain to classified information.

### Concerns

- However, it is up to the respective ministries and departments to decide what is classified information, which leads to **subjective opinions**.
- Various ministries and administrations come up with their own definitions of what is classified and what is non-current.
- **Opacity and lack of accessibility** are issues regularly faced by researchers at the archives, irrespective of the administrations in power.
- There are in all 151 ministries and departments, and the NAI has only records of 64 agencies, including 36 ministries and departments.

### Srimukhalingam Temple

- Srimukhalingam temple administration has urged the Archaeological Survey of India (ASI) to get the temple included in the UNESCO's list of World Heritage Sites in order to get international recognition.
- Srimukhalingam which was also known as Kalinganagaram was the capital of the early Eastern Ganga Dynasty.
- The temple built in the **Kalinga architectural style**, is located by the **Vamsadhara River** and is dedicated to lord Srimukha Lingeswara (**a form of Shiva**).
- **Constructed in the 9th century CE** by kings of the Eastern Ganga Dynasty, it contains exquisite sculptures from that period.

### Kumbhalgarh Fort

- The Sherpas of the G20 countries and invitees from countries and international organisations recently visited the famous Kumbhalgarh Fort in Udaipur, which is a UNESCO heritage site.
- Kumbhalgarh is the second most important fortress after Chittorgarh in the Mewar region. The fort was built in the 15th century AD by Rana Kumbha.
- It has the 2nd-longest wall of the world after the Great Wall of China.
- The massive fort is 3,600 feet tall and 38 kilometres long, and it surrounds the city of Udaipur
- It contains seven fortified gateways, as well as the Lakhola Tank, the most famous tank within the fort, which was built by Rana Lakha.
- It contains several Hindu and Jain temples, which demonstrate the rulers' religious tolerance and how they patronised the Jains and encouraged their culture in the kingdom.
- Due to a lack of drinking water, its defences were only breached once by the combined armies of the Mughals and Amber.
- The fort has also been designated a UNESCO World Heritage Site as part of the group of Hill Forts of Rajasthan.

- The six hill forts of Rajasthan that have made it to UNESCO's World Heritage List are: Chittorgarh Fort, Kumbhalgarh Fort (Rajsamand), Ranthambore Fort (Sawai Madhopur), Jaisalmer Fort, Amber Fort (Jaipur) and Gagron Fort (Jhalawar).

### J C Bose

- On the 164th birth anniversary of Acharya Jagadish Chandra Bose, Vijnana Bharati and Ministry of Culture, organized an “International conference on the contributions of J C Bose: A Satyagrahi Scientist”.
- The aim of the conference was to provide a voice to the unheard contributions of Acharya Jagadish Chandra Bose in the pre-independence era as a scientist and a freedom fighter.
- J C Bose was a biologist, physicist, botanist and an early writer of science fiction. A crater on the moon has been named in his honour.
- He invented the **crescograph**, a device for measuring the growth of plants.
- Bose made pioneering discoveries in plant physiology. He used his own invention, the crescograph, to measure plant response to various stimuli and proved parallelism between animal and plant tissues
- Bose **discovered wireless communication** and was named the **Father of Radio Science** by the Institute of Electrical and Electronics Engineering.
- He is also considered **the father of Bengali science fiction** and was responsible for the expansion of experimental science in India.
- His books include Response in the Living and Non-Living (1902) and The Nervous Mechanism of Plants (1926).