INDEX

INDEX

Same-Sex Marriage

- Supreme Court of India is currently hearing the case seeking **legal recognition of same sex marriage.**

- While urging the Court to leave the issue to Parliament, the Centre argued that the law - the **Special Marriage Act (SMA) 1954 -** cannot be re-drafted again to allow same-sex marriage.

About The Same-sex Marriage Case?

- Several petitioners have asked the court to recognise the same-sex marriages under the **Special Marriage Act (SMA) 1954.**

  - The Act provides for the conditions relating to solemnization of special marriages **between any two persons.**

- As the case involved an interplay of constitutional rights (of transgender couples) and specific legislative enactments, the court had referred the pleas to a **Constitution Bench**.

What Is Civil Union

- A **civil union** under the Special Marriage Act is a **legally recognized union** between two individuals, regardless of their caste, religion, or nationality.

  - It also refers to the legal status that allows same-sex couples specific rights and responsibilities normally conferred upon married couples.

- This type of union allows couples to have a formal, legally binding relationship without going through the traditional rituals and customs of a religious or cultural marriage ceremony.

- Although a civil union resembles a marriage and brings with it employment, inheritance, property, and parental rights, there are some differences between the two.

  - Religious or cultural beliefs do not play a role in a civil union, whereas they often do in a marriage.

  - In some countries, civil unions are only available to same-sex couples, whereas marriage is available to both same-sex and opposite-sex couples.

  - A civil union may not be recognized by all states or countries, whereas a marriage is generally recognized worldwide.

  - There may be differences in the legal requirements and procedures for entering into a civil union versus a marriage. It may be different in terms of social and cultural significance and legal recognition.

Arguments of Petitioners

- **Marriage is a social status** which is bestowed by law and through which society accepts, respects and validates a couple.

- **Same-sex couples do not enjoy the rights of married couples** including the *right to adopt or have children by surrogacy, automatic rights to inheritance, pension, maintenance and tax benefits*.

- They will not be able to avail of legally accrued benefits of laws such as -

  - **The Transplantation of Human Organs Act**, as it only allows near relatives to object to the use of a deceased's body for therapeutic purposes or organ donation.

  - **Section 80 of the Income Tax Act 1961**, which provides for deduction of certain sums for computing the total income of an assessee, when such sums are paid on behalf of a spouse.

- The SC has repeatedly said that all adults have the **right to marry a person of their choice**.

- **Non-recognition of same-sex marriage violates fundamental rights** under -

  - Articles 14 (right to equality before law),

  - Article 15 (right against discrimination only on grounds of religion, race, caste, sex, place of birth),

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- ○ Article 19 (freedom of speech and expression), and
- ○ Article 21 (protection of life and personal liberty) of the Constitution.

Six Key Arguments of The Centre

- **Religious definitions of marriage:** Various religions have always recognised marriage only between a man and a woman.

- **Legitimate interest of state:** Responding to the argument of the petitioners that the state can have no role in regulating personal relationships, the Centre said that the right to marry is always subject to the statutory regime.

- **The right to privacy:** The right to privacy cannot be extended to marriage. This is because consulting adults want societal acceptance of the relationship by way of marriage.

SC's Previous Judgments on the Issue

- An adult person has the **right to marry a person of their choice under Article 21** [Lata Singh vs State of UP (2006), Shafin Jahan vs Asokan KM (2018), and Laxmibai Chandaragi B vs The State of Karnataka (2021)].
- LGBTQ person's rights are founded on **sound constitutional doctrine** - right to life, privacy, dignity, liberty, and freedom [**KS Puttaswamy vs Union of India (2017)**].
- The choice of whom to partner, the ability to find fulfilment in sexual intimacies and the right not to be subjected to discriminatory behaviour are intrinsic to the constitutional protection of sexual orientation [**Navtej Singh Johar vs UOI (2018)**].

- **Parliament must decide:** There exists a democratic right of people to regulate themselves through their representatives in the Parliament.
  - ○ There are a total **72 categories of genders falling within the LGBTQIA+** community. This would mean several permutations and combinations of marriage and specific problems arising therefrom.

- **Interpreting the law:** The entire architecture of the Special Marriage Act rather than examine a few words like husband, wife, etc., is required.

- **Effect on personal laws:** The personal laws will inevitably be affected even if the Court only looks at the Special Marriage Act.
  - ○ **For example,** under Section 19 of the Special Marriage Act, the parties married lose their right to family property.
  - ○ Although, they will continue to be governed under their personal laws in all other aspects such as divorce, inheritance and adoption.

Views of other Statutory

- **Delhi Commission for Protection of Child Rights (DCPCR):** Same sex couples would make equally good parents as heterosexual parents.

- **National Commission for Protection of Child Rights (NCPCR):** Argued that same sex marriage would violate the provisions of the Juvenile Justice Act 2015, which prohibits a single man (let alone two men) from adopting a girl child.

Aim To Make India Drug-Free By 2047

Aiming to make India drug-free by 2047, the Ministry of Home Affairs (MHA) plans to link recovery and usage of narcotics and banned substances in a particular area to the annual appraisal report of a District Superintendent of Police.

Reasons for Widespread Drug Abuse in India

- **To Escape From Hard Realities Of Life**
  - The disintegration of the old joint family system, decline of old 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 Traditional Methods Of Social Control**
  - The loosening of the traditional methods of social control left an individual vulnerable to the stresses and strains of modern life.

- **Peer 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**
  - 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.

Intensified Crackdown With Aim To Make India Drug-Free By 2047

- **Opium and Cannabis Cultivation Targeted**
  - Opium and cannabis cultivation in area the size of over 89,000 football fields has been destroyed in the past three years.
  - According to NCB, in the past three years, 35,592 acres of poppy cultivation and 82,691 acres of cannabis cultivation has been destroyed across the country.
  - The States where the crops were destroyed are:

- ▪ Arunachal Pradesh, Assam, Manipur, Jharkhand, Madhya Pradesh, Himachal Pradesh, Jammu and Kashmir, Gujarat, Maharashtra, Odisha, Tripura, and Telangana.

- **Fixing Accountability**
  - ○ MHA is planning to link recovery and usage of narcotics and banned substances in a particular area to the *annual appraisal report of a District Superintendent of Police*.
  - ○ This will bring accountability and fix responsibility.

- **Use of Technology**
  - ○ The MHA has constituted a study group to analyse the use of drones in the destruction of illegal crops in remote areas.
  - ○ The NCB also shares satellite images with the affected States.
  - ○ On the **National Narcotics Coordination portal (NCORD),** the source and destination of drugs are highlighted too, and information up to the district levels is maintained.
  - ○ Another database, called **NIDAAN,** has the photographs, fingerprints, court orders, information and details of all suspects and convicts arrested under the Narcotic Drugs and Psychotropic Substances (NDPS) Act so far.
    - ▪ This can be accessed by State and Central law enforcement agencies.

- **Liberal Application of PITNDPS Act**
  - ○ The Ministry is encouraging the liberal application of the *Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act (PITNDPS), 1988*.
    - ▪ Earlier, this act was not being used much.
  - ○ This includes a provision to detain an individual for up to two years without a court's intervention.

- **Tackling The Issue Of Dark Net And Crypto Currency**
  - ○ The use of the 'dark net' and crypto currency in illegal drugs is increasing, and in 2020, 2021 and 2022, NCB investigated 59 such cases.
  - ○ A sub-group on the counter-terrorism portal, **the Multi Agency Centre** (MAC), has been created to share inputs on the use of the dark net and crypto currency for trade in narcotics.

- **Anti-Narcotics Task Forces (ANTF)**
  - ○ All States have created dedicated Anti-Narcotics Task Forces (ANTF). The first ever conference of State ANTFs was held on April 19-20.

- **Destruction of Seized Drugs Through Proper Process**
  - ○ Unless seized drugs were destroyed through proper process, there will be chances of rotation of drugs due to corruption.
  - ○ Recently, the MHA said that the destruction should be held in public.
  - ○ So far, 6.7 lakh kilogrammes of drugs have been burnt by government agencies.

- **Alternate Livelihood Scheme**
  - ○ State governments have also launched alternate livelihood scheme for farmers growing poppy illegally.
  - ○ They are also provided cash incentives to destroy the illegal crops.

Falling Long Term Growth Prospects

- A new research publication by the **World Bank**, titled **Falling Long-Term Growth Prospects**, held that the current decade (2020-2030) could be a lost decade in the making for the world.

- Starting in 1990, productivity surged, incomes rose, and inflation fell. Within a generation, about one out of four developing economies leaped to high-income status. Today nearly all the economic forces that drove economic progress are declining.

- The overlapping crises of the past few years — Covid-19 pandemic, Russia's invasion of Ukraine and the resultant spike in inflation as well as monetary tightening — have ended a span of nearly three decades of sustained economic growth.

- Without a big and broad policy push to rejuvenate it, the global average potential GDP growth rate is expected to fall to a three-decade low of 2.2% a year between now and 2030, down from 2.6% in 2011-21 and 3.5% during the first decade of this century.

Actual GDP growth (percent)

Country group	Period	Growth	Country group	Period	Growth	Country group	Period	Growth
EMDEs	2000-10	6.0	EMDEs	2000-09	5.9	EMDEs	2000-08	6.3
	2011-21	4.4		2010-19	5.1		2011-19	4.9
	2022-24	3.6		2022-24	3.6		2022-24	3.6
MICs	2000-10	6.3	MICs	2000-09	6.1	MICs	2000-08	6.5
	2011-21	4.6		2010-19	5.3		2011-19	5.0
	2022-24	3.6		2022-24	3.6		2022-24	3.6
LICs	2000-10	6.0	LICs	2000-09	5.9	LICs	2000-08	6.0
	2011-21	4.8		2010-19	5.4		2011-19	5.2
	2022-24	4.9		2022-24	4.9		2022-24	4.9

- A broad-based decline in long-term growth prospects hurts the ability of _emerging market and developing economies (EMDEs)_ to combat poverty, tackle climate change, and meet other key development objectives.

Reasons for Slowdown

- The World Bank has looked at a whole set of fundamental drivers that determine economic growth and found that all of them have been losing power. The **six charts** above capture the weakness.

- These fundamental drivers include things like capital accumulation (through investment growth) and labour force growth.

Drivers of output growth

All the fundamental drivers of output growth slowed in the past decade. Improvements in human capital, the growth of the labor force, investment (including because of policy uncertainty) and total factor productivity (including through factor reallocation) all decelerated. These drivers of growth are expected to slow further in the remainder of the current decade.

A. Working-age population

B. TFP growth

C. Investment growth

D. Contributions to labor productivity growth

E. Improvement in human capital indicators

F. Global policy uncertainty

- Another driver is the growth of total factor productivity (which is the part of economic growth that results from more efficient use of inputs and which is often the result of technological changes).

Indian Scenario

- Even though India has also lost its growth momentum over the past two decades, it is and will likely remain a global leader when it comes to growth rates.
- India falls under the South Asia Region (**SAR**), which is expected to be fastest growing among emerging market and developing economies (EMDEs) for the remainder of this decade.
- India accounts for three-fourths of the SAR output. SAR includes countries like Afghanistan, Pakistan, Sri Lanka, Nepal and Bangladesh etc.
- Economic activity in the South Asia region (SAR) rebounded strongly from the recession caused by the COVID-19 pandemic, expanding by 7.9 percent in 2021 after a drop of 4.5 percent in 2020.
- Output in the region is on track to grow by about 6 percent a year between 2022 and 2030, faster than the 2010s annual average of 5.5 percent and only moderately slower than growth in the 2000s.

Recommendations To Boost Potential Global Growth

Increasing Investment

- A major global push for greater investment without undermining fiscal sustainability, could boost potential growth rates by as much as 0.3 percentage point per year.
- Business enabling reforms can be carried out to address issues like high business startup costs, weak property rights and corporate governance, inefficient labor- and product-market policies, and shallow financial sectors.
- Investments aligned with climate goals—such as in transportation and energy, climate-smart agriculture and manufacturing, and land and water systems—can increase long-term growth and economic resilience to natural disasters.

Aligning Monetary And Fiscal Frameworks

- Robust macroeconomic policy frameworks are critical to support investor confidence and can moderate the ups and downs of business cycles.
- They help countries attract investment by giving investor confidence in national institutions, policy making, and currencies.
- At the same time, it is important to prioritize inflation, debt, fiscal prudence, and financial-sector stability.

Cutting Trade Costs

- Trade costs—mostly those associated with shipping, logistics, and regulations—can double the cost of internationally traded goods.
- Countries with the highest shipping and logistics costs could cut their trade costs in half by adopting the trade-facilitation practices of countries with the lowest shipping and logistics costs.
- Moreover, trade costs can be reduced in climate-friendly ways—by removing the current bias toward carbon-intensive goods inherent in many countries' tariff schedules and by eliminating restrictions on access to environmentally friendly goods and services.

Capitalizing On Services

- As international trade in goods has reduced, the services sector has become an increasingly important engine of growth for developing economies.

- Exports of digitally delivered professional services related to information and communications technology climbed to more than 50 percent of total service exports in 2021, up from 40 percent in 2019.
- Developing economies have significant room to grow in this area because of their limited use of such technology in everyday interactions.
- This requires a renewed focus on education and skills, particularly language and digital skills.

Increasing Labor-force Participation

- If overall labor-force participation rates, especially among women and older workers, could be increased to match the best ten-year increase on record, this could increase global potential growth rates by 0.2 percentage point on average by 2030.
- Globally, average female labor force participation remains three-quarters that of men, and the gap is even larger in EMDEs.
- In some regions, such as South Asia and the Middle East and North Africa, an increase in female labor-force participation rates to match the EMDE average could boost their potential GDP growth by as much as 1.2 percentage points a year by 2030.

Strengthening Global Cooperation

- From 1990 through the mid-2010s, the global economy growth was significant, partly because of broad-based international cooperation following the breakup of the Soviet Union. That cooperation has since reduced.
- Effective new methods of cooperation—on trade, climate, finance, debt transparency, fragility, health and infrastructure—will be essential if the world is to mobilize the investment that will be needed to achieve sustainable growth and poverty alleviation.

Enemy Property

EDITOR'S CUT

Uttar Pradesh is preparing to speed up its process of identifying and assessing the value of enemy properties located there. This is in response to the Centre's decision to conduct a survey across the country to identify enemy properties for monetization.

Enemy Properties In India

- There are at least 12,611 assets, or enemy property located in India of which 12,485 belong to Pakistani nationals and 126 belong to Chinese citizens. Most of these properties are in Uttar Pradesh, followed by West Bengal and Delhi.

- The CEPI has disposed of enemy properties worth ₹3,407 crore, including 75,283,287 shares (for ₹2,708.9 crore) of 152

Background
- A lot of people migrated to Pakistan post–Indo-Pak Wars of 1965 and 1971 and to China post 1962 war. Their properties and companies left behind were taken over by Government of India under the **Defence of India Act, 1962**. These properties are known as 'enemy properties' and are vested in the **Custodian of Enemy Property for India (CEPI)**.
  - The CEPI operates under the **Ministry of Home Affairs**. The custodian's office is located in Delhi with a branch office in Mumbai, Calcutta and Lucknow.
- Some movable properties too (shares held in companies, jewellery), are categorized as enemy properties.
  - The **Tashkent Declaration, 1966** had a clause which stated that both India and Pakistan would discuss the return of property and assets taken over by them. But Government of Pakistan disposed of all such properties in their country in the year 1971.

companies in 2018-19, 2019-20, 2020-21 and 2021-22, and ₹699.08 crore as revenue receipts, according to the MHA's annual report for 2021-22.

- Besides, gold and silver worth ₹60 lakh listed as enemy property has been disposed of in January 2021 through the Government of India mint in Mumbai.

Enemy Property Act, 1968

- The Act was enacted to provide for the vesting of enemy property in the **CEPI.** The Custodian is responsible for managing and administering enemy property on behalf of the government.

- Enemy Property (Amendment and Validation) Act, 2017 amended the Enemy Property Act, 1968 and the Public Premises (Eviction of Unauthorized Occupants) Act, 1971.

- Amended act stated that the successors of those who migrated to Pakistan and China ceased to have a claim over the properties left behind in India.

Features	Enemy Property Act, 1968	Enemy Property (Amendment & Validation) Act, 2017
'Enemy' Definition	1) It defined an 'enemy' as a country (and its citizens) that committed external aggression against India. 2) It allowed for vesting of enemy properties with the Custodian, after the conflicts with Pakistan and China.	The new definition included: i. **Legal heirs of enemies** even if they are citizens of India or of another country which is not an enemy. ii. Nationals of an enemy country *who subsequently changed their nationality to that of another country*, etc.
Vesting of Property	It allowed for vesting of enemy properties with the Custodian, after the conflicts with Pakistan and China.	• It allows the properties to continue to vest with the custodian on following conditions: → The enemy's death → If the legal heir is an Indian → Enemy changes his nationality to that of another country, etc.
Divestment	Under this act, the central government was allowed to order an enemy property to be divested from the Custodian and returned to the owner or other person.	It allows enemy property to be returned to the owner only if an aggrieved person applies to the government, and the property is found not to be an enemy property.
Transfers by Enemies	It prohibited transfer of enemy property by an enemy if: • It was against public interest, or to avoid vesting property in the Custodian.	It removes the old provision and **prohibits all transfers** by enemies. It also renders transfers that took place before or after the commencement of the 1968 Act as void.
Jurisdiction of courts	It allows civil courts and other authorities from entertaining cases against enemy properties, or against actions of the central government or the Custodian under the Act.	It **bars civil courts** and other authorities from entertaining cases against enemy properties, or against actions of the central government or the Custodian under the Act.
Powers of Custodian	It authorized the Custodian to take measures to preserve enemy property and maintain the enemy and his family if they are in India,	• It permits the custodian to sell, mortgage or lease enemy property. • It allows the custodian to:

from the income derived by the property.	→ Fix and collect rent, license fee, etc. From enemy property, and
	→ Evict unauthorized occupants and remove unauthorized construction from such properties.

Competition (Amendment) Bill Act, 2023

President of India has given assent to the Competition (Amendment) Act 2023, which provides for augmentation of Competition regulation in India.

About Competition Act, 2002
• It was introduced to defend consumer interests from anti-competitive behaviour, foster and sustain market competition, and guarantee other market participants' freedom of trade.
• It replaced the <u>Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act)</u> on the recommendations of the Raghavan committee.
• It laid down the foundation for National Competition Policy (NCP), the Competition Appellate Tribunal, and the **Competition Commission of India (CCI).**
Features
• **Anti-Competitive Agreements:** The act prohibits any agreement between two or more businesses or individuals to preserve market competition and protect consumers' interests.
• **Anti Cartels:** Any arrangement between businesses or individuals that lessens competition would be regarded as illegal.
• **Anti-Abuse of Dominance:** Any business that abuses its dominant position will face consequences.
• **Combination Regulations:** The commission will decide if a <u>merger or acquisition</u> is damaging market competition or not.
• **Informative Nature of this Act:** CCI must be informed about the dealings of the company that are likely to harm market competition before taking any action or signing any agreement to ensure transparency and prevent any misunderstandings between businesses or individuals.

Major Amendments Introduced In Competition (Amendment) Bill, 2023

Existing Law	Proposed Amendment	Anticipated Impact
The duration of the assessment was 210 days from the date of filing of the combination notice by the parties.	The assessment duration has been reduced to 150 days.	It will result in speedy approvals for combinations for a fair and transparent competition.
Section 27 of the Competition Act, 2002, allows the CCI to **impose penalties** as it may deem fit which shall be not more than <u>ten percent of the average of the turnover for the last three preceding financial years,</u> on enterprises or persons for	The Commission will be able to impose penalties based on '**global turnover'**.	It will impact multi-product companies and those with a global presence more significantly than purely domestic players. This could also lead to unfair outcomes and discrimination between

participation in anti-competitive agreements or abuse of a dominant position.		domestic companies and entities with global operations.
As per **section 6,** any person or enterprise, who proposes to enter a combination, shall give notice to the Commission within *30 days of approval of the proposal* relating to merger or amalgamation or execution of any agreement.	The 30 day limit has been replaced with the condition that CCI needs to be intimated *after the approval process or execution of any agreement but before consummation of the combination.*	It will bring flexibility to the timeline for notifying the CCI as it would depend upon the circumstances of the case.
No existing provision related to "**transaction test**".	Transaction test will be introduced in terms of 'value of transaction' as another criterion for notifying combinations. **Deals with transaction value of more than Rs 2,000 crore will require CCI's approval.**	**It will ensure that large-scale transactions do not result in anti-competitive practices in the market and will promote fair competition.**

Extra Mile

Competition Commission of India (CCI)

- It is a statutory & a quasi-judicial body which comes under the **Ministry of Corporate Affairs.**

- It was established in March 2009 under the Competition Act, 2002.

- The Commission consists of a Chairperson and not more than 6 Members appointed by the Central Government.

Recent Add on to The Functions of CCI

- The central government, on the recommendations of the Goods and Services Tax Council, has transferred the functions of National Anti-Profiteering Authority (NAA) to the CCI.

  o I.e., now CCI will examine whether **input tax credits** availed by any registered person or the reduction in the tax rate have actually resulted in a commensurate reduction in the price of the goods or services or both supplied by him.

- **Competition Appellate Tribunal** was a statutory organization to dispose of appeals against any direction issued by the CCI. The government replaced the Competition Appellate Tribunal (COMPAT) with the National Company Law Appellate Tribunal (NCLAT) in 2017.

National Competition Policy (NCP), 2011

- This policy aims to preserve competition, promote efficiency and innovation, build a strong competition culture, achieve policy harmonization, ensure competition in regulated sectors, and establish an institutional mechanism for collaboration between the CCI and sectoral regulators, with the goal of creating a unified national market.

The Forest (Conservation) Amendment Bill 2023

EDITOR'S CUT

The Forest (Conservation) Amendment Bill, 2023 which seeks to amend the Forest (Conservation) Act, 1980 was referred to the Joint Committee of Parliament after its introduction in the Lok Sabha.

Background
• After Independence, vast areas of forest land were designated as **reserved and protected forests**. However, many forested areas were left out, and areas without any standing forests were included in 'forest' lands. • In 1996, the Supreme Court suspended the felling of trees across the country, and ruled that the FC Act would apply to all land parcels that were either recorded as 'forest' or resembled the dictionary meaning of forest. • In June 2022, the government amended the **Forest Conservation Rules** to propose a mechanism to <u>allow developers to raise plantations</u> "over land on which the (FC) Act is not applicable" and to swap such plots against subsequent requirements of compensatory afforestation. *{For more details regarding Forest Conservation Rules 2022 refer The Recitals-July 2022}*

Objective Of Forest (Conservation) Amendment Bill 2023

• <u>Remove ambiguity</u> in the applicability of the provisions of the existing Act.

• Build forest <u>carbon stock</u> by raising plantations and Forest conservation.

• Freeing up land currently locked up as unrecorded forests & Make land available for developers to meet their legal obligation towards **compensatory afforestation**.

Need

New Targets: To achieve Net Zero Emission targets by 2070 and to enhance forest carbon stock.
To Remove ambiguity in the applicability of the provisions of the existing Act: • Before the T.N. Godavarman Thirumulpad vs. Union of India case 1996, the Forest (Conservation) Act only applied to *notified (reserved/protected) forest lands* and *not to revenue (recorded) forest areas.* • However, the Supreme Court's judgment expanded the Act's coverage to <u>forest areas, including those being used for non-forestry purposes.</u> • As a result, authorities were prohibited from changing the land use or allowing any development or utility work. This caused confusion about the Act's applicability to private and non-forest lands, leading to misinterpretation of its provisions.
Fast-tracking of Projects: To develop vital security infrastructures along international borders, strategic and security-related projects of national importance need to be fast-tracked.

Proposed Amendments

Insertion of Preamble
To encompass the country's rich tradition of preserving forests, their bio-diversity and tackling climate change challenges within its ambit.
Land under the Purview of the Act i. The land that has been <u>*declared/ notified as a forest*</u> in accordance with the provisions of the Indian Forest Act, 1927 or *under any other law* for the time being in force. ii. The lands that are not covered under the above category, but <u>*notified as forest*</u> in Government records, as on or after the **25th of October 1980.** It will **not apply** to land changed from <u>*forest use to non-forest use*</u> by any authority authorized by a state/UT on or **before December 12, 1996.**
Restrictions on Forest Activities

Act	Bill

• De-reservation of forest or use of forest land for non-forest purposes. The restrictions may be lifted with the prior approval of the central government. ✓ Non-forest purposes include use of land for cultivating horticultural crops or for any purpose other than reafforestation.	It adds more exempted activities from **non-forest purposes** to this list such as: ✓ Works related to the conservation, management, and development of forest and wildlife. ✓ **Zoos and safaris** under the **Wildlife (Protection) Act, 1972** owned by the government or any authority, in forest areas other than protected areas. ✓ Eco-tourism facilities. ✓ Silvicultural operations (enhancing forest growth). ✓ Any other purposes specified by the central government.

Exempted Land Categories

• Forest land situated alongside a rail line, or a public road maintained by the Government, which provides access to habitation up to a maximum size of 0.10 hectare.

• Forest land situated within **100 kilometers** along international borders or **Line of Control or Line of Actual Control** proposed to be used for construction of strategic linear project of national importance and concerning national security.

• Forest land up to **10 hectares** proposed to be used for construction of **security related infrastructure**.

• Forest land proposed to be used for construction of defence related project or a camp for paramilitary forces or public utility projects, as may be specified by the Central Government (not exceeding five hectares in a Left-Wing Extremism affected area notified by central government).

Power to Issue Directions

The central government is empowered to issue directions to any authority/organization under the Central Government, State Government or Union territory Administration for the implementation of this Act.

Concerns Raised

1. **No Protection for Unrecorded Forest Land**: This diverts away from the Supreme Court's 1996 verdict which had ensured every forest mentioned in government records gets legal protection against deforestation.

• The new bill seeks to limit the applicability of the Act only to forest land recorded by the government. This will affect nearly 28% of land or 197,159 sq km (as per the latest State of Forests Report (SFR 2021)) which is not recorded as 'forest'.

2. **Exemption from Forest Clearance**: Land not covered under the Act can be used to raise plantations and compensate for an equivalent area of diverted forest land. This will incentivize building private land banks of plantations and streamline the forest clearance process. Conservationists consider it as blow to the FC Act as it will result in losing unrecorded forests to plantations and diverting recorded forests for projects. This will further promote commercialization of forests (including notified forests) and cause irreversible disturbance to wildlife.

• Critics argue that plantations are a significant threat to Indian forests as they replace the natural ecosystems, affect soil quality, and particularly threaten the native biodiversity.

3. The terms like 'proposed', 'ecotourism facilities', and 'any other purposes' can be exploited or misused for activities damaging forests and ecosystems in forest lands.

4. **Exemptions**: The bill seeks to exempt security-related infrastructure requiring up to 10 hectares, without defining its scope, silvicultural operations, construction of zoos and wildlife safaris, eco-tourism facilities etc. Clearing of forests without any assessment and mitigation plan will not only threaten the biodiversity but will

also increase the vulnerability of the ecologically and geologically sensitive areas already threatened by unsustainable infrastructure developments and extreme weather events.

5. **Creating Carbon Sinks**: Focus on raising tradeable vertical repositories of carbon can jeopardize the very purpose of the Act to protect and conserve India's forests.

6. **Dependent Communities**: Indigenous and forest communities may have no say on the extensive plantations that are envisaged on land on which they depend as communities.

Extra Judicial Killings

After a recent encounter in the state of Uttar Pradesh, which highlighted the misuse of power by the police, the Supreme Court has declared that extra-judicial killings violate the fundamental right to life as enshrined in the Constitution.

Background

A gangster turned politician named Asad (son of Atiq Ahmed) and his aide Ghulam were recently killed in a police encounter in Jhansi. This has raised a lot of concern about the increasing number of encounter cases every year.

What is Meant by 'Extra Judicial Killing'

- Extra-judicial killings refer to the act of killing a person by the state or its agents without any legal proceedings or justification. It is illegal and violates human rights and the rule of law.

- These killings often occur outside the framework of the law, bypassing due process of law and disregarding the right to a fair trial.

Popular Cases

- **Mathura Rape Case, 1979**- In this case two police officials raped and killed a young orphan girl in police custody. The officials were acquitted by the court.

- **Bhagalpur Blinding Case, 1980**- The police officers in Bihar during 1979-80 started pouring acid into the eyes of the suspects to get information or confessions, this burnt the eyes of the suspects and eventually led to immediate blindness. The police officers involved in this act were convicted by the court and it became the first-ever case in which monetary compensation was granted to the victim.

- **Ishrat Jahan Case, 2004**- In this case, the officers of the Ahmedabad Police Crime Branch and members of the Subsidiary Intelligence Bureau of Ahmedabad are accused of fatally shooting four terrorist suspect people unlawfully in a fake encounter.

- **Hyderabad Rape Case, 2019**- A veterinary doctor was raped and killed by some people. The police killed the accused in an encounter on the spot where the body of the victim was recovered.

Extra Judicial Killing: Violations of following Constitutional and Legal Provisions
Constitutional Provisions
• **Article 14**- No person can be denied equality before the law or the equal protection of the laws within the territory of India on grounds of religion, race, caste, sex or place of birth.
• **Article 21**- Right to life and personal liberty except according to procedure established by law.
• **Article 22**- Right to be informed about the grounds of arrest, to be defended by a legal practitioner.
Legal Provisions
• **Section 50 of CrPC**- Person arrested to be informed of grounds of arrest and of right to bail.

- **Section 56 of CrPC**- A police officer making an arrest without warrant shall, without unnecessary delay present the arrested person before a Magistrate.
- **Section 76 of CrPC**- The police officer executing a warrant of arrest shall without unnecessary delay bring the person arrested before the Court before which he is required by law to produce such person.
- **Section 46 of CrPC**- If a person forcibly resists the endeavour to arrest him, or attempts to evade the arrest, the police officer may use all means necessary to effect the arrest. However, the arresting officer doesn't have the right to cause the death of a person who is not accused of an offence punishable with death or with imprisonment for life.

Available Safeguards for Extra-Judicial Killings

- **Section 96 of IPC-** It allows the right to **private defence** and doesn't consider it an offence.
- **Section 300 of IPC**- It provides that culpable homicide is not a murder if any public official exceeds the power given to him by law and causes death of any person which he believes to be necessary for the maintenance of public order and for securing justice.
- **Section 46 of CrPC**- It allows police officials to use all necessary means to arrest a detainee or to control the situation.
- **Armed Forces Special Powers Act (AFSPA)**- It grants the military powers to arrest, the right to shoot to kill, and to occupy or destroy property in counterinsurgency operations.

Present Status of Extra Judicial Killings

- Encounter killings decreased by 15% from 2016-2017 to March 2022 but the overall cases have increased by 69.5% in the last two years.
- Over the last six years, a total of 813 cases were registered of which Chhattisgarh has the highest number of cases at 259, followed by Uttar Pradesh with 110 and Assam with 79.

Reasons Behind Such Killings

- **Public Support:** Police officers are sometimes supported by the public as the public thinks that court would not be able to provide timely justice. This public backing motivates the police to do encounters.
- **Political Support:** Political leaders for their personal gains support police encounters.
- **Rewards:** For receiving medals, cash incentives and promotions in job, the police officers are motivated to commit extra judicial killings. This includes fake encounters.
- **Work Pressure:** Pressure from society and higher authorities to punish the criminals and reduce the crimes committed instigates the police officials to treat the criminals brutally for extracting information.
- **Punitive Action:** Many in the police department believe that the only way to control the crime and criminals is to torture the criminals so that fear develops in their minds, and they think twice before committing a crime.
- **Heroism:** The media and the public while celebrating these unlawful killings declare the police officials committing such crimes 'heroes of society'. This motivates the police officials to do more and more encounters to stay in limelight.
- **In-efficiency:** Encounters are an easy way for the police to create an image in the eyes of the public that law and order are being maintained in the area as they do not have enough resources to conduct a proper investigation.

Guidelines

By National Human Rights Commission (NHRC)

- 1997 guidelines included registration about encounter deaths, allowing independent investigation and granting compensation to the dependents of the deceased person.

- These guidelines were **modified in 2010 (under then NHRC Chief Justice G P Mathur) and the amended guidelines included provisions for-**
- Registration of an FIR.
- Conducting a magisterial inquiry.
- Reporting all death cases to the NHRC within 48 hours.
- Submitting a second report post three months with postmortem report, inquest report, and enquiry findings.

By Supreme Court

- The SC, in the 2014 case of PUCL vs State of Maharashtra, addressed writ petitions that challenged the authenticity of 99 encounter killings conducted by the Mumbai Police between 1995 and 1997, resulting in the deaths of 135 suspected criminals. As a result, the Supreme Court established a set of 16 guidelines outlining the standard procedure to be adhered to in cases of death during police encounters. Some of the guidelines stipulate the following: ~~Issued in 2014, these guidelines include-~~
  - ➢ Investigating police encounters in death cases.
  - ➢ Mandatory registration of a First Information Report (FIR).
  - ➢ Involving the deceased's next of kin in the inquiry.
  - ➢ Keeping written records of intelligence inputs.
  - ➢ Investigation by an independent agency.
  - ➢ Informing the National Human Rights Commission (NHRC) or the State Human Rights Commission about the incident.
- These guidelines must be strictly followed in all cases of death and grievous injury in police encounters and treated as law under Article 141 of the Constitution of India.
- Article 141 states that a law declared by the Supreme Court shall be binding on all courts within the territory of India.

Supreme Court's Stand

- *D.K. Basu vs. the State of West Bengal* (1996)- The Supreme Court in this case ruled that custodial violence or extra-judicial killings violate the dignity of any human being. It issued several guidelines for the police on how to handle or interrogate the suspects.
- *Sathyavani Ponrai vs. Samuel Raj* (2010)- The court in this case declared that a fair investigation is mandatory under Articles 14, 21 and 39 of the Indian Constitution and that it is an inherent right.
- *Prakash Kadam vs. Ramprasad Vishwanath Gupta* (2011)- The court declared that the police official executing a fake encounter will be granted a death penalty.
- *Om Prakash and Ors. vs. the State of Jharkhand* (2012)- Encounters are "state-sponsored terrorism", and the police is not allowed to kill anybody only because that person is a criminal.

World-Wide Scenario

- **Venezuela**- Around 8,200 extra-judicial killings from the year 2015 to 2017.
- **Syria**- Extra-judicial killings took the lives of around 723 civilians in 2021.
- **Mexico**- From 2014 to 2019, there were around 3,000 complaints against extra-judicial killings.
- **Congo**- Nearly 293 civilians were killed unlawfully in the year 2021.
- **Nigeria**- 13,241 Nigerians killed extra-judicially in last 10 years.

Way Forward

Independent and proper investigations are a must for encounter killings as they affect the credibility of rule of law. There is a need to ensure that rule of law is adhered to by every State authority, and the proper physical

custody of the accused should be assured. Police officials should wait for the court to pronounce its judgement instead of acting themselves.

Finland Joins NATO

- Finland joined the NATO military alliance, dealing a major blow to Russia with a historic realignment of the continent triggered by Moscow's invasion of Ukraine.

- This move marked the end of the concept known as "**Finlandization**".

  o Finlandization refers to the policy of strict neutrality between Moscow and the West that Finland followed during the decades of the Cold War.

  o The principle of neutrality was rooted in the *Agreement of Friendship, Cooperation, and Mutual Assistance* that Finland signed with the USSR in April 1948.

Why Has Finland Joined NATO?

- Russia going to war against Ukraine has made its smaller neighbours crave the powerful military backing the NATO offers.

- Finland and its neighbour Sweden applied for NATO membership soon after the Russian invasion of Ukraine.

  o Any new applicant has to be approved by all existing members of the alliance.

  o While Finland is now the 31st NATO member, Sweden's bid is being held up by Turkey and Hungary.

Significance of Finland Joining NATO

- **For Europe: Major change in Europe's security landscape**

  o Finland had adopted neutrality after its defeat by the Soviets in World War II.

- However, after the Russian invasion of Ukraine, Finland expressed its willingness to join the alliance.
- Hence, Finland's membership represents a major change in Europe's security landscape.

- **For Russia**
  - Finland shares the longest European Union border with Russia.
  - Hence, Finland's membership has ensured NATO's expansion toward Russia.

- **For Finland**
  - While the country is in a better position in terms of security, it is losing out on the significant trade and tourist revenue it was making from Russia, and from its position as the West's gateway to the East.

- **For NATO**
  - The addition of Finland brings in a military trained to repel an attack from Russia.
  - Also, by doubling its border with the country, NATO brings it in a better position to station weapons, including missile launchpads, closer to Russia.

North Atlantic Treaty Organization (NATO)

- Formed in 1949 with the signing of the Washington Treaty, NATO is a security alliance of 31 countries from North America and Europe.
  - Recently, Finland joined the alliance as 31st member.
- NATO's fundamental goal is to safeguard the Allies' freedom and security by political and military means.
- It is a system of collective defence where independent member states agree for mutual defence in case of any attack by external party.
  - Article 5 of the Washington Treaty states that an attack against one Ally is an attack against all.
- Headquarter – Brussels, Belgium.

NATO members, 2023

Functions of NATO
- **Political**
  - NATO promotes democratic values and enables members to consult and cooperate on defense and security-related issues to solve problems, build trust and, in the long run, prevent conflict.
- **Military**
  - NATO is committed to the peaceful resolution of disputes.
  - If diplomatic efforts fail, it has the military power to undertake crisis-management operations.

India and NATO

Should India Join NATO

A. Arguments In Favour Of Joining

- **End of Cold War era**
  - During the Cold War, India's refusal was premised on its non-alignment.
  - This argument has little justification once the Cold War ended during 1989-91.
  - NATO has regular consultations with both Russia and China, despite the gathering tensions with them in recent years.
  - This presents a case for India to join the alliance.

- **To combat terrorism**
  - India has seen many terrorist attacks – 26/11 Mumbai terror attack, Pulwama, Uri attack etc.

- Hence, security analysts suggest that India should join NATO to combat terrorism on a long-term basis.

- **Members of NATO are well-established partners of India**
  - Indian membership would simply mean having regular contact with a military alliance, most of whose members are well-established partners of India.
  - India has military exchanges with many members of NATO — including US, Britain, and France — in bilateral and minilateral formats.
  - Hence, collective engagement with NATO should not be problematic.

- **To contain China**
  - NATO is increasing its footprints in Indian Ocean Region where China is aggressive.
  - NATO membership would help India in containing China.

B. Arguments Against Joining The Alliance

- **Fear of antagonising Russia**
  - Russia has been a long-term ally for India. Even, during the current Ukraine war, India has not openly criticised Russia.
  - India still is heavily dependent on the Russian military equipment. Hence, joining NATO will lead to the deterioration of the relationship.

- **It would hurl India headlong into the Global War on Terror**
  - Joining NATO on full-term basis could become problematic for India as it would drag India into various conflicts around the globe.
    - Collective self-defence article would force India to contribute its troops to support NATO.

- **Sovereignty and Principle of Non-Alignment**
  - Joining the alliance would lead to the establishment of NATO bases on India's territory which may be considered an infringement of our sovereignty.
  - So far, India has not joined any military bloc and remained true to the principle of non-alignment which forms the core of India's foreign policy.

Recent developments in India – NATO engagement

- In August 2022, the external affairs ministry acknowledged that India and NATO are in touch at different levels for quite some time now.
  - India held its first political dialogue with the organisation in Brussels in December, 2019.
  - The second round was to be held in New Delhi in 2020, which was delayed due to the Covid-19 pandemic.
- This is part of India's contacts with various stakeholders on various issues of mutual interests.

Conclusion

- India needs to open a strategic dialogue with NATO and work towards areas of common security concern on a case-by-case basis.
- In this context, a pragmatic engagement with NATO countries must be an important part of India's foreign policy.
- However, it must refrain from becoming a formal member of NATO.

Sudan Crisis

- Fierce fighting broke out between the **Sudan's army** and its paramilitary forces in Khartoum.

- Clashes erupted after weeks of heightened tensions between the **Rapid Support Forces** (RSF), a paramilitary group led by *Mohamed Hamdan Dagalo* and the **Military,** headed by **Lt Gen Abdel Fattah al-Burhan.**

Origin of Sudan Conflict

- **Ouster of President Omar al-Bashir**

  o The roots of the ongoing conflict go back to April 2019, when Sudan's long-serving authoritarian President Omar al-Bashir was overthrown.

  o He was overthrown by military generals following a countrywide uprising against him.

- **Constitution of Sovereignty Council (a power-sharing body)**

  o Despite Bashir's ouster, civilians continued their demonstrations, seeking democratic elections and the establishment of a civilian government.

  o This led to the constitution the Sovereignty Council, a power-sharing body of military officers and civilians.

  o This council would lead Sudan to elections at the end of 2023 and **Abdalla Hamdok** was appointed Prime Minister for the transitional period

- **Military Overthrew Hamdok's Government in Oct' 2021**

  o The new arrangement was short-lived as the military overthrew Hamdok's government in October 2021, and Burhan became de-facto leader of the country.

    ▪ Dagalo, vice-president of the ruling council and Burhan's partner in the military seizure of power, became the second-in-command.

  o Burhan announced that the military would hold power until elections are held in July 2023.

- **Tussle Between Army and RSF**

  o Soon after the 2021 coup, relations between the military and the RSF deteriorated.

    ▪ RSF was formed in 2013, and has been accused of human rights abuses, including the massacre of more than 120 protesters in June 2019.

  o Burhan and Dagalo disagree over how the 10,000-strong RSF should be integrated into the army, and which authority should oversee that process.

- **Ferocious Battle Broke Out**

  o Later, the RSF was redeployed around the country, which the army saw as a provocation and threat.

  o With both sides on edge, a ferocious battle broke out recently.

Countries Having Stake In Sudan

- Owing to its strategic location on the Red Sea, access to the Nile River, the vast swath of gold reserves and agriculture potential, Sudan has long been coveted by outside powers.

- **Neighbouring States in Africa**

  o Sudan's geographic location is crucial as it borders seven countries — Egypt, Ethiopia, Libya, Chad, the Central African Republic, Eritrea and South Sudan.

  o Therefore, many analysts fear that the ongoing war would spill over into neighbouring countries, which are already mired in their own internal conflicts, causing destabilisation of the entire region.

- **United Arab Emirates**
  - Once South Sudan seceded from Sudan, it took away 75 per cent of Khartoum's oil resources with it.
  - In a bid to contain the shrinking economy, Sudan lured foreign investors and one of them was the UAE.
  - The UAE also used the opportunity to expand its influence in the Horn of Africa.
- **Russia**
  - Russia has been wanting to construct a naval base in Port Sudan, located on one of the world's busiest and most contested sea lanes.
- **Israel**
  - Israel seeks support from Sudan in its efforts to encourage other Arab and Muslim nations to form a political and military front against its arch-enemy Iran.
- **Western Countries**
  - The West, including the United States, unanimously celebrated when Bashir was ousted from power in 2019.
  - It hoped that the development would not only bolster the country's transition to democracy but also curtail the growing influence of Russia and China in the region.
- **India**
  - Over the years, India has developed close ties with Sudan and in recent years warmed up to the Government of South Sudan as well.
  - In the last decade, India's investments have been mainly in the energy sector.
  - In 2003, India's ONGC Videsh Ltd (OVL) had invested $750 million to acquire 25 per cent equity held by the Talisman group in the Greater Nile Petroleum Operating Company (GNPOC).

Hakki-Pikki Tribes

More than 181 members of the Hakki Pikki tribal community from Karnataka are stuck in violence-hit Sudan. The government is making efforts to bring them back.

Who Are Hakki Pikki?

- The Hakki Pikki is a tribe that lives in several states in west and south India, especially near forest areas. They are believed to hail originally from the bordering districts of Gujarat and Rajasthan.
- Hakki Pikkis (Hakki in Kannada means 'bird' and Pikki means 'catchers') are a semi-nomadic tribe, traditionally of bird catchers and hunters.

Operation Kaveri
- India has begun 'Operation Kaveri' to bring back its citizens stranded in violence-hit Sudan.
- Currently, India has positioned two Indian Air Force C-130J on standby in Jeddah and the Indian Navy vessel INS Sumedha has reached Port Sudan.
- As many as 3,000 Indians are believed to be stranded in Sudan. A few of them have been evacuated by the French and Saudi Arabian rescue missions, but their exact numbers have not been released.

INS Sumedha's humanitarian mission in Sudan

Between April 13 and April 17, INS Sumedha (IMO: 455627), was present at Port Said, Egypt

INS Sumedha arrived at Port Sudan to evacuate stranded Indians. It is being assisted by two IAF C-130J aircrafts operating from Jeddah.

On April 23, at 21:34 UTC, INS Sumedha, (IMO: 455627) anchored at Port Sudan

On April 25, at 12:05 (UTC), INS Sumedha, (IMO: 455627) left for Jeddah Port

- According to the 2011 census, the Hakki Pikki population in Karnataka is 11,892.
- They are non-vegetarians. The eldest son in a family is not supposed to cut his hair so that he can be identified easily.
- The tribe prefers cross-cousin marriages. According to locals, the usual age of marriage is 18 for women and 22 for men.
- The society is matriarchal, where the groom gives dowry to the bride's family.
- **Clans**
  - The Hakki Pikki move in groups from place to place in search of livelihood.

- o They are divided into four clans, called Gujaratia, Panwar, Kaliwala and Mewaras.
  - o These clans can be equated with castes in the traditional Hindu society.
  - o In the olden days, there was a hierarchy among the clans, with the Gujaratia at the top and the Mewaras at the bottom.
- **Language**
  - o Despite being surrounded by Dravidian languages and living in southern India, the community speaks an Indo-Aryan language.
  - o Their mother tongue was designated **'Vaagri'** by scholars. They communicate in 'Vaagri' at home but speak in Kannada when conducting daily business.
    - ▪ *UNESCO has listed 'Vaagri' as one of the endangered languages*.
- **Livelihood**
  - o Traditionally, Hakki Pikkis lived in forest areas, <u>leading a nomadic life for nine months a year and coming back to their permanent camps for three</u>.
  - o Earlier, men of the tribe would hunt while women begged in villages. But as the wildlife protection laws became stricter, the Hakki Pikkis in Karnataka started selling spices, herbal oils, and plastic flowers in local temple fairs.

Visit of The King of Bhutan to India

The King of Bhutan, Jigme Khesar Namgyel Wangchuck paid an official visit to India in April, 2023. During this visit, bilateral talk was held between the King of Bhutan and PM in New Delhi.

Key Highlights Of The Bilateral Meeting

- **Close Coordination Over All Security Matters**
  - o PM Modi and Bhutanese King discussed the latest situation along the India-Bhutan border. They also discussed the <u>progress in boundary talks between China and Bhutan</u>.
    - ▪ In January 2023, the 11th Expert Group Meeting (EGM) on the China-Bhutan Boundary Issues was held in China's Kunming city.
  - o This assumes significance as, few days back, PM of Bhutan said that China has an equal say in resolving the border dispute at Doklam.
- **Talk Covered The Entire Gamut Of Bilateral Ties**
  - o It was agreed that India would step up its support to **Bhutan's upcoming 13th Five Year Plan**.
  - o At Bhutan's request, <u>India decided to extend an additional standby credit facility</u> (SCF).
    - ▪ Under SCF, India provides a standby credit facility of up to USD 100 million to Bhutan to meet its foreign exchange requirements and to maintain the stability of the Bhutanese currency
  - o This would be over and above the two existing SCF that are operating between the two countries
- **Other Developments**
  - o Both the sides plan to develop long term bilateral arrangements for a short supply of critical commodities to Bhutan, which would include petroleum, fertilisers and coal.
  - o They are also considering setting up the first Integrated Check Post (ICP) along India-Bhutan border, which would be somewhere near Jaigaon.
- **First Ever Rail Link Between India And Bhutan**

- o India will try to expedite the proposed Kokrajhar-Gelephu rail link project.
- o When completed this would be the first ever rail link between India and Bhutan.
- **In the Field of Hydro-power**
    - o India has agreed to an upward revision of the tariff of the Chhukha hydro-electric project.
        - ▪ This is the oldest hydro-electric project with Bhutan and is of great significance.

Bhutan-India Relation

Background of India-Bhutan Relationship

- Diplomatic relations between Bhutan and India were established in January 1968.
- Relationship between both the countries are guided by the Indo-Bhutan Friendship treaty.
    - o Article 2 of the Treaty declares that India would not interfere in Bhutan's administrative affairs and the latter would be guided by the former's advice in its external relations.

Significance of Bhutan for India

Buffer State Between India and China

- Bhutan's value as a buffer soared after China annexed Tibet in 1951.
- Chumbi Valley is situated at the tri-junction of Bhutan, India and China and is 500 km away from the "Chicken's neck" in North Bengal.

Economic Cooperation

- India is Bhutan's largest trading partner.
- Bhutan sources the majority of its import requirements from India. One-third of Bhutan's exports to India is electricity, highly valuable for India.
- Bhutanese currency is Ngultrum (Nu.) and is officially pegged to the Indian Rupee.
- Since 2014, India's trade with Bhutan has almost tripled from USD 484 million in 2014-15 to USD 1422 million in 2021-22.
    - o This accounts for about 80% of Bhutan's overall trade, with the balance of trade in India's favour.
- India is the leading source of investments in Bhutan, comprising 50% of the country's total FDI.

Development Cooperation

- For the 12th Five Year Plan of Bhutan, India is providing an assistance of Rs. 45 billion.
    - o Since the launching of 1st Five Year Plan of Bhutan in 1961, India has been extending financial support to Bhutan's FYPs.

Hydropower Cooperation

- Hydro-electric power generated by Bhutan's river dams is economic bedrock of the India-Bhutan relationship.
- Hydropower projects in Bhutan are an example of win-win cooperation, providing a reliable source of inexpensive and clean electricity to India, generating export revenue for Bhutan and cementing our economic integration.
- So far, Government of India has constructed three Hydroelectric Projects (HEPs) in Bhutan:
    - o 336 MW Chukha HEP, 60 MW Kurichhu HEP and 1020 MW Tala HEP.
        - ▪ These three plants are operational and exporting surplus power to India.

Internal Security

- Bhutan in past has helped India to contain insurgency in North-East by flushing out militant groups like NDFB & ULFA.
- Bhutan proved to be India's trusted friend in 2003 when it launched **Operation All Clear** against Indian insurgents taking shelter in its territory.

Geopolitical Significance

- Bhutan maintains strong economic, strategic, and military relations with neighbouring India.
- It is a founding member of the South Asian Association for Regional Cooperation (SAARC). It is also a member of BIMSTEC, World Bank, the IMF, Group of 77 and others.
- India needs Bhutan to support its causes and interests at these multilateral and bilateral platforms.

What Are The Challenges In India-Bhutan Ties?

- **Bhutan Rejects BBIN Motor Vehicles Agreement**:
  - The Motor Vehicles Agreement that was signed in 2015 involving Bangladesh, Bhutan, India and Nepal (BBIN).
  - Bhutan is yet to ratify the agreement and it attends the grouping as an observer.
- **Bhutan complaining Indian interference in its internal affairs**
- **Balance Of Trade Issue**: Growing and unsustainable trade imbalance is in favor of India.
- **Power Tariff Issue:** Bhutan wants to increase its export power tariff to India that is complained for being lesser than its cost of production.
- **Increasing Chinese inroads in Bhutan:** Bhutan has problems like high rates of unemployment and national debt. This can be a source for an economically strong China to exert its influence.

Conclusion

India-Bhutan bilateral relations are characterized by a unique and special friendship based on shared cultural, historical, and economic ties. India's continued commitment to Bhutan's socio-economic development and security needs, coupled with Bhutan's strategic location and natural resources, has ensured a strong and enduring partnership between the two countries.

[Also refer the topic *"China - Bhutan Border Dispute"* from The Recitals – January 2023]

Foreign Trade Policy 2023

- Union Minister of **Commerce and Industry** launched the Foreign Trade Policy 2023.
- FTP 2023 is a policy document which is based on continuity of time-tested schemes facilitating exports. It has replaced the old policy that had been in place since 2015.
- **It seeks to take India's exports to 2 trillion dollars by 2030**.
- The new policy will have no sunset date (ending date) and will be tweaked based on the emerging world trade scenario and industry feedback. While the policy will be open-ended, the schemes sanctioned under it will be time bound.
- The Policy had opened up a new area of potential exports called "**merchanting trade**"
  - Merchanting trade refers to shipment of goods from one foreign country to another foreign country without touching Indian ports, involving an Indian intermediary. This will also enable exports of restricted goods

- The Key Approach to the policy is **based on 4 pillars:**

- **Incentive to Remission**
- **Export promotion** through collaboration - Exporters, States, Districts, Indian Missions
- **Ease of doing business**, reduction in transaction cost and e-initiatives
- **Emerging Areas** (E-Commerce)- Developing Districts as Export Hubs and streamlining SCOMET policy.
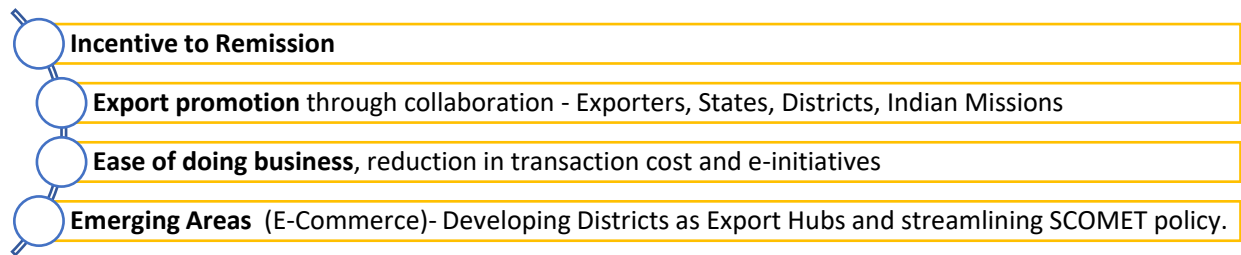
Key Highlights of FTP 2023

1. Process Re-Engineering and Automation

- Greater faith is being reposed on exporters through automated IT systems with risk management system for various approvals in the new FTP.

- The policy emphasizes export promotion and development, moving away from an incentive regime to a regime which is facilitating, based on technology interface and principles of collaboration.

- FTP 2023 **codifies implementation mechanisms in a paperless, online environment, building on earlier 'ease of doing business' initiatives**.

- **Reduction in fee structures and IT-based schemes** will make it easier for MSMEs and others to access export benefits.

- **Duty exemption** schemes for export production will now be implemented through Regional Offices in a rule-based IT system environment, eliminating the need for manual interface.

2. Towns of Export Excellence

- Four new towns, namely **Faridabad**, **Mirzapur**, **Moradabad**, and **Varanasi**, have been designated as Towns of Export Excellence (TEE) in addition to the existing 39 towns.

- The TEEs will have priority access to export promotion funds under the MAI scheme and will be able to avail *Common Service Provider (CSP)* benefits for export fulfillment under the EPCG Scheme.
  - **Market Access Initiative (MAI) Scheme** is an Export Promotion Scheme envisaged to act as a catalyst to promote India's exports on a sustained basis.
  - The objective of the **Export Promotion Capital Goods (EPCG) Scheme** is to facilitate import of capital goods for producing quality goods and services and enhance India's manufacturing competitiveness.

- TEE is expected to boost the exports of handlooms, handicrafts, and carpets.

3. Recognition of Exporters

- Exporter firms recognized with 'status', based on export performance, will now be partners in capacity-building initiatives.

- Similar to the "*each one teach one" initiative*, 2-star and above status holders would be encouraged to provide trade-related training based on a model curriculum to interested individuals.

- This will help India build a skilled manpower pool capable of servicing a $5 trillion economy before 2030.

- Status recognition norms have been **re-calibrated** to enable more exporting firms to achieve 4 and 5-star ratings, leading to better branding opportunities in export markets.

4. Promoting Export from the Districts –

- The FTP aims at building partnerships with State governments and taking forward the **Districts as Export Hubs (DEH) initiative** to promote exports at the district level.

- District specific export action plans to be prepared for each district outlining the district specific strategy to promote export of identified products and services.

- Identify export worthy products & services and **resolve concerns** at the district level will be made through an **institutional mechanism** – State Export Promotion Committee (State level) and District Export Promotion Committee (District level)

5. Streamlining SCOMET Policy –

- India is placing more emphasis on the "export control" regime as its integration with export control regime countries strengthens.
- There is a wider outreach and understanding of SCOMET (**Special Chemicals, Organisms, Materials, Equipment and Technologies**) among stakeholders.

5. Facilitating E-Commerce Exports –

- E-commerce exports are a promising category that requires distinct policy interventions from traditional offline trade.
- Various estimates suggest India's e-commerce export potential in the range of $200 to $300 billion by 2030.
- FTP 2023 outlines the intent and roadmap for establishing **e-commerce hubs** and related elements.
- As a starting point, the consignment wise cap on E-Commerce exports through courier has been raised from ₹5Lakh to ₹10 Lakh in the FTP 2023.

6. Facilitation under Export Promotion of Capital Goods (EPCG) Scheme

- The EPCG Scheme, which allows import of capital goods at zero Customs duty for export production, is being further rationalized.

7. Facilitation under Advance Authorization Scheme

- Advance authorization Scheme accessed by *Domestic Tariff Area (DTA)* units provides duty-free import of raw materials for manufacturing export items.
- Based on interactions with industry and Export Promotion councils, certain facilitation provisions have been added in the FTP 2023.

8. Amnesty Scheme

- Finally, the Government is strongly

India's foreign trade policy 2015-20

- India's Foreign Trade Policy 2015-20 was launched in April 2015 with the goal of increasing the country's exports and enhancing its competitiveness in the global market.
- The Old Policy enabled the growth of exports by 75% from $435 billion in 2015-16 to $760 billion in 2022-23.
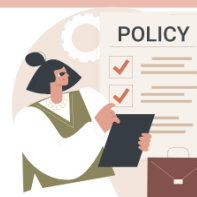
Some of the key features of the policy include:

- **Merchandise Exports from India Scheme (MEIS)**
  - This scheme aimed to incentivize exports of specified goods to specified markets.
  - The MEIS provided duty credit scrips to eligible exporters at a fixed percentage of their realized FOB (free on board) value of exports.
- **Services Exports from India Scheme (SEIS)**
  - This scheme aimed to incentivize export of notified services from India.
  - Under this scheme, eligible service providers were provided duty credit scrips at a fixed percentage of their net foreign exchange earnings.
- **Focus Product Scheme (FPS)**
  - The scheme aimed to incentivize export of specific products from India. Exporters of such products were provided duty credit scrips at fixed rates.
- **Export Promotion Capital Goods Scheme (EPCG)**
  - The scheme allowed import of capital goods for pre-production, production, and post-production at zero customs duty.
  - However, the export obligation of 6 times the duty saved had to be fulfilled in 6 years.
- **Market Access Initiative (MAI):**
  - The scheme aimed to provide financial assistance to exporters to participate in trade fairs, exhibitions, and buyer-seller meets abroad.

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committed to reducing litigation and fostering trust-based relationships to help alleviate the issues faced by exporters.

- In line with "**Vivaad se Vishwaas**" initiative, which sought to settle tax disputes amicably, the government is introducing a special one-time Amnesty Scheme under the FTP 2023 to address default on Export Obligations.

- This scheme is intended to provide relief to exporters who have been unable to meet their obligations under EPCG and Advance Authorizations.

Challenges

- **Low Credit Access**: Indian exporters have very low access to trade finance and export credit compared to other countries. This is especially true for MSMEs.

  - Export credit agencies doled out $7.6 billion in funds in India while the figure for China stood at $39.1 billion.

- **Bureaucracy:** The export process in India is more time-consuming due to a high documentation requirement. Indian exporters must prepare a large set of documents for each stage of the shipping process. It is also important to plan ahead because certification authorities at Indian ports are not available round the clock or on all days of the week.

- **Inadequate Infrastructure:** Statista's ranking of 100 countries based on the quality of their infrastructure in 2019, India's score was 68.1. Top-ranked Singapore scored 95.4 while bottom-ranked Bolivia was 10-odd points behind India, at 57.1.

- **Lack of connectivity, Congested ports/ roads, outdated rail equipment**

- **High import duties, tariff inconsistencies, non-tariff barriers**

Mizoram, Assam New Active Sectors For Infiltration: BSF

As per the recent data released by the BSF, **Mizoram and Assam have emerged as the new active sectors in 2022 for infiltration** along international border with Bangladesh.

Key Highlights

- **Four-fold rise in intruder apprehension**

  - Mizoram and Assam, that share the international border with Bangladesh, has seen a four-fold rise in intruder apprehension — from 41 in 2018 to 721 in 2022 — by the Border Security Force.

- **Increased Apprehension due to Better Vigilance & Better Fencing.**

  - To prevent the intruder, the BSF personnel have dug up several ditches at vulnerable

India – Bangladesh Border (IBB)

- The India–Bangladesh border is India's longest border measuring 4,096.7 km.
- It passes through West Bengal (2216.7 km), Assam (263 km), Meghalaya (443 km), Tripura (856 km) and Mizoram (318 km).
- The entire border consists of varied geographical features like plains, hills, riverine stretches, and forests with hardly any natural obstacles.

points along the border.

- o They also installed intruder alarm systems in 2020 along the border.
- o As part of a strategy to secure the India-Bangladesh border, several initiatives have been taken. This includes:
  - Construction of fence, floodlighting, Border Out Posts/ Company Operating Bases, building roads and development of Integrated Check Posts.

Security Challenges Along India-Bangladesh Border (IBB)?

- **Illegal Immigration**
  - o Illegal migration from Bangladesh is a contentious issue in Indian polity today because of the socio-political conflicts it has brought in its wake.
- **Terrorism and Insurgency**
  - o The problematic terrain and *porous borders* with Bangladesh have provided a congenial environment for insurgency in the North-Eastern states.
  - o The insurgents maintain cross-border links, procure arms, recruit and train their cadres, and indulge-in unlawful activities in India.
  - o Terrorist groups United Liberation Front of Asom (ULFA), People's Liberation Army (PLA) etc. have bases in Bangladesh.
  - o The border areas of West Bengal are also becoming the hub of terrorist groups looking to strike hinterland including Indian Mujahideen (IM) and Lashkar-e-Taiba (LeT).
- **Cattle Smuggling**
  - o The Home Ministry has no authoritative figures available about the number of cattle being smuggled out of India, but an average of 1-1.5 lakh cattle are seized by the BSF every year.
- **Other Activities**
  - o Activities including smuggling of arms, human and narcotics trafficking, counterfeiting Indian currency etc. are also quite rampant along the India–Bangladesh border.

Steps Taken By The Indian Government To Manage IBB

- **Border Fencing**
  - o The Indian government has constructed a fence along the India-Bangladesh border (IBB) to prevent illegal crossings and trafficking of goods and people.
  - o As of 2021, around 3,000 km of the 4,096 km long border has been fenced.
- **Constructed Border Roads**
  - o To facilitate the movement of security forces along the border and to enable better surveillance and monitoring of the border.
- **Border Outposts**
  - o Border Security Force (BSF) has operational responsibility of maintaining security along IBB.
  - o BSF has established several border outposts along the IBB to keep a watch on any illegal activity.
- **Joint Border Management**
  - o India and Bangladesh have established Joint Border Working Groups (JBWGs) and Border Coordination Conferences (BCCs) to enhance cooperation and coordination in border management.
- **Improved Connectivity** along the border
  - o Including the construction of new bridges, roads, and railway lines.
- **E-Visa and Visa-on-Arrival**

- The Indian government has introduced e-Visa and visa-on-arrival facilities for Bangladesh citizens to facilitate travel and trade between the two countries.

Indian Space Policy 2023

The Centre's updated Space Policy, cleared by the Union Cabinet was made public, has drawn measured optimism from the India's budding private sector start-up space.

> **Space Sector of India**
>
> - ISRO has an exceptional success rate and is the 6th largest space agency globally.
> - India has over 400 private space companies and ranks fifth globally in terms of the number of space companies.
> - The satellite manufacturing capabilities are expected to reach USD 3.2 billion by 2025.
> - ISRO also launched a student outreach program called SAMVAD to encourage space research among young minds.

Indian Space Policy 2023

- **About**
  - The Indian Space Policy 2023 is a comprehensive set of guidelines that outlines the roles and responsibilities of different entities in the Indian space sector.
  - The policy is expected to pave the way for much-needed clarity in space reforms and encourage private industry participation in the space economy.
  - It aims to encourage and institutionalize private sector participation in India's space sector, with the ISRO primarily focusing on R&D of advanced space technologies.

- **Objectives**
  - To augment space capabilities;
  - Enable, encourage and develop a flourishing commercial presence in space;
  - Use space as a driver of technology development and derive benefits in allied areas;
  - Pursue international relations, and create an ecosystem for effective implementation of space applications among all stakeholders

What Are The Key Features Of Indian Space Policy 2023?

- **Creates Four Distinct, But Related Entities**
  - The policy creates four distinct, but related entities, that will facilitate greater private sector participation in activities that have usually been the traditional domain of ISRO.
  - These four entities are:

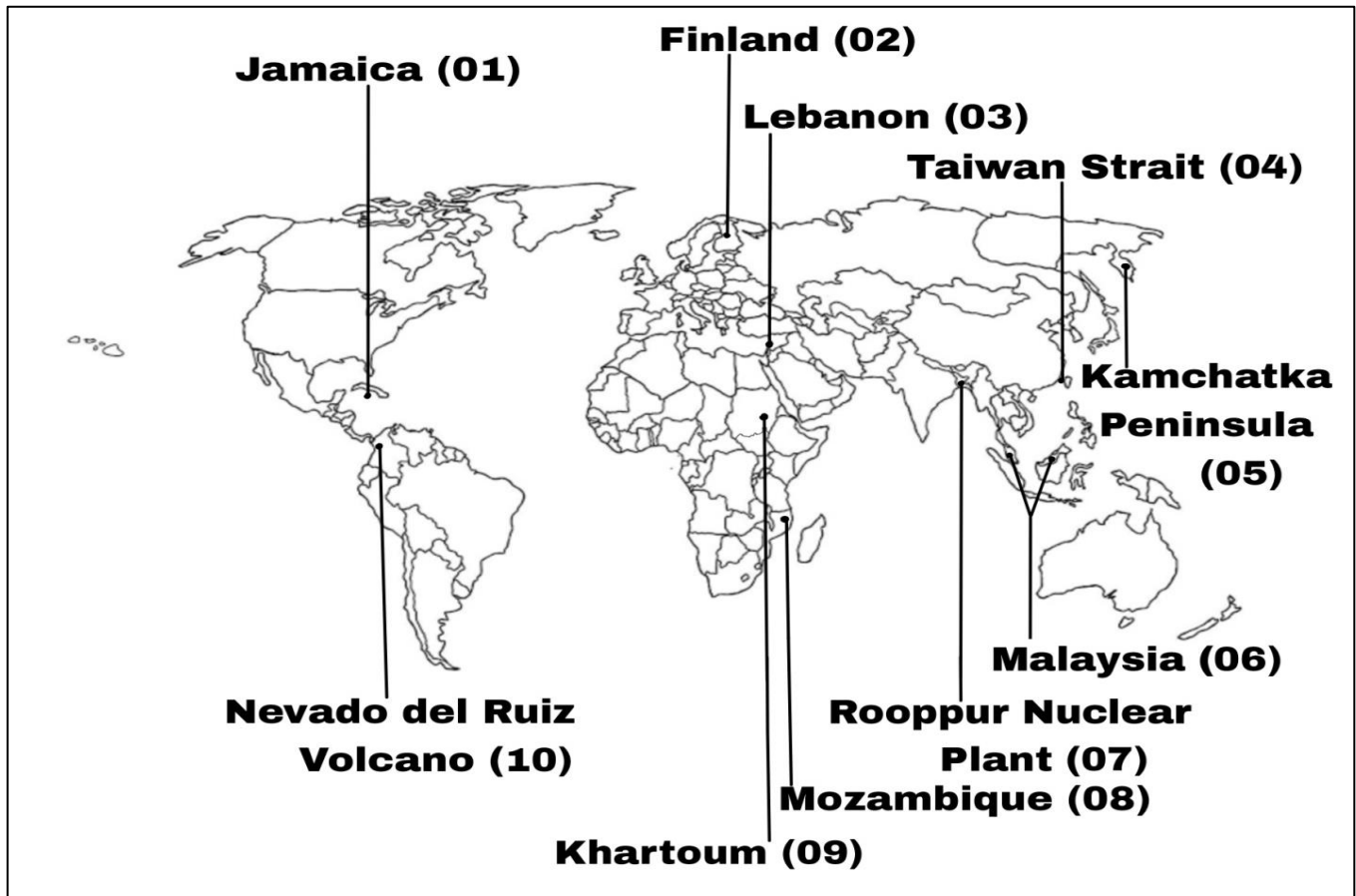| ISRO	IN-SPACe	New Space India Limited (NSIL)	Department of Space

- **Private companies allowed to undertake end-to-end space activity**
  - Private companies, referred to as non-governmental entities in the policy, will be allowed to undertake end-to-end space activity.
  - These activities include –
    - Launching and operating satellites, developing rockets, creating ground stations, building spaceports and mobile launch platforms; and

- ▪ Providing services like communication, remote sensing and navigation, nationally and internationally.
- **Other Roles Envisaged For Private Entities**
  - o Private entities have also been encouraged to develop space situational awareness capabilities.
    - ▪ Space situational awareness capabilities is a mechanism to track objects in space and avoid collision of satellites and space stations with each other or space debris.
  - o The policy also says that private players can engage in commercial recovery of asteroids or space resources.
  - o Private participation will be limited to Indian companies.
    - ▪ The question of whether foreign direct investment via the automatic route will be permitted in space is as yet unresolved and pending government approval.
- **Role of the IN-SPACe** (Indian National Space Promotion and Authorisation Centre)
  - o As per the policy, IN-SPACe will be the single-window agency for authorisation of all space activities.
  - o It will also develop space industry standards, promote identified space activities and work with academia to widen the space ecosystem and enable industry-academia linkages.
- **Role of ISRO**
  - o ISRO, meanwhile, has been asked to move away from routine activities and focus on research and innovation.
  - o This will mean developing new space technologies and applications in order to maintain India's edge in the areas of space infrastructure, space transportation, space applications, capacity building and human spaceflight.
- **Role of New Space India Ltd (NSIL)**
  - o The *government's commercial arm*, NSIL, has been asked to commercialise technologies and platforms created by government entities.
  - o It has also been tasked to manufacture, lease, or buy space technologies or assets, and provide space-based services to government as well as private entities.
- **Role of the Department of Space**
  - o It has been asked to implement the policy, interpret and clarify any ambiguities and establish a framework for safe and sustainable space operations.
  - o It will be the nodal department for implementing space technologies.
  - o It will also look after international cooperation and coordination in the area of global space governance and programmes in consultation with Ministry of External Affairs.
  - o It has also been tasked to create an appropriate mechanism to resolve disputes arising out of space activity.
- **Enables Open Satellite Data Access**
  - o Satellite images with a ground sample distance (GSD) greater than five metres (a satellite image where two adjacent pixels represent points five metres apart on the ground) would be freely available.
  - o However, those with a GSD less than 30 cm will require INSPACe authorisation due to national security considerations.

INTERNATIONAL PLACES IN NEWS

01	**Jamaica**	India's External Affairs Minister co-chaired the **4th India-CARICOM** ministerial meeting with his Jamaican counterpart. It is an island country situated in the Caribbean Sea. It is the 3rd largest island in the Caribbean Sea, after Cuba and Hispaniola. It achieved independence from the United Kingdom on 6 August 1962.
02	**Finland**	Finland joined the US-led North Atlantic Treaty Organisation (NATO). It is located in northern Europe. The country borders the Baltic Sea, the Gulf of Bothnia, and the Gulf of Finland, it maintains land borders with Norway, Sweden, and Russia. Helsinki is the capital and largest city.
03	**Lebanon**	Rockets were fired from Lebanon targeting Israel. It is a country in Western Asia. Capital is Beirut. It is bounded Syria, Israel, and the Mediterranean Sea. The border with the Israeli-occupied Golan Heights is disputed by Lebanon in a small area called Shebaa Farms.
04	**Taiwan Strait**	71 Chinese military aircraft crossed the sensitive median line of the Taiwan Strait as China began drills around Taiwan. It is also called Formosa Strait. It is a 180-km wide strait separating the island of Taiwan and continental Asia. It is part of the South China Sea and connects to the East China Sea to the north.
05	**Kamchatka Peninsula**	A volcano erupted on Kamchatka Peninsula. It is a 1,250-km-long peninsula in the Russian Far East. The Pacific Ocean and the Sea of Okhotsk make up the peninsula's eastern and

		western coastlines, respectively. It contains the volcanoes of Kamchatka, a **UNESCO World Heritage Site.**
06	**Malaysia**	India and Malaysia have agreed to settle trade in Indian rupees. It is a country in Southeast Asia. It is separated by the South China Sea into two regions: Peninsular Malaysia and Borneo's East Malaysia. Peninsular Malaysia shares a land and maritime border with Thailand. East Malaysia shares land and maritime borders with Brunei and Indonesia. Capital of Malaysia is **Kuala Lumpur**.
07	**Rooppur Nuclear plant**	Bangladesh and Russia have agreed to use Chinese yuan to settle payment for the construction of Rooppur nuclear plant. It is located in Bangladesh, on the bank of the river **Padma.** It will be the country's 1st nuclear power plant, and the 1st of the two units is expected to go into operation in 2024.
08	**Mozambique**	India's Foreign Minister visited Mozambique. It is a country located in southeastern Africa. It is divided into two topographical regions by the **Zambezi River.** It is bordered by the Indian Ocean, Tanzania, Malawi, Zambia, Zimbabwe, Eswatini and South Africa. The capital is Maputo.
09	**Khartoum**	Fierce fighting broke out in Khartoum. It is the capital of Sudan. It is located at the confluence of the White Nile and the Blue Nile. It is home to the largest airport in Sudan, Khartoum International Airport.
10	**Nevado del Ruiz volcano**	People living on the upper slopes of the Nevado del Ruiz volcano are being evacuated after an increase in seismic activity. It is located in Colombia. It is a strato volcano composed of many layers of lava alternating with hardened volcanic ash and other pyroclastic rocks. It is part of *Los Nevados National Natural Park*, which also contains several other volcanoes.

NATIONAL PLACES IN NEWS

01	**Zafar Mahal**	The Archaeological Survey of India (ASI) is set to initiate conservation works at Zafar Mahal. This is the last structure built by the Mughals. It is located in Mehrauli, Delhi. It was built in memory of the **Hazrat Khwaja Qutubuddin Bakthiar Kaki**, the renowned Sufi saint. It was started by **Emperor Akhbar Shah II** and was finished by the last Mughal emperor, **Bahadur Shah Zafar.**
02	**Spiti Valley**	Himachal Pradesh Chief Minister said that 4G services would be extended to the Spiti Valley. It is a cold desert mountain valley located in the northeastern part of Himachal Pradesh. In the east, it shares its boundary with Tibet. The famous Tabo Monastery is located in it. **Kunzum La is the highest point of spiti valley.**
03	**Pindari Glacier**	A group of 14 trekkers were stranded at Pindari glacier after an avalanche hit. It is located in Uttarakhand in the Kumaon Himalayas. It lies on the edge of **Nanda Devi**. It is the source of the Pindari River, which meets the Alakananda River at Karnaprayag in the Garhwal district.
04	**Nathu La**	A massive avalanche struck the popular Nathu La mountain pass. It is a mountain pass in the Himalayan peaks situated on the Indo-Tibetan border in Sikkim. It is an open trading border post between India and China. It connects Sikkim with Chumbi Valley of the Tibetan Plateau in China
05	**Subansiri Lower Dam**	The contentious Subansiri Lower Dam project was hit by a landslide. It is an under construction gravity dam on the Subansiri River in Arunachal Pradesh. It will be the largest hydroelectric project in India. The estimated annual energy generation from the Project is 7421.59 MU in a 90% dependable year.
06	**Siju cave**	Researchers from the Zoological Survey of India (ZSI) have discovered a new species of frogs from deep within the Siju cave. It is a limestone cave and is famous for its stalagmites and stalactites. It is located in Meghalaya near the Napak Lake and Simsang River game reserve. It is also known as Bat Cave.
07	**Satkosia Wildlife Sanctuary**	Breeding of Indian skimmers recorded for the first time at Satkosia Wildlife Sanctuary. It is located in Odisha on the banks of the Mahanadi River. It has been recognized as a critical tiger habitat by the National Tiger Conservation Authority (NTCA). It is home to a diverse range of flora, including **dry deciduous forests, moist deciduous forests, and tropical moist forests.** The sanctuary is known for its Sal forests, which cover a large part of the area.
08	**Kamarajar Port**	Chairman of Kamarajar Port Ltd said that the port will soon be able to handle cape size vessels. It is one of the 12 major ports of India and is situated in the **Tamil Nadu** on the Coromandel Coast, Chennai. It was formerly as **Ennore Port.** It is the 1st port in India which is a public company.
09	**Danish Fort**	The 400-year-old Danish Fort in Tamil Nadu, is set to undergo a facelift worth 3.5 crore. The Danes constructed it in 1620, which is also referred to as Fort Dansborg. The fort was used as a base for the Danish East India Company's troops. Later, its administration was handed over to the British and then to India after Independence.
10	**Madh Island**	The western zone bench of the **National Green Tribunal (NGT)** revoked the stay on demolition of five studios in the Madh Island. The area is bounded by the Arabian Sea to the west, and the Malad creek on the east. There are few beaches like Erangal Beach, Dana Pani Beach, Silver Beach, Aksa Beach

01	**Shivalik Elephant Reserve**	It is located in Uttrakhand. It was notified in 2002. The *Kansora-Barkot* Elephant Corridor is located near to it. It is considered to have one of the highest densities of elephants found in India. It encompasses some of the parts of the Corbett Tiger Reserve and Rajaji National Park.
02	**Eastern Dooars Elephant Reserve**	It is located in West Bengal. It was notified in 2001. It is an alluvial floodplains lie south of the outer foothills of the Himalayas and north of the Brahmaputra River basin. It is part of the Terai-Duar savanna and grasslands ecoregion. Sankosh River divide Eastern Dooars from Western Dooras.
03	**Chirang-Ripu Elephant Reserve**	It is located in Assam. The forests of Ripu and Chirang are contiguous with those of Buxa Tiger Reserve of West Bengal and Phipsoo Wildlife Sanctuary of Bhutan. **Manas National Park** is also the core area of Chirang-Ripu Elephant Reserve.
04	**Dihing Patkai Elephant Reserve**	It is located in Assam. Dehing Patkai was declared a wildlife sanctuary in 2004. It is also known as the Jeypore Rainforest. Dehing is the name of the river that flows through this forest and Patkai is the hill at the foot of which the sanctuary lies.

05	**Deomali Elephant Reserve**	It is located in Arunachal Pradesh. It was established in 2002. It is surrounded by hills, _tea gardens,_ forests, and Burhi-Dihing River.
06	**Garo Hills Elephant Reserve**	It is located in Meghalaya. It is the western most limit of the Indo Malayan Biodiversity Hotspots. It comprises of three legally designated Protected Areas - Nokrek National Park, Balpakram National Park and Siju Wildlife Sanctuary.
07	**Mayurbhanj Elephant Reserve**	It is located in Odisha. It encompasses three protected areas like Similipal Tiger Reserve, Hadgarh Wildlife Sanctuary, Kuldiha Wildlife Sanctuary. It is included with Simlipal National Park. The main feature of the Reserve is the Hadgarh Sanctuary and the reservoir of Hadgarh, which is adjoining with Baula Hills.
08	**Nilgiri Elephant Reserve**	It is located in Tamil Nadu. This Reserve and adjacent areas host the largest Asian elephant population in India. Nilgiris Elephant Corridor is situated in the ecologically fragile Sigur plateau, which connects the Western and the Eastern Ghats. Nilgiri biosphere reserve was established in 1986 and in 2012 it was declared a **World Heritage site by UNESCO**.
09	**Wayanad Elephant Reserve**	It is located in Kerala. It was established as a wildlife sanctuary in 1973 and was brought under the Project Elephant in the year 1991-92. It is contiguous to the tiger reserves of **Nagerhole and Bandipur** of Karnataka and **Mudumalai** of Tamil Nadu. **Kabini river** flows through it which is a tributary of Cauvery river.
10	**Mysore Elephant Reserve**	It is located in Karnataka. It was established in 1952. It comprises Bannerghatta National Park, Cauvery Wildlife Sanctuary, M.M. Hills, Bandipur and Nagarahole Tiger Reserves, Pushpagiri Wildlife Sanctuary and the Bhadra Elephant Reserve area.

Latest National Health Account Figures About India's Healthcare Sector

Ministry of Health and Family Welfare has released the National Health Account Estimates 2019-20.

Major Findings of NHA Estimates 2019-20

- **Government Expenditure on Health –**
  - During this period, the share of _Government Health Expenditure (GHE)_ in the overall GDP of the country has **increased from 1.13% in 2014-15 to 1.35% in 2019-20**.
  - In per capita terms, GHE has doubled from Rs. 1,108 to Rs. 2,014 between 2014-15 to 2019-20.

NATIONAL HEALTH ACCOUNTS (NHA)

Report on National Health Accounts Estimates is published by the **National Health Systems Resource Centre (NHRSC)** under the Union Ministry of Health & Family Welfare.

- The NHA for 2019-20 is the seventh round of estimates since 2013-14.

It is based on the globally accepted framework of **'System of Health Accounts, 2011'** for inter-country comparison and learning.

- System of Health Accounts (SHA) was originally developed by the **World Health Organization (WHO).**
- SHA is an internationally standardized framework that systematically tracks the flow of expenditures in the health system.

NHA provides detailed information on overall health expenditure both by the public and private sector in the country.

- **Out-of-Pocket Expenditure (OOPE) –**
  - The share of OOPE in total Health Expenditure (THE) **declined from 62.6% to 47.1%**.
  - The continuous decline in the OOPE in the overall health spending show progress towards ensuring financial protection and Universal Health Coverage for citizens.
  - In the Total Health Expenditure (THE) of the country between 2014-15 and 2019-20, the **share of GHE has increased from 29% to 41.4%**.

- **Increase in Social Security Expenditure (SSE) –**
  - This increase in social security has a direct impact on reducing out-of-pocket payments.
  - A robust social security mechanism ensures that individuals will not face financial hardship and the risk of poverty as a consequence of accessing essential healthcare services.
  - The share of SSE on health, which **includes government-funded health insurance, medical reimbursement to government employees, and social health insurance programs**, in THE, has **increased from 5.7% in 2014-15 to 9.3% in 2019-20**.
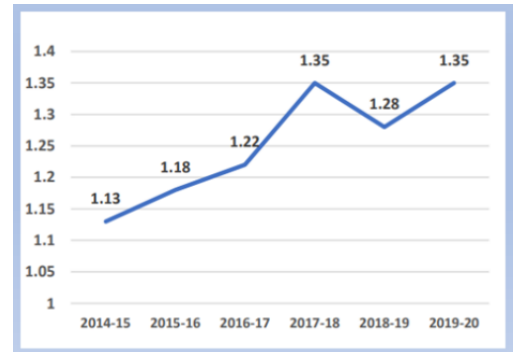
Comparing India's Government Health Expenditure with Other Countries'

- As per the NHA estimates for 2019-20, India spends 1.35% of total GDP on public health expenditure.
- Compare this with countries like the United Kingdom, Netherlands, New Zealand, Finland and Australia where all these countries **spend over 9% of their total GDP** in public healthcare system.
- Neighbouring countries like Bangladesh and Pakistan have over 3% of their GDP going towards public healthcare system.

Way Ahead

- **Increasing Public Spending On Health** –
  - The National Health Policy (2017) recommends government expenditure on health to be **increased to 2.5% of GDP by 2025**.

- **Improve Doctor-to-Patient ratio –**
  - As of February 2021, **India's doctor-to-population ratio stood at 1:1404**, while the WHO recommends the doctor-to-population ratio to be 1:1000.
  - For people in the rural India who are completely dependent on government healthcare facilities, the doctor to patient ratio is abysmally low with **1:10,926 doctors**.
- **Optimizing the use of technology –**
  - Technology-enabled community health workers, nurses and other frontline care providers can perform many functions in primary care.

Civil Liability for Nuclear Damage Act (CLNDA) 2010

- The issues regarding India's nuclear liability law - the **Civil Liability for Nuclear Damage Act (CLNDA) 2010 -** are holding the six nuclear power reactors in Maharashtra's Jaitapur.
- The 9,900 MW project at Jaitapur is the **world's biggest nuclear power generation site** which has been under consideration for more than a decade.

Why Are Laws on Nuclear Liability Needed?

- They ensure that **compensation is available to the victims** for nuclear damage caused by a nuclear incident/disaster and set out **who will be liable for those damages**.
- The international nuclear liability regime consists of **multiple treaties** and was strengthened after the **1986 Chernobyl nuclear accident**.
- The umbrella **Convention on Supplementary Compensation** (CSC) was adopted in **1997** with the aim of establishing a *minimum national compensation amount.*
- The amount can further be increased through **public funds** (to be made available by the contracting parties), if the amount to compensate for the damage is insufficient.

Laws Governing Nuclear Liability In India

- India was a signatory to the CSC, but ratified the convention only in **2016**.
- To keep in line with the international convention, India enacted the **CLNDA** in 2010, to put in place **a speedy compensation mechanism** for victims of a nuclear accident.
- India currently has **22** nuclear reactors with over a dozen more projects planned.
  - All the existing reactors are operated by the **state-owned** Nuclear Power Corporation of India Limited (**NPCIL**).

Salient Provisions of CLNDA

- The CLNDA provides for **strict and no-fault liability on the operator of the nuclear plant**, where it will be held liable for damage regardless of any fault on its part.
- **It also specifies the amount (₹1,500 crore)** the operator will have to shell out in case of damage and requires the operator to cover liability through **insurance**.
- **In case the damage claims exceed ₹1,500 crore**, the CLNDA expects the government to step in.
- **The Act has limited the government liability amount** to the rupee equivalent of 300 million Special Drawing Rights (SDRs) or about **₹2,100 to ₹2,300 crore**.

Supplier Liability and CLNDA's Position On It

- The "*international legal framework*" is based on the central principle of **exclusive liability of the operator of a nuclear installation** and no other person.
  - This is because excessive liability claims against suppliers of nuclear equipment **would make their business unviable and hinder the growth of nuclear energy.**

- This is also to avoid legal complications in establishing separate liability in each case and to make just one entity in the chain (operator) to take out insurance.
- However, **the CSC lays down two conditions** under which the national law of a country may provide the operator with the "right of recourse", where they can extract liability from the supplier.
  - If it is expressly agreed upon in the contract
  - If the nuclear incident results from an act or omission done with intent to cause damage
- However, *India went beyond these two conditions* and **introduced the concept of supplier liability over and above that of the operator's** in the CLNDA.

Why Did CLNDA Introduce the Concept of Supplier Liability?

- **Section 17(b) of the CLNDA:** The operator of the nuclear plant, after paying their share of compensation, shall have the right of recourse **where the nuclear incident has resulted as a consequence of an act of the supplier or his employee.**
  - This includes **supply of equipment or material** with patent or latent defects or sub-standard services.
- Defective parts were partly responsible for historical incidents such as the **Bhopal gas tragedy in 1984.**

Why Is The Supplier Liability Clause An Issue In Nuclear Deals?

- **Foreign suppliers** of nuclear equipment as well as **domestic suppliers** have been wary of operationalising nuclear deals with India.
- Concerns about potentially getting **exposed to unlimited liability** under the CLNDA and **ambiguity** over how much insurance to set aside have been sticking points for suppliers.
- **For example,**
  - **Section 46** of CLNDA allows victims of a nuclear catastrophe **to seek claims for damages** against the operator or the supplier under *criminal law*, **even though such legal actions fall beyond the purview of the CLNDA.**
  - Absence of a comprehensive definition on the types of 'nuclear damage'.

Stalled Projects in India

- **The Jaitapur nuclear project** has been stuck for more than a decade - the original MoU was signed in 2009 with France's Areva.
- **Other nuclear projects**, including the nuclear project proposed in **Kovvada** (Andhra Pradesh) have also been stalled.
- Despite signing civil nuclear deals with a number of countries, including the U.S., France and Japan, **the only foreign presence in India is that of Russia in Kudankulam** - which predates the nuclear liability law

Indian Government's Stand

The Indian law is in consonance with the CSC. **For example,** Section 17(b) "permits" but "does not require" an operator to include in the contract or exercise the right to recourse.

National Medical Devices Policy 2023

The Union Cabinet approved the National Medical Devices Policy, 2023. The policy is expected to facilitate an orderly growth of the medical device sector to meet the public health objectives of access, affordability, quality, and innovation.

Background on Medical Device Sector

- The medical devices sector in India is an essential and integral constituent of the Indian healthcare sector, particularly for the prevention, diagnosis, treatment and management of medical conditions, diseases, illnesses, and disabilities.

- The medical device is a multi-product sector, with the following broad classifications:
  - Electronics Equipment
  - Implants
  - Consumables and Disposables
  - IVD reagents
  - Surgical Instruments
- The medical devices sector in India is a sunrise sector which is growing at a fast pace.
- The current *market size of the medical devices sector in India is estimated to be $11 bn and its share in the global medical device market is estimated to be 1.5%*.

Need for a Holistic Framework for Medical Devices

- The Government of India has already initiated implementation of PLI Scheme for medical devices and support for setting up of 4 Medical devices Parks in States of Himachal Pradesh, MP, UP, AND Tamil Nadu.
- Under the PLI scheme for Medical Devices, till now, a total of 26 projects have been approved, with a committed investment of **Rs. 1200 crore**.
  - **Production Linked Incentive**, or PLI, scheme of the Government of India is a form of performance-linked incentive to give companies incentives on incremental sales from products manufactured in domestic units.
- Building upon these measures, a holistic policy framework to accelerate this growth and fulfil the potential of the sector is the need of the hour.

Salient Features of National Medical Devices Policy, 2023

- **Vision –**
  - Accelerated growth path with a patient-centric approach;
  - To emerge as the global leader in the manufacturing and innovation of medical devices by achieving 10-12% share in the expanding global market over the next 25 years;
  - To help the Medical Devices Sector **grow from present $11 Bn to $50 Bn by 2030**.
- Medical devices sector will be facilitated and guided through a set of strategies that will be cover six broad areas of policy interventions –
- **Regulatory Streamlining –**
  - In order to enhance ease of doing research and business and further to balance patient safety with product innovation measures.
- **Enabling Infrastructure –**
  - The establishment and strengthening of large medical device parks, clusters equipped with world class common infrastructure facilities in proximity to economic zones with requisite logistics connectivity.
- **Facilitating R&D and Innovation –**
  - The policy envisages to promote R&D in India and complement the Department's proposed National Policy on R&D and Innovation in the Pharma- MedTech Sector in India.
  - It also aims at establishing Centres of Excellence(CoE) in academic and research institutions, innovation hubs, 'plug and play' infrastructures and support to start-ups.
- **Attracting Investments –**
  - Along with schemes and interventions like Make in India, Ayushman Bharat program, Heal-in-India, Start-up mission, the policy encourages private investments, series of funding from Venture Capitalists, and also Public-Private Partnership(PPP).

- **Human Resources Development –**
  - o For skilling, reskilling and upskilling of professionals in the medical device sector, we can leverage the available resources in Ministry of Skill Development and Entrepreneurship.
  - o The policy will support dedicated multidisciplinary courses for medical devices in existing institutions.
  - o To develop partnerships with foreign academic/industry organizations to develop medical technologies in order to be in equal pace with the world market.
- **Brand Positioning & Awareness Creation –**
  - o Initiate studies and projects for learning from best global practices of manufacturing and skilling system so as to explore the feasibility of adapting such successful models in India.
  - o Promote more forums to bring together various stakeholders for sharing knowledge and build strong networks across the sector.

The policy is expected to provide the required support and directions to strengthen the medical devices industry into a competitive, self-reliant, resilient and innovative industry that caters to the healthcare needs of not only India but also of the world.

Ongoing Protests Against the Wrestling Federation of India (WFI)

Many of India's top wrestlers are sitting in protest in New Delhi's Jantar Mantar, demanding action against Wrestling Federation of India chief **Brij Bhushan Saran Singh**.

About Wrestling Federation of India (WFI)

- Wrestling Federation of India (WFI) is a governing body of wrestling.
- It was founded in **1958** and is based in **New Delhi**.
- It promotes wrestling players for the Olympics, Asian Games, National Wrestling Championships, and World Wrestling Championships.

WFI's Contract System for Wrestlers

- In 2018, the WFI rolled out its revolutionary contracts system for the grapplers.
- Under the system, the wrestlers have been placed in four grades –
  - o Grade A offers financial assistance of 30 lakh rupees;
  - o Grade B contract offers a financial assistance of 20 lakh rupees;
  - o The C category offers support of 10 lakh rupees;
  - o The D category offers support of 5 lakh rupees.
- The contracts are reviewed after one year.

Why Are India's Top Wrestlers Protesting?

- Veteran Indian wrestler **Vinesh Phogat** had alleged that WFI President **Brij Bhushan** has been involved since many years in sexually exploiting women wrestlers.
- She further claimed that several coaches at the national camp in Lucknow have also exploited women wrestlers.
- The wrestlers have also alleged financial mismanagement and arbitrariness in the functioning of the WFI.

What Are The Protesting Wrestlers Demanding?

- The wrestlers are demanding that an FIR be registered against Brij Bhushan on the basis of their police complaint, and that *he be arrested under the Protection of Children from Sexual Offences (POCSO) Act* as one of the complainants is a minor.

- They have also demanded that *he should be removed as the WFI president*, and that the federation should be dissolved.

Measures Taken by Central Government

- In January, the government persuaded the wrestlers to call off their protest by forming an Oversight Committee.
  - The committee was tasked with looking into the allegations against Brij Bhushan as well as managing the day-to-day affairs of the WFI.
- The six-member committee, headed by boxing legend **MC Mary Kom**, was given four weeks to come up with its findings. However, it submitted its report only in the first week of April.
- The committee has since been disbanded.
- Following the fresh protests recently, the Government has declared the ongoing process for the WFI elections, which were scheduled for May 7th, null and void.
- The Ministry has **requested the Indian Olympic Association (IOA) to form a transitory or ad-hoc committee to run the day-to-day affairs of the WFI** and to conduct elections to its new executive committee within 45 days of the formation of such interim body

Findings of the Oversight Committee

- The **report is still being "examined", and has not been made public**.
- However, the Sports Ministry has recently shared the "major findings" following preliminary scrutiny of the report.
- The key points stated by the government were –
  - Absence of a duly constituted Internal Complaints Committee in WFI under the Prevention of Sexual Harassment Act, 2013;
  - Lack of an adequate mechanism for awareness building among sportspersons, for grievance redressal, etc.;
  - Need for more transparency and consultation between the Federation and the stakeholders, including the sportspersons;
  - Need for effective communication between the Federation and sportspersons.

What Happens Next?

- Seven women wrestlers filed separate police complaints against WFI President Brij Bhushan Singh on April 21, accusing him of sexual harassment and criminal intimidation over a 10-year period from 2012 to 2022.
- The **Supreme Court will look into the matter.**
- The wrestlers have said they will continue the protests until their demands are met.

Juvenile Justice Act: How Can A Juvenile Be Tried As An Adult In Court?

- The National Commission for Protection of Children (NCPCR) has recently issued guidelines for conducting **a preliminary assessment** by the Juvenile Justice Board (JJB) under the Juvenile Justice Act, 2015 (JJ Act, 2015).
- This preliminary assessment is to ascertain whether a juvenile can be tried as an adult.

Issues With The Process

- **The NCPCR is under a statutory obligation** under the JJ Act, 2015 to monitor the **proper implementation** of the provisions of the Act.
- The "*guidelines*" *have been made to remove any ambiguity and to clarify the steps that need to be followed while conducting the preliminary assessment.*

- However, the major issue remains the **implementation and absorption of these principles** in the system.
- A lot of principles which have been made a part of the Act have **not been given due prominence by the JJB as well as by the Children's Court.**

How Does a Child Get Tried as an Adult?

- Replacing the JJ Act 2000, the Act of 2015 provided (for the first time) for trying juveniles in the **age group of 16-18 as adults** in cases of heinous offences.
- The Act has categorised the offences committed by children into **three categories** - petty offences, serious offences, and heinous offences.
- **Section 15 of the JJ Act:** In case of a **heinous offence** allegedly committed by a child (in the age group of 16-18), **the JJB shall conduct a preliminary assessment regarding -**
  - **His mental and physical capacity to commit such offence**,
  - Ability to understand the consequences of the offence and
  - The circumstances in which he allegedly committed the offence.
- **Section 18 (3) of the JJ Act:** If the JJB, after preliminary assessment, passes an order that there is a need for trial of the said child as an adult, then the **JJB may order the transfer of the case to the Children's Court**.
- Thus, the sole objective of having such a preliminary assessment is to determine whether a child within the age group of 16-18 years should be tried as an adult in case of heinous offences.

Responsibilities of JJB

- **The JJB shall be responsible for the preliminary assessment** and provide the child, the child's family, and their counsel a copy of the order.
- In case the JJB does not have at least one member who is a practitioner with a degree in child psychology or child psychiatry, **the JJB shall take the assistance of psychologists or experts.**
- The child should also be provided with a legal aid counsel through the **District Legal Services Authority** (DLSA) who shall be present during the preliminary assessment.
- During the preliminary assessment, the Board and experts shall also analyse and take into consideration the **Social Investigation Report (SIR)/**Social Background Report (SBR)**.**
  - SIR is prepared by the Probation officer or Child Welfare Officer or any social worker **after interaction with the child or child's family.**

Issue Of Stray Dogs In India

- The Centre has decided to reach out to the States, local self-governments (LSGs) and Resident Welfare Associations (RWAs) on implementing the *new set of Animal Birth Control Rules prepared by the Ministry of Animal Husbandry.*
- The Rules, which came amid increasing instances of stray dog attacks, put the onus of maintaining and controlling the population of stray dogs on LSGs and RWAs.

Population of Stray Dogs in India and Policies to Control Them

- At present, there are over 10 million pet dogs in the country and **the stray dog population is about 35 million.**
  - Dogs are **highly fertile animals**, and reproduce at a high rate if enough resources are available.
  - **Nearly 90% of the dog population** needs to be sterilised over a short period of time to achieve a sustained population reduction over a 10-15-year period.
- **The Prevention of Cruelty to Animals (PCA) Act 1960** mandates that every owner of an animal is responsible for its well-being, and it is illegal to abandon pets or allow them to become strays.
- **The Animal Birth Control (ABC) Rules 2001,** are based on **the PCA Act 1960**

- The Rules aimed to control the population of stray dogs through **sterilization and vaccination.**
- The program is implemented by **local municipalities and NGOs**, with the government providing financial assistance.

> **India's Stray Dog Menace:**
>
> - The increasing population of stray dogs deprives people of their right to **life, free movement, and a safe environment.**
>   - According to the National Crime Records Bureau (NCRB), there were 4,146 reported cases of dog bites leading to human deaths in India in 2019.
>   - According to a study, dogs were the **second leading cause of road accident**s in urban areas.
> - **Creates huge conflict between feeders and ordinary residents** who have to deal with packs of dogs roaming around their neighborhoods.
> - Dogs are also leading causes of **harm to wildlife, and cause immense loss of biodiversity.**

- However, the government has failed to implement effective measures to control the stray dog population and ensure their well-being.

The ABC Rules 2023

- The new Rules prescribe that ABC programmes for sterilisation and immunisation of stray dogs are **to be carried out by LSGs** for **birth control as well as maintenance of stray animals**.
- The Rules also suggest **euthanasia** for "incurably ill and mortally wounded dogs" as diagnosed by a team appointed by the Local Animal Birth Control Monitoring Committee.
- The Rules want the **RWAs to designate feed spots for dogs** which shall be far from children play areas, entry and exit points, staircase or in an area which is likely to be least frequented by children and senior citizens.
- It also suggests establishment of an **Animal Help Centre** where complaints about dog or cat bites can be registered.
- The local authorities will be held **responsible** for any violation and animal-human conflicts.
- Therefore, **the effective implementation of these Rules** will help in reducing stray dog population while addressing animal welfare issues.

Problems With ABC Programme

- **It does not seem to have any benchmarks or targets**. Municipalities set targets for sterilisation based on budgets and available facilities.
  - **For example**, before the start of the programme, a municipal corporation would be required to **estimate the base population of dogs to be sterilised**.
  - It would then need to set targets for population reduction within a reasonable time period and then calculate how many would need to be sterilised to achieve this objective.
- **The other major problem is that the new ABC Rules require people to feed dogs.**
  - The concept of feeding animals in India is associated either with **religious beliefs, a false sense of compassion, or a misinterpretation of Article 51G** of the fundamental duty to be compassionate to all living beings.
  - A study conducted in Bengaluru found that roadside eateries and a few households that fed dogs were the main factors responsible for high dog densities.
- **It is cruel to dogs**, since homeless life on the streets is not easy, with accidents, disease, wanton cruelty and constant fear being their normal state.

What Needs To Be Done?

- Solving this problem requires a **multi-pronged approach** and some difficult decisions.
- The government needs to **implement effective animal control measures and waste management** to eliminate open litter from the roads.

- **Strict pet ownership laws**, a ban on irresponsible feeding in public places, and encouraging adoption and long-term sheltering of homeless dogs will result in win-win solutions.
- **Individuals** also have a role to play in solving this problem.
- Cities such as **Ooty, Chennai and parts of Uttarakhand, Goa and Delhi** can be showcased as better models in managing stray dogs.

  We shouldn't be turning our best friends into our deadliest foes if the "**greatness of our nation and its moral progress**" is to be assessed by how we treat animals.

State of World Population Report 2023

- The UN Population Fund (UNFPA) has released the State of World Population Report, 2023.
- As per the report, India is set to overtake China to become the world's most populous country by the middle of 2023.

> **State of World Population Report**
>
> - It is an annual publication released by UNFPA. It provides an analysis of the world population and its various aspects such as health, education, human rights, and economic development.
> - The report offers insights into population trends, challenges, and opportunities for development in different regions and countries of the world

Key Highlights Of The Report With Respect To India

- **India Is On Track To Be The World's Most Populous Country**
  - India is set to overtake China to become the world's most populous country by the middle of 2023.
  - India's population is pegged to reach 142.86 crore against China's 142.57 crore.
    - The United States is a distant third, with an estimated population of 34 crore.
  - According to the UN projections, India's population is expected to grow for the next three decades after which it will begin declining.

- **Working Population Of India**
  - 68 per cent of India's total population is between the ages of 15 and 64 years, which is considered the working population of a country.
  - About 25 per cent is between 0-14 years; 18 per cent between 10 and 19 years, 26 percent between 10 and 24 years, and 7 per cent above 65 years.

- **Other Demographic Indicators**
  - The average life expectancy at birth for males in India is 71 years while for females it is 74 years.

	Population	15-64 years	65+	TFR	Life expectancy
India	1,428.6 mn	68%	7%	2.0	72.5 yrs
China	1,425.7 mn	69%	14%	1.2	79 yrs
World	8,045 mn	65%	10%	2.3	73.5 yrs

UNFPA's State of World Population Report 2023

- **India In A Unique Position**
  - India is in a unique position in which the young and working population is larger than the population which needs care (children and the elderly).
  - This is unlike countries such as Japan with a declining population and an increasing elderly population.
  - Such countries are, and will be, in dire need of skilled labour, and this is something that India can provide, capitalising on its demographic dividend.

- **Population Anxieties Are Widespread**
  - Population anxieties refer to concerns or worries related to the size, growth, and distribution of human populations.
  - Governments are increasingly adopting policies aimed at lowering or maintaining fertility rates.

Other Highlights Of The Report With Respect To Rest Of The World

- **Population Trends Everywhere**

  o The report says that contrary to the alarm bells about exploding numbers, <u>population trends everywhere point to slower growth and ageing societies</u>.

- **Eight countries will account for half the projected growth in global population by 2050**

  o These countries are:

    ▪ the Democratic Republic of Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania.

  o On the other hand, two-thirds of people now live in a country where lifetime fertility corresponds with zero growth.

- **Suggestions Given**

  o The report <u>cautioned against use of family planning as a tool for achieving fertility targets</u>.

    ▪ Family planning targets can lead to **gender-based discrimination** and harmful practices such as **prenatal sex determination leading to sex-selective abortion**.

  o Governments must introduce policies with gender equality and gender rights at their heart.

  o These may include: parental leave programmes, child tax credits, policies that promote gender equality in the workplace, and universal access to sexual and reproductive health and rights.

{For more about UNFPA refer The Recitals- November 2022}

Buy Mid-Day Meal Pulses From NAFED, Centre Tells States

- The Union Ministry of Education has written to State governments to procure pulses (chana dal) for the *Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN)* from NAFED.

- However, major states like Uttar Pradesh and West Bengal has rejected the Union Ministry's recommendation.

- West Bengal government has argued that ***during the Covid-19 pandemic, the chana supplied by NAFED was of extremely inferior quality, mixed with dust and gravel***.

- Uttar Pradesh government has argued that the ***state has plenty of local supply and hence is not in need to procure pulses from NAFED***.

About Mid-Day Meal Scheme:

- The Mid-Day Meal Scheme was started in India on 15th August 1995 as **'National Programme of Nutritional Support to Primary Education (NP-NSPE)'**.
- It was renamed as **'National Programme of Mid-Day Meal in Schools'** in October 2007, also known as the Mid-Day Meal (MDM) Scheme.
- Under the scheme, hot cooked meal per day is provided to all children (**studying in Class I to VIII**) enrolled in government schools, local body schools, government-aided schools, special training centres (STC), maktabs and madrasas supported under the Sarva Shiksha Abhiyan.

Objectives of Mid-Day Meal Scheme:

- To increase the enrolment in the schools of the children who belong to disadvantaged sections of the society.
- To increase the attendance of the children in government and government-aided schools.
- To retain the children studying in class I to VIII.
- To give nutritional support to the children studying in the elementary stage, especially in the drought-affected areas.
- To address hunger and malnutrition and improve socialisation among castes.

Features of Mid-Day Meal Scheme

- Every school should have a hygienic cooking infrastructure for hygienically cooked mid-day meals.

- The Food and Drugs Administration Department of the State can collect samples for ensuring the quality and nutritional value of the meals.

- *Food allowance is provided to the children when the cooked meals cannot be provided because of unforeseen circumstances* in the following manner:
  - Quantity of the food grains according to the entitlement of a child, and
  - Cooking cost prevailing in the respective state.

Calorie Intake prescribed per child per school day**:**

Calorie Intake	Primary School	Upper Primary School
Energy	450 calories	700 calories
Protein	12 grams	20 grams

Implementation and Funding

- Each State/UT has to set up State Steering-cum Monitoring Committees (SSMCs) at the State, District and Block level to oversee the implementation of this scheme, including establishing a mechanism to maintain the quality and nutritional standards of the meals.

- This is a **Centrally Sponsored Scheme**.
  - Hence, the cost is shared between the Centre (60%) and States (40%).

- **Nodal Ministry** – Ministry of Education

PM POSHAN Scheme

- In September 2021, Mid-Day Meal Scheme was renamed as **Pradhan Mantri POSHAN Scheme**.

- Major Changes introduced to the scheme are –

  - The scheme is proposed to be **extended to students studying in pre-primary or Bal Vatikas of Government and Government-aided primary schools.**

  - This is in addition to all the **11.80 crore** children from elementary classes covered under the Mid-Day Meal scheme.

  - The concept of '**TithiBhojan'** will be encouraged extensively.
    - TithiBhojan is a community participation programme in which people provide special food to children on special occasions/festivals.

  - Government is promoting development of **School Nutrition Gardens** in schools to give children first-hand experience with nature and gardening.
    - The harvest of these gardens will be used in the scheme to provide additional micro nutrients.

  - **Social Audit of the scheme** is made mandatory in all the districts.

  - Special provision is made for providing supplementary nutrition items to children in aspirational districts and districts with high prevalence of **Anemia**.

  - **Cooking competitions will be encouraged at all levels** right from village level to national level to promote ethnic cuisine and innovative menus based on locally available ingredients and vegetables.

  - Involvement of Farmers Producer Organizations and Women Self Help Groups in implementation of the scheme will be encouraged.

  - **Use of locally grown traditional food items** for a fillip to local economic growth will be encouraged.

About NAFED:
- Established in October 1958, it is registered under **Multi State Co-operative Societies Act, 2002.**
- NAFED is now **one of the largest procurements as well as marketing agencies for agricultural products in India.**

Objectives –
- To facilitate, coordinate and promote the marketing and trading activities of the cooperative institutions, partners and associates in agricultural, other commodities, articles and goods;
- To undertake purchase, sale and supply of agricultural, marketing and processing requisites, such as manure, seeds, fertilizer, agricultural implements and machinery, etc.;
- To act as warehouseman under the Warehousing Act and own & construct its own godowns and cold storages;
- **Agricultural farmers are the main members of NAFED,** who have the authority to say in the form of members of the General Body in the working of NAFED.

- Field visits for progress monitoring and inspections will be facilitated for students of eminent Universities/Institutions.

Kudmis' Agitation In Bengal And Jharkhand For Scheduled Tribe Status

The Kudmi community had been sitting on protest in the areas of West Bengal and Jharkhand. The community was demanding Scheduled Tribe (ST) status and the inclusion of their language in the Eighth Schedule of the Constitution.

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 and Backwardness.

About Kudmis:
- Kudmis are mainly a peasant community, with their population concentrated in the Junglemahal areas or the Chota Nagpur plateau of West Bengal, Jharkhand and Odisha.
- During the British rule, **they were in the Scheduled Tribe or Aboriginal community list.**
  - They were regarded as a primitive tribe, like the Munda, Oraon, Bhumij, Kharia, Santhal, and others.

When were they excluded from the ST list?
- After 1950, when the Scheduled Tribe list was prepared in independent India, Kudmis did not find a place on it.
- During the British rule, some affluent Kudmis wanted to elevate their social status as kshatriya in the Hindu caste hierarchy, while other members opposed this sanskritisation.
  - Sanskritisation refers to a process whereby people of lower castes collectively try to adopt upper caste practices and beliefs, as a preliminary step to acquire higher status.
- Based on this, the government argued that this community had become "Hinduized" and were no longer eligible for ST benefits.

Criticisms of Existing Criteria For Granting ST Status?

- **Obsolete criteria**
  - These set of criteria set were out by the Lokur Committee nearly 60 years ago and hence may have become obsolete considering the process of transition and acculturation over the time.
    - Acculturation is cultural modification of an individual, group, or people by adapting to or borrowing traits from another culture.

- **Condescending in nature**
  - Terms like primitive and the requirement of primitivity to be a characteristic of Scheduled Tribe indicates a condescending attitude by outsiders.
  - What we consider primitive is not considered by the tribals themselves.

- **Rigid and dogmatic approach**
  - Many experts believe that the committee followed a rigid and dogmatic approach while setting out the criteria.
  - E.g. – with respect to the geographical isolation criterion, they point out that as infrastructure development continued across the country, how can any community remain in isolation?

Steps Taken By The Government To Develop New Set Of Criteria

- The government task force on Scheduling of Tribes was constituted under the leadership of then Tribal Affairs Secretary, Hrusikesh Panda in February 2014.

- Based on this, the Tribal Affairs Ministry had, in June 2014, prepared a draft Cabinet note to overhaul the criteria and procedure for scheduling of new communities as STs.

- **The new criteria under the government's consideration included**:
  - **Socio-economic**, including educational, backwardness, vis-a-vis, the rest of the population of the State;

- - Historical geographical isolation which may or may not exist today;
  - Distinct language/dialect;
  - Presence of a core culture relating to life-cycle, marriage, songs, dance, paintings, folklore;
  - Endogamy, or in case of exogamy, marital relationship primarily with other STs
    - This criterion is for scheduling of a community as ST and not for determining ST status of an individual.

{For more about the Process of granting ST tag in India, refer The Recitals- September 2022}

Maternity Benefits To Adoptive Mothers

- The Supreme Court agreed to hear a petition challenging the constitutional validity of **Section 5(4) of the Maternity Benefit Act 1961**.

- This section states that a woman who legally adopts a child **below three months** old will be entitled to 12 weeks of maternity leave.

- A woman adopting a child <u>older than three months</u> gets **no benefits.**

- A Public Interest Litigation (PIL) was filed challenging Section 5(4) of the Act on grounds of being **"discriminatory" and "arbitrary"** towards adoptive mothers and orphaned children over three months.

  - **This is completely incompatible** to the object of the Maternity Benefit Act as well as the **Juvenile Justice Act**.

- The purported benefit of 12 weeks' maternity leave (compared to the 26 weeks') **fails to stand the basic scrutiny of Part III** (Fundamental Rights) of the Constitution, which is linked to the concept of non-arbitrariness.

Maternity Benefits (Amendment) Act 2017

- It amended Section 5 of the erstwhile Act **to allow 26 weeks of paid leave after childbirth**, although **only to biological mothers**.

- The amendment inserted **Section 5(4)** which said that adoptive or surrogate (**commissioning**) mothers legally adopting a child below three months will be entitled to a maternity benefit period of **12 weeks** from the date the child is handed over to the mother.

MATERNITY BENIFIT ACT 1961

- It was originally passed **to regulate the employment of women** in "certain establishments" for the period **before and after childbirth** and to provide for maternity benefit and certain other benefits.
- Originally, it applied **to every establishment** being a factory, mine or plantation.
- In 1973, it was extended to **"any such establishment belonging to the Government"** and "every establishment where persons are employed for the exhibition of equestrian, acrobatic and other performances."
- **No employer shall knowingly employ a woman** in any establishment during the **six weeks immediately following the day** of her delivery or her miscarriage.
- **The right to paid maternity leaves** was also given, although the period of such leave could not exceed 12 weeks.
- **For availing maternity benefits,** a woman is mandated to work in the establishment for at least 160 days in the 12 months immediately preceding the date of her expected delivery.
- Violating provisions of the Act could result in 3 months' punishment, with or without a fine.

- Further, it inserted provisions **to allow women to work from home under Section 5(5)**, where the nature of work assigned to a woman is of such nature.
  - The employer may allow her to do so after availing of the maternity benefit for such period.

- Under the amended Act, **every establishment having fifty or more employees** shall have the facility of **creche** and the employer must allow four visits a day to the creche as well as rest intervals for her.

Criticisms of Amended Act

- Women in the **unorganised** sector cannot avail maternity benefits.
- Even five years after the amendment Act was passed, it was **yet to deliver a positive impact on job opportunities for women**.
- **The women's participation dropped** in more than five out of 10 sectors (surveyed by a human resource organisation) since the implementation of the Act.
- After maternity, **women face several challenges** - 30% cited wage cuts followed by resistance or lack of support from family and access to childcare.

Support for Poor Prisoners Scheme

- The Ministry of Home Affairs (MHA) has decided to launch **a special scheme to provide financial support to poor** people who continue to be in jails because they are unable to afford the penalty or the bail amount.
- This will **enable poor prisoners**, the majority of whom belong to socially disadvantaged or marginalised groups with lower education and income level, **to get out of prison and decongest prisons.**

Share of Undertrial Burgeoning in Indian Jails

- According to the National Crime Records Bureau (NCRB), among the 5,54,034 inmates across India's prisons (at the end of 2021), **77.1% were under-trials** and 22.2% were convicted by a court of law.
- According to the World Prison Brief, India currently has the **sixth highest share of pre-trial detainees** (after Liechtenstein, San Marino, Haiti, Gabon and Bangladesh) in the world.
- This large share of the under-trial prison population is not a recent phenomenon, but has **persisted for decades now** (57.6% in 1975).
- India's justice processes have been infamous for the **slow dispensation of cases** due to
  - The denial of pretrial release to criminal defendants and the **excessive duration** of criminal proceedings.
  - Additionally, the **inability of several (poor) inmates** to pay for their bail bonds means they end up languishing in prisons even when they could be out.
- **The COVID-19 pandemic** further decelerated judicial processes violating human rights norms and constitute a **grievous affront to justice.**

Steps Taken By Govt. To Address The Issue Of Undertrials

- Insertion of **Section 436A** in the Code of Criminal Procedure (CrPC)
  - It provides that in a case where punishment for the offence cannot be death and a person has undergone detention for a period extending up to one-half of the maximum period of imprisonment specified for the offence, he shall be released on bail.
- Insertion of a new chapter XXIA '**Plea Bargaining**' in the CrPC
- **Free legal aid** is being provided to poor prisoners through the **Legal Services Authority** at various levels

About The Support for Poor Prisoners Scheme

- Under the scheme, the Government of India will **provide financial support to States** in order to extend relief to those poor prisoners who are unable to afford the penalty or the bail amount.
- To further strengthen the process, **technology driven solutions will be put in place** to ensure that benefits reach the poor prisoners -
  - Reinforcing the **E-prisons platform**;
  - Strengthening of **District Legal Services Authority** and
  - **Sensitisation and capacity building of stakeholders** to ensure that quality legal aid is made available to needy poor prisoners

Stand-Up India Scheme

As much as Rs 40,710 crore sanctioned to over 0.18 million accounts under the government's flagship Stand Up India Scheme during the last seven years since its inception. The scheme has been extended up to 2025.

Stand Up India Scheme

- It was launched on April, 2016 to promote entrepreneurship at grassroot level focusing on economic empowerment and job creation. The scheme has been extended till 2025.
- **Aim:** The scheme aimed to promote entrepreneurship amongst **women and SC/ST** to help them in starting a _greenfield enterprise_ in manufacturing, services or the trading sector and activities allied to agriculture.
- **Objective:** Facilitate bank loans between Rs.10 lakh and Rs.1 crore to at least one Scheduled Caste/ Scheduled Tribe borrower and at least one woman borrower per bank branch of Scheduled Commercial Banks.
- **Eligibility**
  - SC/ST and/or women entrepreneurs, above 18 years of age;
  - Loans under the scheme is available for only green field project.
    - Green field signifies, in this context, the first-time venture of the beneficiary in the manufacturing, services, agri-allied activities or the trading sector.
  - In case of non-individual enterprises, 51% of the shareholding and controlling stake should be held by either SC/ST and/or Women Entrepreneur.
  - Borrowers should not be in default (failure to repay an earlier loan) to any bank/financial institution.

Mode of Access: The scheme, which covers all branches of Scheduled Commercial Banks, can be accessed in three potential ways:

  - Directly at the branch.
  - Through Stand-Up India Portal.
  - Through the Lead District Manager (LDM).

Achievements of Stand Up India Scheme

- Stand Up India initiative has played an important role in empowering the SC/ ST communities and ensuring women empowerment.
- 90% of the loan applications and 86.3 per cent of the loan amount have been sanctioned so far.
- **Amount sanctioned since the inception of this scheme**
  - Rs 40,710 crore sanctioned to over 0.18 million accounts under the scheme since its inception.
    - Rs 33,152.43 crore was sanctioned to 0.14 million accounts of women while Rs 5,625.5 crore was sanctioned to 26,889 SC accounts.
    - Rs 1,932.5 crore was sanctioned to 8,960 accounts of ST members.
- **Women Empowerment**
  - Of the funds sanctioned till March 21, 2023, about 80 per cent of the loans have been given to women entrepreneurs.
  - So far, more than 1 lakh women promoters have benefitted from this Scheme.
- **Funding the unfunded**
  - The scheme is based on the third pillar of National Mission for Financial Inclusion namely "Funding the unfunded".
  - It has ensured availability of seamless credit flow from branches of Schedule Commercial Banks to SC/ST and women entrepreneurs.
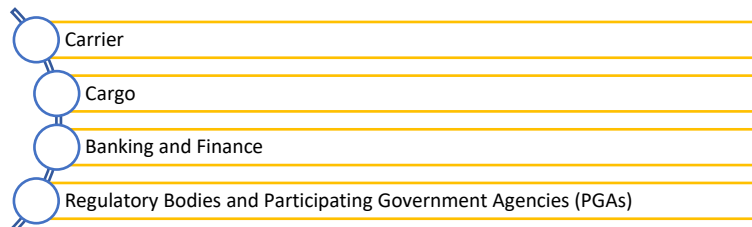
ECONOMY AND INFRASTRUCTURE

Sagar Setu App

- The Ministry of Ports, Shipping and Waterways has launched the App version of **National Logistics Portal (Marine)** called **Sagar Setu**.

- The app covers <u>features</u> like *Login Module, Service Catalogue, Common Application Format, Letter of Credit, Bank Guarantee, Certification, and Track & Trace etc.*

- It will **provide real-time information** of activities that are generally not in reach of the importer, exporter, and customs broker including vessel-related information, gate, container freight stations and transactions on fingertips.

- It also **enables digital transactions for payments** required for the clearance process of import and export like container freight station charges, shipping line charges, transportation charges, etc.

Benefits for Traders	Benefits for Service Providers
- Improve convenience with reduced turnaround time for approval and compliances. - Increase visibility of operations and tracking.	- Help in tracking of records and transactions offered - Receive notification of service requests.

National Logistics Portal (Marine) (NLP)

- NLP is a one-stop platform aimed at connecting all the stakeholders of the logistics community using IT, to improve efficiency and transparency.

- It aims to <u>reduce regulatory complexities and enhance the ease of doing business</u> by moving towards user-friendly paperless trade.

- The activities of NLP Marine are categorized into **four distinct verticals** viz.

  - Carrier
  - Cargo
  - Banking and Finance
  - Regulatory Bodies and Participating Government Agencies (PGAs)

- NLP will be a **single window for all trade processes of the logistics sector** spread across the country *covering all modes of transport in the waterways, roadways, and airways.*

- It is a one stop marketplace where all logistic stakeholders are integrated for easier, speedier & competitive services thereby promoting trade and growth.

- This will enrich the user experience through end-to-end tracking of the shipment with notifications at each stage, seamless exchange of documents, and the ability to securely transact with transparency and speed.

State Energy Efficiency Index 2021-22

- The Ministry of Power recently released the **State Energy Efficiency Index (SEEI) 2021-22**, at the RPM (Review, Planning and Monitoring) meeting of States and State Utilities. SEEI 2021-22 is the **fourth edition** of the index.

- **Launched in 2018**, the index is developed by the **Bureau of Energy Efficiency (BEE)**, in association with **Alliance for an Energy-Efficient Economy (AEEE)**

- SEEI is designed to *help track progress on state goals for energy savings and reduction in emission intensity.*

- It improves *data collection, enables cross-state collaboration, and develops energy efficiency program ideas.*

- It helps states identify areas for improvement, learn from best practices, and adopt an economy-wide approach to energy efficiency implementation.

- By prioritizing energy efficiency, it aims at driving decarbonization efforts and achieve a more sustainable future.

Methodology

- SEEI 2021-22 has an updated framework of **50 indicators** aligned with national priorities. Programme specific indicators have been included this year to track outcomes and impacts of state-level energy efficiency initiatives.

- In SEEI 2021-22, the states and UTs are categorized as **Front runner (>60 points), Achiever (50- 60), Contender (30-49.5), and Aspirant (<30)** based on their total scores.

- Furthermore, to enable **peer-to-peer comparison** of performance, all the states and UTs are classified into **four groups** based on their **total final energy consumption (TFEC)**:
    o Group 1 (>15 million tonnes of oil equivalent (MTOE);
    o Group 2 (5-15 MTOE);
    o Group 3 (1-5 MTOE);
    o Group 4 (<1 MTOE).

Key Findings

- **Five states** - Andhra Pradesh, Karnataka, Kerala, Rajasthan and Telangana - are in the **Front Runner** category (>60 points).

- **Four states** - Assam, Haryana, Maharashtra, and Punjab - are in the **Achiever category** (50-60 points).

- The **top-performing states in each group** are Karnataka (Group 1), Andhra Pradesh (Group 2), Assam (Group 3), and Chandigarh (Group 4)

- Telangana and Andhra Pradesh showed the **most improvement** since the last index.

Recommendations

- It outlines the following recommendations to help states drive change in Energy Efficiency which will contribute towards the fulfillment of SDGs and NDC:
    o Enable fiscal assistance for energy efficiency in the focus sectors.
    o Develop institutional capacity in states and UTs to address emerging needs and challenges in energy efficiency implementation.
    o Enhance cross-functional collaborations across financial institutions, energy service companies, and energy professionals in large-scale energy efficiency implementation in states.
    o Mainstream energy data reporting and monitoring across sectors.

Nifty REITs and InvITs Index

- NSE Indices Ltd, a subsidiary of National Stock Exchange (NSE), has launched India's first ever Real Estate Investment Trusts (Reits) and Infrastructure Investment Trusts (InvITs) Index.

- Reits and InvITs are investment vehicles that own revenue-generating real estate and infrastructure assets, respectively.

- Reits and InvITs can be an option for investors looking for regular income generation through a diversified portfolio of real estate or infrastructure assets.

- The new index— Nifty Reits and InvITs index—aims to track the performance of Reits and InvITs that are publicly listed and traded on the NSE.
- The weights of securities within the index are based on their **free-float market capitalisation** <u>subject to a security cap of 33% each</u>. The average weight of top 3 securities is capped at 72%.
- The Nifty REITs and InvITs Index has a **base date of July 1, 2019**, and a **base value of 1,000**. The index will be reviewed and rebalanced on a quarterly basis.
- The top constituents of Nifty Reits & InvITs index include Embassy Office Parks Reit (32.9% weight), Powergrid Infrastructure Investment (20.2%), Mindspace Business Parks Reit (15.3%), India Grid Trust (15.3%).
- The index has 57.5% weight to Real estate, 35.6% to power, and 6.8% to services

{Please refer June 22 and October 22 edition of The Recitals, for more details on REIT and InvIT}

SECI Gets Miniratna Status

- Solar Energy Corporation of India Limited (SECI) has been given the status of **Miniratna Category-I Central Public Sector Enterprise (CPSE)**.
- Incorporated in **2011**, SECI is the **primary implementing agency of the Ministry of New and Renewable Energy** for Renewable Energy (RE) schemes/projects towards fulfillment of India's international commitments.
- SECI is also active in setting up of projects through its own investments as well as for other public sector entities as Project Management Consultant (PMC).
- Till date, SECI has awarded RE project capacities of over **56 GW**. SECI enjoys the **highest credit rating of AAA** by ICRA.
- It has played a central role in the rapid increase of RE generation capacity in the country and has contributed towards the nation's climate commitments, carbon emission reduction strategies and sustainable energy transition.
- SECI has achieved this feat in a short period of time due to its consistent performance, speed and flexibility in operations.

Criteria for Grant of Miniratna Status to CPSEs

- **Miniratna Category-I status**: - The CPSEs which have made profit in the last three years continuously, *pre-tax profit is Rs.30 crores or more* in at least one of the three years and have a positive net worth are eligible to be considered for grant of Miniratna-I status.
- **Miniratna Category-II status**: - The CPSEs which have made profit for the last three years continuously and have a positive net worth are eligible to be considered for grant of Miniratna-II status.
- Miniratna CPSEs should have not defaulted in the repayment of loans/interest payment on any loans due to the Government.
- Miniratna CPSEs shall not depend upon budgetary support or Government guarantees.

SATHI Portal

- The Ministry of Agriculture and Farmers Welfare (MoA&FW) recently launched the **SATHI (Seed Traceability, Authentication and Holistic Inventory)** Portal and Mobile App.
- It has been developed by the <u>National Informatics Centre (NIC)</u> in collaboration with the (MoA&FW) on the theme of **Uttam Beej – Samriddh Kisan**.

- It is a centralized online system for <u>seed traceability, authentication and inventory</u> designed to deal with the challenges of *seed production, quality seed identification and seed certification*.

- Inferior quality or spurious seeds affect the growth of agriculture. This causes loss to the farmers and also affects the agricultural production of the country.

- Thus, it was important to devise a system so that the market of spurious seeds is checked and quality seeds reach the farmers.

- SATHI portal will ensure quality assurance system, identify the source of seed in the seed production chain (through a QR code).

- The system will consist of integrated **7 verticals of the seed chain** - *Research Organisation, Seed Certification, Seed Licensing, Seed Catalogue, Dealer to Farmer Sales, Farmer Registration and Seed DBT.*

- Seeds with valid certification can only be sold by valid licensed dealers to centrally registered farmers who will receive subsidy through DBT directly into their pre-validated bank accounts.

Advance Pricing Agreements

- The Central Board of Direct Taxes (CBDT) has entered into a record 95 Advance Pricing Agreements (APAs) in FY 2022-23 with Indian taxpayers.

- This year, CBDT recorded the highest ever APA signings in any financial year since the launch of the APA programme in 2012.

- This includes *63 Unilateral APAs (UAPAs) and 32 Bilateral APAs (BAPAs).* With this, the total number of APAs since inception of the APA programme has gone up to 516, comprising 420 UAPAs and 96 BAPAs.

- The BAPAs were signed as a consequence of entering into Mutual Agreements with India's treaty partners namely Finland, UK, US, Denmark, Singapore, and Japan.

- An APA is <u>an agreement between a tax payer and tax authority determining the **transfer pricing methodology** for pricing the tax payer's international transactions for future years</u>.

- The aim of the **APA scheme** is to **provide clarity and predictability** to taxpayers regarding transfer pricing by <u>outlining the methods for pricing and determining the arm's length price of international transactions in advance for up to five years.</u>

- Taxpayers can also opt to apply the APA to the previous four years, resulting in tax certainty for a total of nine years. Additionally, signing bilateral APAs can protect taxpayers from anticipated or actual double taxation.

- This program has significantly contributed to the Indian government's mission of promoting ease of doing business, particularly for multinational enterprises with numerous cross-border transactions between their group entities.

Types of APA

- **Unilateral APA:** An APA that involves only the tax payer and the *tax authority of the country where the tax payer is located*.

- **Bilateral APA (BAPA):** An APA that involves the tax payer, associated enterprise (AE) of the tax payer in the foreign country, tax authority of the country where the tax payer is located, and the foreign tax authority.

- **Multilateral APA (MAPA):** An APA that involves the tax payer, <u>two or more AEs</u> of the tax payer in different foreign countries, tax authority of the country where the tax payer is located, and the tax authorities of AEs.

Central Board of Direct Taxes (CBDT)

- The Central Board of Direct Taxes is a **statutory authority** functioning under the **Central Board of Revenue Act, 1963**. CBDT is a part of **Department of Revenue in the Ministry of Finance**.

- On one hand, CBDT provides essential inputs for policy and planning of direct taxes in India, at the same time it is also responsible for administration of direct tax laws through the Income Tax Department.

- The CBDT is headed by Chairman and comprises six members, all of whom are ex-officio Special Secretary to Union Government.

Global Unicorn Index

- According to the Global Unicorn Index 2023 by Hurun, Swiggy, a foodtech platform, Dream11, a fantasy gaming company, and BYJU'S, an ed tech decacorn are India's top unicorns.

- A **unicorn** is a term used to describe a privately held startup company valued over $1 billion.

- As per the report India continues to be the world's third-largest country with the highest number of unicorns.

- There are currently 1,361 unicorns globally—up 303 from last year. The US leads with 666 unicorns—an increase of 179 and representing 49% of the world's total unicorn count—while China comes second with 316 unicorns.

- The number of Indian unicorns established outside of India is higher than those located within India.

- India has a total of 138 unicorns, out of which 70 were established by Indian co-founders but have their headquarters located outside India, while 68 are based in India.

- Hurun's report also revealed that **India ranks third** in terms of the number of **gazelles**, which are startups established in the 2000s and valued at over $500 million, not yet listed, and likely to become unicorns within three years.

- However, when it comes to the Hurun Global 500 companies, which is a list of the most valuable non-state-controlled businesses globally, India ranks fifth.

- According to the report, China and India have a higher proportion of gazelles and unicorns, which is expected to result in a higher number of Hurun Global 500 companies over the next five years.

- Conversely, countries such as France, Canada, and Australia, with a lower proportion, are likely to lose their positions on the Hurun Global 500 list.

India Handmade Portal

- The Ministry of Textiles has developed an E-Commerce portal called **India handmade portal** for *handicrafts and handloom sector.*

- India is well-known for its rich cultural heritage and traditional crafts, which include handloom and handicraft products.

- Handloom refers to the process of weaving cloth using a manually operated loom, while handicrafts are items made by skilled artisans using traditional techniques.

- The aim is to provide products from more than 35 Lakh Handloom weavers & 27 Lakh Handicraft artisans directly to the consumers.

- The portal offers a wide range of products, including clothing, home decor, jewellery, accessories, and more. All the products are handmade by skilled artisans.

- Many of the products sold on the portal are made using eco-friendly and sustainable materials, making them a great choice for those who are conscious about their impact on the environment.

- Overall, it is a one-stop-shop for all things handmade in India and a great way to discover and support Indian artisans and their crafts.
- It also provides free handholding of sellers from registration till order fulfilment to ensure ease of doing business.

Significance

- With the help of this virtual Indian store, the artisans will get remunerated fairly with no middlemen to manipulate prices.
- The portal will also provide an opportunity to total 62 Lakh weavers and artisans become future e-entrepreneurs.
- Furthermore, city dwelling urban Indians will get access to 100% authentic & best handcrafts products emerging straight from the heart of India.

Indian Handloom Industry	Handicraft Industry
• The operations of the handloom industry in India are primarily household based. It is one of the largest, but unorganized, economic activity in the country. • It provides employment directly and indirectly to over 43.31 lakh weavers from rural and semi-urban areas, with as much as 77% of the adult weavers and allied workers in the sector being women. • Strengths of the sector include minimal use of capital and power, environment-friendly production processes and flexibility to innovate and offer products as per market requirements. • As per the Third Handloom Census conducted in 2009-10, nearly 27.83 lakh handloom households are engaged in weaving and allied activities, out of which 87% are in rural areas and the remaining 13% are in urban areas. • A vast majority of the handlooms are located in the North Eastern Region (NER) of India, which accounts for nearly 65.2% of the total handlooms that are operational in the country. • NER accounts for 49.8% of the total weavers in the country with Assam leading the share of handloom workers. • There are various popular handloom products which have Geographical Indication (GI) viz. Muga silk (Assam), Bhagalpur Silk (Bihar), Patan Patola (Gujarat), Chanderi Sarees (Madhya Pradesh), Paithani sarees and Fabrics (Maharashtra), Kancheepuram silk (Tamil Nadu), Mysore silk (Karnataka).	• Handicrafts are items that are constructed by hand using simple tools rather than mass production methods and equipment. • It is one of the most important sectors in the Indian economy employing more than seven million people. • The country produces wood ware, art metal wares, hand printed textiles, embroidered goods, zari goods, imitation jewellery, sculptures, pottery, glassware, agarbattis, etc. • Indian handicraft industry is dominated by female artisans with over 56% of the total artisan. • The country has 744 handicraft clusters employing nearly 212,000 artisans and offering over 35,000 products. • Surat, Bareilly, Varanasi, Agra, Hyderabad, Lucknow, Chennai, and Mumbai are among the major clusters.

Trade Statistics

- Ministry of Commerce and Industry recently released India's trade data for fiscal year **2022-23.**
- Total goods exports in 2022-23 rose 6.03% to $447.46 billion, while the import bill increased by a steeper 16.5% to $714 billion.

- The goods trade deficit rose almost 40% to over $266 billion in 2022-23, compared to $190 billion in 2021-22.
- However, using estimates for Services exports during March for which final data will be available in May, the Ministry pegged the _total trade deficit for the year at $122 billion, 46% higher than the $83.5 billion gap in 2021-22._

Status of Imports

- While petroleum imports jumped about 30% to nearly $210 billion in 2022-23, coal imports grew at a faster 57% to touch almost $50 billion.
- Gold imports, on the other hand, fell around 24% to $35 billion as global prices for the metal surged and the Rupee turned weaker.
- Fuelled by discounted oil shipments, India's imports from Russia grew almost 370% to over $46 billion in 2022-23.
- Russia's share in import increased from 1.6% in 2021-22 to 6.5% last year, making it the fourth largest import source nation for India, behind **China, UAE and USA.**
- China's **share of goods imports** dipped to 13.8% in the year gone from 15.4% in 2021-22. However, imports from the country still grew 4.2% to reach $98.5 billion last year.

Status of Exports

- India's uptick in outbound shipments was **largely led by petroleum, up 27% to $94.5 billion**, followed **by electronics goods that rose 7.9% to $23.6 billion**. Petroleum exports now account for 21.1% of total exports, up from 16% in 2021-22.
- The other three of India's top five export items registered insignificant growth - Rice (up 1.5%), chemicals (1%), and drugs and pharmaceuticals (0.8%).
- Engineering goods, India's mainstay in goods exports in recent years, shrank 5.1% to $107 billion, bringing down their share in total exports from $26.6% to 23.9%.
- **Non-oil exports,** in fact, contracted 0.5%, and if electronics exports were excluded too, goods shipments were 2.8% lower than 2021-22, which economists called a red flag.
- Important segments like engineering and gems and jewellery witnessed negative growth and a further slowdown is expected in exports.

Export Destinations

- The **USA remained India's top export destination**, followed by **UAE**, while **Netherlands** emerged as the third largest goods buyer, underlining China to the fourth position in 2022-23.
- Exports to China fell 28% to just $15.3 billion and Indian shipments to China now account for just 3.4% of total exports, from over 5% in 2021-22.
- Netherlands' share of Indian exports jumped from under 3% in 2021-22 to 4.7%, recording a significant 66.6% increase year-on-year.
- Bangladesh and Hong Kong remained in India's top 10 export markets, although the value of shipments contracted by 27.8% and 9.9%, respectively.

Future Outlook

- Weakening external demand amid the global slowdown in the second half last year, along with the moderation in global commodity prices hurt non-oil exports and these concerns are set to worsen this year.
- This could lead to a deeper contraction in merchandise exports in 2023-24, affecting manufacturing output and dragging down GDP growth.

- Moreover, with the Rupee seeing an appreciating tendency, the <u>currency advantage would be weaker for exporters.</u>

- Imports may slow a little as domestic growth slows down but could keep putting pressure on the deficit that could increase if oil prices increase.

Logistic Performance Index 2023

- The **World Bank** recently released the **Logistic Performance Index (LPI) 2023.**

- The LPI covers **139 countries and** <u>measures the ease of establishing reliable supply chain connections</u> and the <u>structural factors that make it possible, such as the quality of logistics services, trade and transport-related infrastructure, and border controls</u>.

- The survey report is usually released every two years, but it was delayed due to difficulties in conducting the survey during 2020-21.

- Countries are given a **score between 0 and 5 on six factors**, which have remained the same since its inception in 2007. The final score is an average of these numbers.

- The **six factors** are: *customs, infrastructure, shipments, competence and quality, timeliness, and tracking and tracing.*

Key Findings

- Singapore is the logistics hub with an overall LPI score of 4.3 out of 5.

- The top 10 countries include mostly rich European countries, Canada, and China's special administrative region of Hong Kong with their score falling between 4 and 4.3, and 4.1 on an average.

- **India** was ranked 44th on the index in 2018 and has now **climbed to 38th in the 2023** listing, due to significant investments in logistics infrastructure and technology. India **scored 3.4** out of a maximum possible score of 5 on the 2023 index.

- Timeliness was a problem on a global scale due to the lingering effect of the pandemic on the supply chain.

- The report quotes modernisation and digitalisation as a reason for emerging economies, like India, to leapfrog advanced countries.

- The average dwell time for containers between May and October 2022 was three days for India and Singapore, much better than in some of the industrialised countries. The dwell time for the U.S. was seven days and for Germany, it was 10 days.

  ➤ Dwell time is how long a vessel spends at a specific port or terminal. It may also refer to the amount of time that a container or cargo spends at a port or terminal before being loaded onto a vessel or after being unloaded from a vessel.

- Shipping container vessels operate on schedules and delays in any particular port are felt across the service. The shorter the dwell time, the lower the vessel and marine-terminal operating costs.

India's high logistics costs are impacting its competitiveness adversely

Logistics cost, as a % of GDP

India	14%
BRICS average	11%
Europe	10%
China	9%
US	8%

Source: CII & Arthur D. Little report (2020); Motilal Oswal Financial Services • Get the data

mint

Measures Taken In India

- The government has launched the **PM Gati Shakti initiative**, a National Master Plan for multimodal connectivity, in 2021, to reduce logistics cost and boost the economy by 2024-25.

- In 2022, the Indian government launched the **National Logistics Policy (NLP)** to ensure the required efficiency in the logistics sector.

- The country has set a goal of raising its LPI score to rank among the top 25 by the year 2030. The current average score of these 25 nations is 3.92.
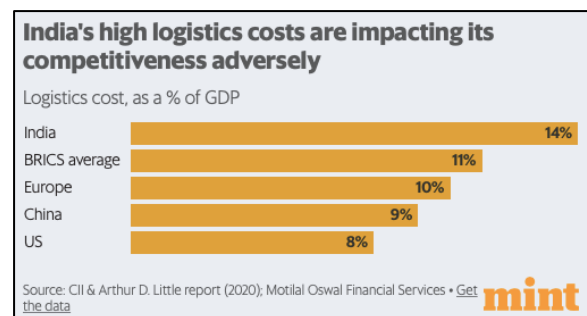
- One of the other primary goals of the country's National Logistics Policy is to lower logistics expenses, which account for 13-14% of the country's GDP compared to only 8-10% in developed nations.

- The government has also invested in **trade-related soft and hard infrastructure** connecting port gateways on both coasts to the economic poles in the remote areas.

- Technology has been a critical component of this effort, with implementation under a public-private partnership of a supply chain visibility platform, which contributed to remarkable reductions of delays.

- NICDC Logistics Data Services Limited applies radio frequency identification tags to containers and offers consignees end-to-end tracking of their supply chain.

Dabba Trading

- The National Stock Exchange (NSE) has issued a string of notices naming entities involved in 'dabba trading'.

- It also cautioned retail investors to not subscribe (or invest) using any of these products offering guaranteed returns in the stock market as they are prohibited by law.

- It added that the entities are not recognized as authorised members by the exchange.

Dabba Trading

- Dabba (box) trading also known as **box trading or bucket trading**, refers to **informal trading that takes place outside the purview of the stock exchanges**.

- Traders bet on stock price movements without incurring a real transaction to take physical ownership of a particular stock as is done in an exchange. It is basically a form of gambling centred around stock price movements.

- For example, an investor places a bet on a stock at a price point, say ₹1,000. If the price point rose to ₹1,500, he/she would make a gain of ₹500. However, if the price point falls to ₹900, the investor would have to pay the difference to the dabba broker.

- Thus, the broker's profit equates the investor's loss and vice-versa. The equations are particularly consequential during bull runs or bear market.

- The primary purpose of such trades is to **stay outside the purview of regulatory mechanism**, and thus, **transactions are facilitated using cash** and the mechanism is operated using unrecognized software terminals.

- Other than this, it could also be facilitated using informal or kaccha (rough) records, sauda (transaction) books, challans, DD receipts, cash receipts alongside bills/contract notes as proof of trading.

- Dabba trading is recognized as an **offence under Section 23(1) of the Securities Contracts (Regulation) Act (SCRA), 1956** and upon conviction, can invite imprisonment for a term extending up to 10 years or a fine up to ₹25 crore, or both.

Reasons for Dabba Trading's Appeal

- Since there are no proper records of income or gain, it **helps dabba traders escape taxation**. They would not have to pay the Commodity Transaction Tax (CTT) or Securities Transaction Tax (STT) on their transactions.

- Other than taxation, aggressive marketing, ease of trading (using apps with quality interface) and lack of identity verifications also trap the investors.

- Furthermore, depending on the individual's trading profile, observable volumes and trends, brokers keep their fees and margins open to negotiation as well.

Issues

- In dabba trading the primary risk is the possibility that the broker defaults in paying the investor or the entity becomes insolvent or bankrupt.

- Clients on entering the dabba ecosystem, are harassed by the broker's recovery agents for default payments and refused payments upon profit.

- Being outside the regulatory purview implies that investors are without formal provisions for investor protection, dispute resolution mechanisms and grievance redressal mechanisms that are available within an exchange.

- The use of cash also means that they are outside the purview of the formal banking system. All of it combined results in a loss to the government exchequer.

- Since all activities are facilitated using cash, and without any auditable records, it could potentially encourage the growth of 'black money' along with perpetuating a parallel economy.

- This could potentially translate to risks of money laundering and criminal activities.

Revamped CGTMSE

- The Credit Guarantee Scheme for Micro & Small Enterprises (CGTMSE) has been revamped recently, with an **additional corpus of Rs 9,000 crore**. This will enable additional collateral-free guaranteed credit of Rs 2 lakh crore.

- Further, there will be a **reduction of annual guarantee fee** for loans up to Rs. 1 crore from a peak rate of 2% per annum to as low as 0.37% per annum. This will reduce the overall cost of credit to the Micro & Small Enterprises (MSEs) to a great extent.

- The **limit on ceiling for guarantees has been enhanced** from Rs. 2 crore to Rs. 5 crore.

- For settlement of claims in respect of guarantees for loan outstanding up to Rs. 10 lakh, initiation of legal proceedings will no longer be required. Previously it was 5 lakhs.

Credit Guarantee Scheme for Micro & Small Enterprises (CGTMSE)

- It was launched in 2000. CGTMSE is jointly set up by **Ministry of MSME and Small Industries Development Bank of India (SIDBI)** to accelerate flow of institutional credit to Micro & Small Enterprises (MSEs).

- Both the existing and the new enterprises are eligible to be covered under the scheme.

- Credit Guarantee Scheme (CGS) was launched to strengthen credit delivery system and to facilitate flow of credit to the MSE sector, create access to finance for unserved, under-served and underprivileged.

- Thus, making availability of finance from conventional lenders to new generation entrepreneurs.

- CGTMSE has been instrumental in providing guarantee cover to collateral and/or third party guarantee free credit facilities extended by eligible Member Lending Institution [MLIs] to MSEs.

- CGTMSE has created a new landmark by touching the milestone figure of approving guarantees worth `1 lakh crore during FY 2022 - 23.

Green Deposits

- RBI has announced a framework for accepting 'green deposits' by banks and deposit-taking non-banking finance companies (NBFCs).

- The framework will come into effect from June 1, 2023.

- The green deposits are interest bearing deposits which shall be **denominated only in Indian Rupees** and the proceeds will be allocated to eligible green activities/projects.

- The central bank has identified **nine sectors** in which the proceeds from these green bonds must be used.

- They are _renewable energy, energy efficiency, clean transportation, climate change adaptation, sustainable water and waste management, pollution prevention and control, green buildings, sustainable management of living natural resources and land use, and terrestrial and aquatic biodiversity conservation._

- Some of the sectors which are **excluded** are nuclear power generation, direct waste incineration, alcohol, weapons, tobacco, gaming, palm oil industries, hydropower plants larger than 25 MW, among others.

- The RBI regulated entities (RE) have been told to put in place a comprehensive board-approved policy on green deposits, laying down all aspects in detail for the issuance and allocation of such deposits.

- A copy of the policy should be made available on the website of the Regulated Entities (REs).

- The allocation of funds raised through green deposits by REs during a financial year shall be subject to an _independent Third-Party Verification/Assurance_ which shall be done on an annual basis.

- The third-party assessment should not absolve the RE of its responsibility regarding the end-use of funds.

Qualified Stock Brokers

- The National Stock Exchange (NSE) has issued a list of 15 designated Qualified Stock Brokers (QSBs), including Zerodha Broking, HDFC Securities, ICICI Securities.

- Sebi defines QSBs as entities who, because of their size and scale of operations, can likely impact investors and the securities market, as well as governance and service standards.

- Due to their size, trading volumes, and amount of clients' funds handled by them, QSBs occupy a significant position in the Indian securities market.

- The stock market activity is concentrated to these designated stock brokers. The failure of such stock brokers has the potential to cause disruption in the services they provide to large numbers of investors, causing widespread impact in the securities market.

Designation Methodology

- A stock broker is designated as QSB on the basis of **four parameters** — _number of active clients, total available assets of clients, trading volumes. and end-of-day margin obligations._

- All stock brokers with a **total score greater than or equal to five** on these four parameters are identified as QSBs.

- SEBI may include more stock brokers in its list of designated QSBs by considering additional parameters such as _compliance, grievance redressal scores and proprietary trading volumes_.

- The scores are to be calculated on an annual basis (financial year) and the revised list of QSBs is released jointly by stock exchanges, in consultation with Sebi.

Additional Regulatory Requirements for QSBs

- A stock broker designated as a QSB is required to meet enhanced obligations and discharge responsibilities to ensure appropriate governance structure, appropriate risk management policy and processes.

- Scalable infrastructure, appropriate technical capacity, framework for orderly winding down, robust cyber security framework, and investor services including online complaint redressal mechanism should also be in place.

- The risk management framework of QSBs should have measures for carrying out surveillance of client behaviour through analysing the pattern of trading done by them and detection of any unusual activity.

- QSBs will have to red flag any unusual client behaviour to stock exchanges and take necessary measures to prevent fraudulent activity in the market.

HP-DAM and PUShP

- To ensure the availability of power during the peak demand season, the Central Government has launched a **High Price Day Ahead Market (HP-DAM)** and **Surplus Power Portal (PUShP).**

- Last year, the Ministry of Power noted that on some days prices on electricity exchange had gone up to ₹20, and had given directions to the Central Electricity Regulatory Commission (CERC) to cap prices at ₹12 on the exchange, so that there is no profiteering.
  - The cap was imposed from April 2022 in the Day Ahead Market & Real Time Market, and then in all segments from May 2022. The move rationalized the price for buyers.

- Because of the high prices of gas in the international market, the electricity made by using gas was expensive – more than Rs 12 per unit – and this capacity could not be sold on the market.

- Similarly, the **imported coal-based plants** and the Renewable Energy stored in battery-energy storage systems could not be brought into operation, as their generation cost was high.

- It is expected that in 2023 demand will be much higher than last year therefore, gas-based plants and imported coal-based plants will need to be scheduled.

- Therefore, a separate segment has been created for those generation systems where the cost of generating power, from gas, imported coal and renewable energy plus storage, may cross ₹12. This separate segment is called **HP DAM.**

- HP DAM is part of the overall strategy to ensure that all available power capacity is utilised for supply of power to consumers.

- Only those generating capacities which have cost of producing power of more than ₹12 per unit would be allowed to operate in HP-DAM.

- If the cost of production is less than ₹12, the generators will have to offer power in the **Power Exchange's Integrated Day Ahead Market (I-DAM)** only with a ceiling price of Rs12.

Letter of Comfort

- A letter of comfort does not imply that the parent company guarantees repayment of the loan being sought by the subsidiary company. It merely gives reassurance to the lending institution that the parent company is aware of the credit facility being sought by the subsidiary company and supports its decision.
  - A Letter of Comfort (LoC) is a letter issued to a **lending institution** by a stakeholder of the company acknowledging support of the attempt for financing asked by that company.

- A **Letter of Guarantee (LoG)** is a written promise to take responsibility for another company's financial obligation if that company cannot meet its obligation. The entity assuming this responsibility is the guarantor.

Red Herring Prospectus

- Before an initial public offer (IPO) could open, a company goes through the filing of numerous documents before market regulator Sebi.

- One such document is the **red herring prospectus** which is an offer document or preliminary prospectus that a company files at Sebi to raise money by issuing equity shares to the public on stock exchanges.

- RHP contains comprehensive information about a company planning to raise money through public markets. A careful evaluation of RHP can help investors in deciding the attractiveness of an IPO.

- Some of the sections in an RHP are --- *information about the offer; risk factors; company-specific information; financial information; legal information; and other material information.*

- For instance, the section on company-specific information comprises an industry overview. It talks about the company's strengths and weaknesses and offers glimpses of the policy regulation framework.
- Moreover, a sub-section on promoters contains in-depth information on their background, experience, skills, and directorships at other companies, if any.
- The section on financials gives information on the company's key numbers and ratios and also touches upon important factors such as its debt and capital allocation strategies.

Transition from LIBOR

- As the end date approaches for the London Interbank Offered Rate (LIBOR), the Reserve Bank of India (RBI) has asked the banking industry to figure out the transition path for dollar loans in cases of disputes, delays and defaults.
- The LIBOR is a benchmark interest rate at which major global banks lend to one another in the international _interbank market for short-term loans._
- It serves as a globally accepted key benchmark interest rate that indicates borrowing costs between banks.
- The rate is calculated using the **Waterfall Methodology**, a standardized, transaction-based, data-driven, layered method.
- According to the Federal Reserve (US), LIBOR will be phased out by June 30, 2023, and will be replaced by the **Secured Overnight Financing Rate (SOFR).**
- This is being done because the LIBOR rate, and its methodology for calculation, has come under criticism for fixing and fraud.

Secured Overnight Financing Rate (SOFR)

- SOFR is a benchmark interest rate for **dollar-denominated** _derivatives and loans_ that is replacing the LIBOR.
- SOFR is based on transactions in the Treasury repurchase market and is seen as preferable to LIBOR since it is based on data from observable transactions rather than on estimated borrowing rates.
- While SOFR is becoming the benchmark rate for dollar-denominated derivatives and loans, other countries have sought their own alternative rates, such as SONIA.

Sterling Overnight Index Average (SONIA)

SONIA is the effective overnight interest rate paid by banks for **unsecured transactions** in the British sterling market. It is used for overnight funding for trades that occur in off-hours and represents the depth of overnight business in the marketplace.

Geographical Indication Tag

The Geographical Indication Registry recently granted the geographical indication (GI) tag to several products.

Nagri Dubraj rice

- Nagri Dubraj is known as the Basmati of Chhattisgarh because of its fragrance. The rice is of an indigenous variety and has small grains.
- After Jeeraphool rice, Dubraj is the second brand to get the GI tag from Chhatisgarh.
- The origin of the Dubraj is believed to be from the Shringi Rishi ashram area of Sihawa. The grain finds reference in Valmiki Ramayana.

Ladakh's wood carvings

- Wood carving, which is known as Shingkos in Ladakh, is a traditional form of art in the handicraft field and is part of the five major fields of knowledge in the traditional education system of Ladakh.

- The traditional knowledge system in Ladakh is classified into **ten fields of knowledge**, which are further divided into major and minor fields of study.
- Ladakh's wood carving is renowned for its **intricate designs and unique patterns that are mostly inspired by Buddhist themes and motifs**.
- Local wood such as **willow and apricot are used to make these wood carvings.**

Manamadurai Pottery (Tamil Nadu)

- Manamadurai in Sivagangai district is known for pottery making. The Vaigai river enriches the clay used for the Manamadurai pottery.
- The right proportion of mud, clay and heating makes this product very strong. The main raw materials for making these pots are soil and water.
- A unique type of clay is sourced from water bodies like Nedunkulam, Nathapurakki, Sundaranadappu, Seikalathur to make these pots.
- While making these pots, the five elements of nature namely earth, water, fire, sun and air are used. The basic material for pottery is mud, which represents the earth. Mud is mixed with water.
- This is followed by baking in fire, adding the third element. The air percolates through the pores in clay, marking the fourth element. And finally, the cavity enclosed by pot or any related article represents space.

Cumbum Grapes

- Cumbum grapes, also known as Cumbum Panneer Thratchai has also earned the GI tag.
- The Cumbum valley located at the **Western Ghats in Tamil Nadu** is known as the '**Grapes city of South India**' and cultivates the Panneer Thratchai.
- This variety which is also known as Muscat Hamburg constitutes almost 85% of the grape-growing areas in Tamil Nadu.
- Theni district is one of the highest grapes producing areas of Panneer Thratchai. However, the 'Panneer' variety is chiefly associated with Cumbum Valley, where the cultivation area covers around 2,000 acres at 10 villages.
- The agro climate and the soil condition of the Cumbum region is very conducive for the cultivation of the Muscat variety.
- This variety is popular for its quick growth and early maturity. This ensures that the crop is available in the market almost throughout the year.
- The rich soil and water of the land are said to enhance the flavor of the natural fruit. The grapes grown are suitable for making wine, spirit, jams, canned grape juice and raisins.
- These grapes are rich in vitamins, tartaric acid and antioxidants and reduces the risk of some chronic diseases. They are also known for a superior taste apart from the purplish-brown colour.

GI Tags from Varanasi

- The Benarasi Paan famous for its delicious taste and make, which involves several ingredients received a GI tag.
- Along with it, Banarasi Langda Mango, Ramnagar Bhanta (Brinjal), and Adamchini Rice also received GI tags for the riverine city (Varanasi) in the Bhojpur-Purvanchal region.
- Before this, the Kashi and the Purvanchal region had 18 GI products -- including Banaras Brocade and Sarees, Handmade Bhadohi Carpets, Mirzapur Handmade Carpets, Banaras Metal Reposi Craft, Varanasi Gulabi Meenakari, Varanasi Wooden lacquerware and Toys, Nizamabad Black Patri, Banaras Glass Beads, Varanasi Softstone Jaali Work, Ghazipur Wall Hangig, Chunar Sandstone, Chunar Glaze Patari, Gorakhpur Terracotta Craft, Banaras Zardozi, Banaras Hand Block Print, Banaras Wood Carving, Mirzapur Brass Utensils, and Mau Saree.

POLITY AND GOVERNANCE

Yuva Sangam II

Registrations for Yuva Sangam II started recently under which exposure tours will be conducted. It envisages participation of 1000 youngsters from 23 States and UTs of India.

About Yuva Sangam

Initiative By	• Government of India under its **Ek Bharat Shreshtha Bharat programme** to strengthen people to people connect especially among youth across the Nation.
Target Group	• The youths (18-30years) comprise mainly of students studying in Higher Educational institutions & some off-campus youngsters from across the Nation.
Focus Area	• It will provide multidimensional experience under five broad areas of- • **Paryatan (Tourism) 2) Parampara (Traditions) 3) Pragati (Development) 4) Prodyogik (Technology) and 5) Paraspar Sampark (People-to-people connect).** • Students can interact with each other through this program in the areas of language, literature, cuisine, festivals, cultural events and tourism.

- Its first round was conducted in February-March 2023 with the focus on the Northeastern Region.
- Under the second phase, exposure tours of 40-50 students will travel to the paired states in the months of April and May 2023.
- Interested youth in the age group of 18-30 years may register on the portal exclusively developed for the purpose at https://ebsb.aicte-india.org/ to participate in the program.

Performer's Tax

Actress Anushka Sharma had recently challenged the sales tax levied against her income from advertisements and performances in award shows in the Bombay High Court.

Background
- The State of Maharashtra had levied Rs 1.2 crore sales tax (inclusive of interest) for 2012-13 on Rs 12.3 crore and Rs 1.6 crore tax was levied on her for the Rs 17 crore for 2013-14 under the Maharashtra Value Added Tax (MVAT) Act on the revenue she received.

Why was the sales tax levied against Sharma?
- Sharma's remuneration is from tripartite agreements with Yash Raj Films (YRF) which was her agent and a third party for ad films, stage shows etc.
- As per the tax department, Sharma, who has the "first owner of copyright" on all her artistic work is selling that right through these agreements and hence is liable to *pay sales tax and not just treat it as personal income.*

About Performer Tax

- The Performer's Tax is levied on income earned by artists or performers for their performances in various forms of entertainment, such as music, dance, theater, or other cultural events.
- The Performer's Tax is a type of professional tax, which is a state-level tax in India.
- This tax is typically **deducted at the source** by the organizers or event managers and is then remitted to the respective state government.

Tax Department's View	Actress' View
The actress is the first owner of copyright on all her artistic work. She is selling this right through her agreements with Yash Raj Films (YRF) for ad films, stage shows etc.	She does not possess any copyright in the film thus, there is no question of transferring/selling the 'copyright' to any other person or to the producer.

She is liable to pay sales tax under Section 6(1) of the Maharashtra Value Added Tax Act, 2002. ✓ Section 6(1) of the Maharashtra Value Added Tax Act, 2002 provides there shall be levied a sales tax on the turnover of sales of goods.	As per Section 2(d) of the Copyright Act, the producers of the shows are the original creators and own its copyright. Any actor who performed in the film cannot be called the creator or producer and hence does not own a copyright of the film.
The actress was providing services and earning income through a "contract for services" and not through "contract of services".	She is just a 'performer' and has performer's rights under section 38 and 38A of the Copyright Act. This right vested in her are not copyrights.

- **Contract for Service**- When one wants to engage the services of a third-party as an independent contractor for a specific purpose.

- **Contract of Services**- when one is employed by someone. For example, an employment contract.

Performer & Performer's Rights

About Performer's Rights

- Section 38 of the Copyright Act of 1957, which was revised in 2012, recognizes "Performer's Rights" to safeguard the interests of artists and ensure they receive appropriate compensation for their creative works.

- These rights apply to any kind of performance, including songs, movies, and literary works, that have been **preserved for at least 50 years**.

- The law also *prohibits the buying or selling of performer's rights through contracts* to prevent production companies from acquiring an artist's work without their consent. As a result, artists can retain ownership of their creations and receive fair remuneration for their efforts.

Legal Protection Of Performer's Right

Legal protection of performers' rights has evolved over time through international treaties and national laws.

International Treaties (Evolved over Time)	National Laws
• The **Rome Convention of 1961** recognized it for the first time. It protected performers works for the duration of 20 years. • These rights were further recognised by the agreement on **Trade-Related Aspects of Intellectual Property Rights (TRIPS)** and **WIPO Performance and Phonogram Treaty (WPPT)**, where the economic and moral rights of performers were recognized. • It stated that the performers must be provided with monetary compensation for their performance and if their work was used for any other purpose, they were entitled to receive royalties.	• In India, performer rights were recognized under the **Copyright Act of 1957 in 1994.** There was no mention of performer rights before that. • The Copyright Act is in conformity with the *WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT), both concluded in 1996.* • The protection of performers' rights in India lasts for 50 years from the end of the year in which the performance was fixed or took place.

Infringement Of Performer's Rights

Acts Constituting To Infringement	Acts Not Constituting To Infringement
Reproduction of work without performer's consent.	• Reproducing any sound or visual recording either for the purpose of private use or for teaching and research work only.

| | • Reproducing performer's work for the purpose of judicial proceeding or for use by member of legislature. |
| | • Reproduction for the purpose of reporting, reviewing or other things that come under fair dealing. |

Remedies Available Against Infringement

Civil Remedies (Section 55)	Criminal Remedies (Section 63)
• The owner of the performer's right or his exclusive licensee may go to court and obtain the injunction either temporary or permanent or they may also claim damages.	The infringer may be sentenced for six months which may extend up to three years or may be liable to pay a fine of Rs. 50,000 to Rs. 2,00,000 or both.

Related Judgements-

- *Super Cassettes Industries v. Bathla Cassette Industries, 1993:* **T**he Delhi High Court stated that copyright and performers rights are two different things and if the song is re-recorded then prior permission of the original singer is required.

- *Neha Bhasin vs Anant Raj Anant, 2006:* The Court stated that although she did not have performers rights in the song, as it is available only for live events, she had moral rights in the song and had a right to have her name displayed as the **lead singer**.
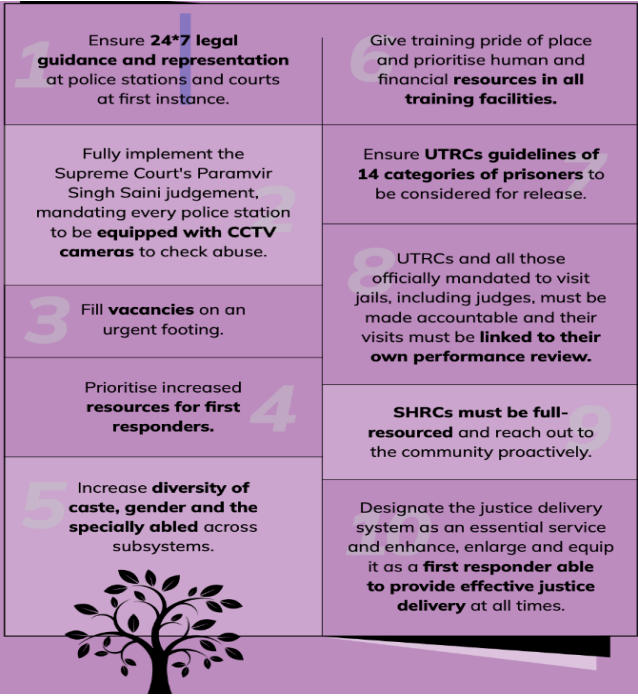
India Justice Report 2022

As per the latest India Justice Report, 2022 pending cases are increasing in Indian courts day by day and they are functioning with fewer judges than the sanctioned number.

- Karnataka has achieved the top rank among the 18 large and mid-sized states in delivery of justice with populations over one crore.

- Tamil Nadu has ranked in the second position; Telangana third; and Uttar Pradesh is at rank 18 which is the lowest.

About India Justice Report

Published by	• Tata Trust in partnership with a group of sectoral experts- Centre for Social Justice, Common Cause, Commonwealth Human Rights Initiative, DAKSH, Tata Institute of Social Sciences - Prayas and Vidhi Centre for Legal Policy. ➢ The first report was published in November 2019.
Main Constituents	• It assesses the capacity of 4 core pillars of the justice system namely **1) Police, 2) Prisons, 3) Judiciary** and **4) Legal aid** through the filters of human resources, infrastructure, budgets, workload and diversity.
Salient Features	• This report is the first of its kind ***national periodic reporting*** *that ranks the capacity of states to deliver justice.* • It focusses on the *comparisons and tracks the rise and fall* in each state's structural and financial capacity to deliver justice. • This 3ʳᵈ IJR also separately assesses the capacity of the 25 state human rights commissions.
Benefits of IJR	• The availability of comprehensive data in one place enables policymakers to develop holistic policy frameworks. • Participatory dialogues between governments and citizens, based on objective facts rather than opinions, enhance the chances of building consensus and facilitating reforms.

Police			
Job Quota in Police ✓ **Karnataka** is the only state to fulfill its quotas for SC, ST and OBC. ✓ Chhattisgarh and Telangana fulfilled their quotas at district levels. ✓ No state/UT could fulfill all three quotas.	**Representation of Women-** It has improved in 23 States and UTs since IJR 2020. But, it would take 24 years for the country to have at least 33% women in police.	**Rural-Urban Divide-** ✓ In 19 states/UTs urban police stations serve greater populations than their rural counterparts. ✓ Kerala's urban police stations serve ten times the population of a rural one and Gujarat's four times.	**CCTVs-** ✓ Only Arunachal Pradesh has CCTV cameras in all its 24 police stations. ✓ Only 8 states/UTs (Andaman & Nicobar Islands, Arunachal Pradesh, Kerala, Ladakh, Tripura, Karnataka, Delhi, Goa) reported night vision-equipped CCTVs.

Judiciary			
1) Judge Vacancy- No court works with a full complement of judges except the High Court of **Sikkim** and the district courts in Chandigarh. 2) As of December 2022, the High Courts were functioning with only 778 judges against a sanctioned strength of 1,108 judges.	**Quota-** At the district court level no state/UT could fully meet all its SC/ ST/ OBC quotas. Data on SC/ST/ OBC judges is not available for High Courts. 2) Only 13% of High Court judges and 35% of Subordinate Court judges are women	**Case Clearance Rate-** Among the 18 large and mid-sized states, only Kerala and Punjab could achieve case clearance rates of 100 per cent and more at both High Court and subordinate court levels. Caseload per judge has increased in 22 States and UTs between 2018 and 2022.	**Rising Pendency-** Uttar Pradesh has the highest average pendency with the cases pending for an average of 11.34 years, and in West Bengal for 9.9 years. The lowest average pendency is in Tripura of 1 year, Sikkim of 1.9 years and Meghalaya of 2.1 years.

Legal Aid	
Legal services clinics- It has dropped to 4,742 (2022) from 14,159 (2020)	**Settlement Value-** Rs. 7,322 crore was the total value of settlement by National Lok Adalats between 2021-2022.

Prisons		
1) Undertrials- 32 states have more than 60% of undertrials.	**Education-** 24 states/UTs provided education to less than 5% of inmates during 2021.	**1) Vocational Training-** 5 states didn't provide any vocational training to inmates in 2021. 2) Prisons are over-occupied at over 130%, with more than two-thirds or 77.1% of the prisoners still awaiting the completion of investigation or trial.

State Human Rights Commission	
33,312 of total number of cases are pending across all 25 State Human Rights Commissions.	44% national vacancy across 25 SHRC. On average, nearly 1 in 2 positions are vacant. The highest vacancy is in Punjab with 94%.

Recommendations	Benefits of IJR
	1. **Better Policymaking** 2. **Better Reforms**- The itemization of the data into budgets, human resources, infrastructure, workload and diversity helps to pinpoint the ground issues which, if tackled early on can set up a chain of reforms. 3. **Participatory Dialogue** between governments and active citizens of disparate ideologies to be underpinned by objective facts rather than premised in opinion. This enhances the chances for reforms through consensus building.

Government Policies & Anti-Establishment

The Supreme Court while quashing Centre's telecast ban on Malayalam news channel MediaOne (*operated by MBL)* held that criticism of governmental policies cannot be termed "anti-establishment".

Background

- The channel MediaOne TV was banned for 48 hours in 2020 after the I&B ministry objected to its coverage of Delhi violence. According to I&B Ministry the channel had violated the provisions of the **Cable Television Network Rules 1994.**

- This channel was taken off air last year as its license was not renewed. The government cited 'security' concerns for not renewing the channels license.

- The channel then approached the Kerala High Court which deferred the operation of the ministry's ban order. In February 2022, a single judge upheld the Centre's decision to bar telecast of channel based on the evidence submitted by the government in **sealed-cover** and claimed that decision of Ministry of Home Affairs (MHA) to deny security clearance was based on intelligence inputs received from various agencies.

- The channel had contended that *MHA clearance was only required at the time for fresh permission/license and not at the time of renewal*.

- The Supreme Court cancelled the ban, criticized the practice of submitting information to the court in sealed cover and directed the Centre to renew the channels license in four weeks' time.

Supreme Court's Observations In This Judgement

1. **Intelligence Reports:** The SC said that a blanket immunity from disclosure of all investigative reports cannot be granted and not disclosing the relevant material except to the court violates the appellant's right to a fair hearing protected under Article 21 of the Constitution.

2. **Security as an Excuse:** The court held that the state cannot use *national security* as a tool to deny citizens remedies guaranteed under the law. National security claims cannot be made of thin air and there must be solid

evidence backing such an inference. It said that non-disclosure of reasons for denial of security reasons and disclosure only to court in sealed cover has _violated principles of natural justice._

3. **False Allegations:** The court stated that the IB's "inferences" on MBL's alleged links with Jamaat-e-Islami (JEI-H) (an organization which was last cleared of terror links in 1994) were drawn from information already available in the public domain and there was nothing secretive about this. It found these allegations fallacious. It claimed denial of security clearance by the Broadcasting Ministry to Media One channel baseless because of its _airing critical views about the Unlawful Activities Prevention Act, Armed Forces Special Powers Act, Citizenship Amendment Act, National Register of Citizens, the state's soft attitude to Hindus involved in the destruction of Babri Masjid and the portrayal of security forces and judiciary in bad light._

4. **Press Freedom:** Batting for press freedom, the bench held that an independent press is necessary for a robust democracy, it shines a light on the functioning of the state and presents the citizens with hard facts enabling them to make choices that propel democracy in the right direction.

5. **Less Restrictive Alternative:** It suggested a "less restrictive" **public interest immunity (PII)** claims proceedings as an "alternative" to the sealed cover proceedings while dealing with state requests for confidentiality.

   ✓ **PII**- Such proceedings allow the court to _test the relevance of the material the state desires to keep confidential in 'public interest'._ Such proceedings are "closed sittings" but a reasoned order, _allowing or dismissing the PII claim of the state, should be pronounced in open court_. If the PII claim is successful, the court could opt to redact (edit) confidential portions of the document (this can be retained by the court) or provide both parties with a summary of the contents of the documents.

6. **Amicus Curiae:** The court suggested appointing an amicus curia to balance the concerns of confidentiality with the need to preserve public confidence in the objectivity of the justice delivery system. The amicus would gain access to information sought to be kept secret by the state and would represent the interests of the citizens fighting for the disclosure of the material.

Article 371F

Former Sikkim Chief Minister alleged that the Finance Bill 2023 has violated article 371F which guarantees special provisions to Sikkim. The Financial Bill, 2023 redefines Sikkimese as any Indian citizen domiciled in Sikkim, extending to them the same benefits as that of the original inhabitants whose forefathers' names were in the 1961 register.

Article 371F
• In 1950, the kingdom of Sikkim entered into a protectorate agreement with the Government of India, which granted it autonomy in its internal affairs, while the responsibility for its defense, communications, and external relations remained with the Government of India.   • Sikkim was an independent kingdom until 1975, when it became the 22nd state of India.   • Article 371F (36th Amendment Act 1975) was included in the Constitution to ensure that Sikkim's distinct identity and cultural heritage were protected and preserved after its merger with India.
Article 371 F lists special provisions for Sikkim that are not available to other Indian states. Some of the key provisions are:
Protection of Sikkimese: Only the descendants of Sikkim subjects (those who lived in the state before its merger with India) whose names were mentioned in the **1961 register** are considered Sikkimese and are entitled to certain benefits, such as the right to own land and get state government jobs.   • They are also exempted from paying income tax.
Jurisdiction: Neither the Supreme Court nor any other court shall have jurisdiction in respect of any dispute or other matter arising out of any treaty, agreement, engagement or other similar instrument relating to Sikkim.

Powers of President: The President may, by public notification, extend any enactment which is in force in a State in India. with such restrictions or modifications as he thinks fit to the State of Sikkim.

Constitutional Safeguards: The Governor of Sikkim shall have special responsibility for peace and an equitable arrangement for ensuring the social and economic advancement of different sections of the population of Sikkim.

Representation in Parliament: The representative of the State of Sikkim in the House of the People shall be elected by the members of the Legislative Assembly of Sikkim.

About Article 371

It includes "**special provisions" for 11 states**, including six states of the Northeast. These special provisions aim to preserve their tribal culture.

Article: 371 (Maharashtra and Gujarat)

Provisions: Governor has "special responsibility" to-

- Establish "separate development boards" & ensure equitable allocation of funds for Vidarbha, Marathwada, and the rest of Maharashtra and Saurashtra and Kutch in Gujarat.

Article: 371A (13th Amendment Act, 1962), Nagaland

Provisions: Parliament cannot legislate in:

- Matters of Naga religion or social practices & Naga customary law and procedure,
- ownership and transfer of land without concurrence of the state Assembly.

Article: 371B (22nd Amendment Act, 1969), Assam

Provisions: The President may provide for the constitution and functions of a committee of the Assembly consisting of members elected from the state's tribal areas.

Article: 371C (27th Amendment Act, 1971), Manipur

Provisions: The President may provide for the constitution of a committee of elected members from the Hill areas in Assembly and give "special responsibility" to the Governor for proper functioning.

Article: 371D & 371E (32nd Amendment Act, 1973; substituted by The Andhra Pradesh Reorganization Act, 2014), Andhra Pradesh and Telangana

Provisions: President must-

- Article 371D: Ensure equitable opportunities and facilities in public employment and education to people from different parts of the state.
  - Require the state government to organize any class in a civil service under the State into different local cadres for different parts of the State.
- Article 371E: Allows for the establishment of a university in Andhra Pradesh by a law of Parliament. But this is not a "special provision" in the sense of the others in this part.

Article: 371F (36th Amendment Act, 1975), Sikkim

Article: 371G (53rd Amendment Act, 1986), Mizoram

Provisions: Parliament cannot make laws on:

- Religious or social practices of the Mizos & Mizo customary law and procedure.
- ownership and transfer of land.

Article: 371H (55th Amendment Act, 1986), Arunachal Pradesh

Provisions: The Governor has a special responsibility regarding law and order, and after consulting the Council of Ministers, exercises his individual judgment as to the action to be taken.

Article: 371I, Goa

Provisions: Deals with Goa but does not include any provision that can be deemed 'special'.
Article: 371J (98th Amendment Act, 2012), Karnataka
Provisions: Contains provision for a separate development board for the Hyderabad-Karnataka region.

Extra Mile: About Finance Bill

- It concerns the country's finances and contains provisions related to taxation & expenditure.
- It is a part of the Union Budget and is presented in Lok Sabha along with the Budget.
- Types - Finance Bill Category I (Article 117 (1)), Finance Bill Category II (Article 117 (3)), and the Money Bill (Article 110).

Cinematograph (Amendment) Bill, 2023

The Union Cabinet recently approved the Cinematograph (Amendment) Bill, 2023 aimed at curbing **transmission of pirated film content** on the internet and introducing new age categories for classifying films. It seeks to amend the Cinematograph Act, 1952.

Background

- The Cinematograph (Amendment) Bill 2019 was introduced in the Rajya Sabha in 2019. It was then referred to the Standing Committee on Information Technology which submitted its report in March 2020.
- The Cinematograph (Amendment) Bill, 2023, was prepared after public and inter-ministerial consultations. It will be introduced in Parliament during the upcoming monsoon session.

Key Features To Be Introduced

Offence & Penalty	Age Classification	Uniformity	Re-Examination
1) The act of piracy will be considered an offence legally and will include even transmitting pirated content punishable. 2) Those engaged in film piracy will attract up to three years of imprisonment and ₹10 lakh penalty.	1) It will expand the U/A category (which can be viewed by minors with adult supervision) to **U/A 7+, U/A 13+ and U/A 16+.** 2) This will allow filmmakers to address mature themes without attracting an A certificate.	It seeks to bring about uniformity in categorization of films and content across platforms.	The government will be allowed to order the Central Board of Film Certification (CBFC) for re-examining the films already been cleared for exhibition.

About Cinematograph Act, 1952

1) Objective: To ensure that films are exhibited in accordance with the limits of tolerance of Indian society i.e., within the walls of Article 19(1)(a) and 19(2) of the Indian Constitution.

2) Establishment of Central Board of Film Certification (CBFC) or Censor Board:

- Act established CBFC to grant certification and regulate public exhibition of films.
- CBFC consists of a chairman and twelve to twenty-five members appointed by the Central Government to sanction and certify films.
- Certification should adapt to social change, while promoting clean and healthy entertainment. Films should meet standards of decent quality and aesthetic value and be judged by the CBFC without biased perspectives.

3) Appeal Mechanism: Film Certificate Appellate Tribunal ('FCAT')

- A quasi-judicial body, to which an appeal can be made by an aggrieved person against CBFC's order within thirty days from the receipt of the order.

- Once the appeal has been made, the film must go through the Examining Committee, the Revising Committee and FCAT.
- If it is rejected by all these three bodies, it is considered banned and moving to the Court remains the last resort.

> *Note:* Recently, the Central Government of India introduced the **Tribunal Reforms (Rationalization and Condition of Service) Act 2021,** which has dissolved certain appellate bodies and including the FCAT too. Chapter IV Section 9 of the Tribunal Reforms Bill, 2021, which has rendered the dissolution of the FCAT by shifting the appellate jurisdiction under the Cinematograph Act, 1952 with the High Court, owing to the jurisdiction of the High Court.

4) Action Against Contravention of Act

- The act lays down penalties for uncertified or unauthorized exhibition of film.
- The act also authorizes the police to conduct searches and seizures under CrPC.

5) Certification Categories

Universal (U)	Can be watched by everyone including children.
Parental Guidance (U/A)	(Unrestricted public exhibition subject to parental guidance for children under the age of 12).
Adults Only (A)	can be watched by adults only as the mental health of the children can be negatively influenced by the content.
Special Class of Persons (S)	suitable only for a specific class of persons or profession.

Related Judgements

Bandit Queen (1994)-

- Based on the life of Phoolan Devi, the film was granted 'A' certificate by CBFC on the condition that all scenes depicting nudity, rape, any form of violence or indecency would be deleted or modified.
- The makers appealed to an appellate tribunal which allowed the film's screening without any modifications.
- This was challenged in the Delhi High Court, which ordered the Board to grant '**A'** certificate to the film only after the required modifications and deletions.
- An appeal was made against this order in the SC which held that the scenes depicting frontal nudity, indecency or even immorality were an important artistic expression for narrating the truth and the producer's rights guaranteed under Article 19(1)(a) cannot be restricted only because it poses threat to the moral system of the society.

Unfreedom (2015)-

- The film after going through Examining Committee, Revising Committee and FCAT was banned without any possibility of any **'cuts'** on the grounds of nudity and homosexuality.
- The Board was also irked by the Islamic terrorism angle which might create religious tensions between the Hindu and Muslim community.
- But the film was released on Netflix and was an instant hit.

Mudgal Committee Suggestions

- Changing the name of the 'advisory panel' to 'screening panel' consisting of 9 members with at least 2 women members to ensure language diversity via representation.
- Widening the scope of jurisdiction of the FCAT so that it can hear cases regarding film objections instead of courts to save time and resources.

Criticism

- Unreasonable orders for deleting major or effective parts of the film dampens film's creativity.

- Violates the fundamental right to freedom of expression under *Article 19(1)(a).*

- Meaningless cuts ordered in a film may lead to not only wastage of effort but also financial resources.

Assam-Arunachal Border Dispute

Recently, a Memorandum of Understanding (MoU) was signed between the Chief Ministers of Assam and Arunachal Pradesh over their long-standing border dispute between the two states.

- Both the states share a roughly 800-kilometre-long border. The disputed areas the MoU deals with are 123 border villages, which span 12 districts of Arunachal Pradesh and 8 districts of Assam.

Background

- The dispute dates to colonial times in 1873, when the British announced the "inner line" regulation, demarcating an imaginary boundary between plains and the frontier hills (designated as the Northeast Frontier Tracts in 1915).

- The Northeast Frontier Tracts included the areas of present-day Arunachal Pradesh.

- Post independence, the Assam government assumed administrative jurisdiction over the Northeast Frontier Tracts, which came to be known as Northeast Frontier Agency (NEFA) in 1954.

- Before NEFA, a sub-committee headed by former Chief Minister of Assam Gopinath Bordoloi, made a set of recommendations in relation to the administration of NEFA and submitted a report in **1951.**

- Based on these recommendations, around 3,648 kilometers of the "plain" area of Balipara and Sadiya foothills were transferred from NEFA to Assam's then Darrang and Lakhimpur districts.

- Arunachal Pradesh (in 1972) contended that several forested tracts in the plains that had traditionally belonged to hill tribal chiefs and communities were unilaterally transferred to Assam.

Demarcation Efforts

- A high-powered tripartite committee was constituted in 1979 to resolve this boundary issue based on Survey of India maps as well as discussions with both sides.

- Around 489 km of the 800 km were demarcated by 1983-84 but no further demarcation could occur as Arunachal rejected the committee recommendations and claimed several kilometers of the 3,648 sq km, which was originally transferred to Assam as per the 1951 report.

- Assam objected to this claim and filed a case against Arunachal Pradesh in the Supreme Court in **1989,** highlighting an "encroachment".

- To resolve this boundary issue, the Supreme Court appointed a local boundary commission headed by a retired SC judge.

- The commission submitted its report in 2014 which recommended giving back Arunachal Pradesh some territories transferred to Assam in 1951. It suggested both states arrive at a common consensus. But nothing worked out.

About the MoU

CM level talks started to resolve this issue in 2022. This resulted in some key decisions-

- The border issues between both the states would be c**onfined to a list of 123 villages** which Arunachal Pradesh had claimed before the Local Commission in 2007.

- A boundary line delineated by the high-powered tripartite committee in 1980 would be taken as the notified boundary and all realignment would be done based on it.

- For this purpose, both states will set up 12 regional committees covering the 12 districts of Arunachal Pradesh and the 8 counterpart districts of Assam for joint verification of the 123 villages. These committees will make recommendations considering the historical perspective, administrative convenience, contiguity and people's will.

Progress Made in This Direction

- The Namsai Declaration signed between both the CM's resolved the dispute over 37 of these 123 villages, effectively reducing the number of disputes to be resolved to 86.

- The dispute over another 34 villages has been resolved amicably through the MoU.

Key Decisions Taken

- Regional Committees will finalize the village boundaries of 49 villages which are unresolved within a period of six months "through continuous dialogue".

- The matter regarding another three villages located partially within the Indian Air Force's bombing area in Dullong will be taken up by Arunachal Pradesh with the Government of India and the Indian Air Force.

- No new claim area or village will be added in the future beyond these 123 villages.

- The state governments agreed to effectively prevent any new encroachment in the border areas and considered the MoU "full and final" in respect to the 123 villages.

Similar Border Disputes

Assam & Other States

- **Assam-Mizoram:** Mizoram was initially a part of Assam before becoming a Union Territory and then a State in 1987 post the Mizoram Peace Accord. It shares a border with the districts Cachar, Hailakandi and Karimganj districts of Assam. The Mizos want the demarcation according to the 'Inner Line' regulation announced by the British, but Assam wants the demarcation according to the boundaries drawn up later.

- **Assam-Meghalaya:** Over a dozen areas are disputed along the Assam-Meghalaya border. The North-Eastern Reorganisation Act 1971 demarcated the states. But Meghalaya cited 1835 colonial era notification for demarcating the boundaries which was opposed by Assam. The Chief Ministers of both the states have now started a round of meetings to resolve this issue.

- **Assam-Nagaland:** The longest running border dispute since 1963 when Nagaland was given the status of a state. Nagaland claims the districts of Golaghat, Jorhat, Sibsagar in the Disputed Area Belt (DAB) of Assam. Assam filed a case against this claim in Supreme Court in 1989.

Maharashtra-Karnataka

- The dispute is over the districts of Belagavi, Karwar and Nipani in North Karnataka. After the States Reorganization Act, 1956 Belagavi became a part of erstwhile Mysore state. But because Marathi is the dominant language of Belagavi, Maharashtra wants it in its own territory. The Mahajan Committee was set up in 1966 to resolve this issue. It gave the decision in Karnataka's favour to which Maharashtra objected and moved to the Supreme Court in 2004.

Himachal Pradesh & Other States

- **Haryana-Himachal Pradesh:** Both the states are fighting over the district of Parwanoo adjoining Panchkula. Haryana has accused Himachal of encroaching this area and asked the Survey of India to demarcate the boundary. Ministry of Home Affairs (MHA) is examining the issue.

Himachal Pradesh-Ladakh: The region of Sarchu on the Manali-Leh highway is the cause of dispute. Himachal has accused Leh of encroachment. In 2016, the Survey of India validated Himachal's claim but J&K officials dismissed the validity of the maps presented by the Surveyor General of India. The dispute is under consideration by MHA now.

Southern States

- **Odisha-Andhra:** Both the states have been locking their horns over the district of Kotia for over 50 years now.
- **Kerala-Tamil Nadu:** Kerala shares its border with Tamil Nadu in nine districts. The Kerala government launched a digital re-survey of its land in 2022. Tamil Nadu has alleged that Kerala is acquiring a vast expanse of land on the borders through this move and so the Tamil Nadu government asked its Departments of Revenue and Forest officials to monitor the developments in areas along the inter-state borders

Dispute Resolution Mechanisms
Judicial Redressal Article 131 empowers the Supreme Court to have original jurisdiction in any dispute- - between the Government of India and one or more States; - between the Government of India and any State or States on one side and one or more other States on the other; - between two or more States. This jurisdiction does not extend to a dispute arising out of any treaty, agreement, covenant, engagements, and or other similar instrument which, having been entered into or executed before the commencement of this Constitution, continues in operation after such commencement.
Inter-State Council Article 263 empowers the President to set up an Inter-state Council for- - Inquiring into and advising upon disputes between states; - Investigating and discussing subjects in which some or all of the states, or the union and one or more of the states, have a common interest; - Making recommendations upon any such subject and recommendations for the better coordination of policy and action with respect to that subject.

Conclusion

This MoU is a successful example of cooperative federalism and will provide a roadmap for resolving border disputes between other states.

Penal Interest Clause in Cental Sponsored Schemes (CSS)

The central government has recently made the rulebook for Centrally Sponsored Schemes (CSS) even more stringent, and for the first time, it has included a provision for "penal interest" for delays in fund transfers by states.

Key Points

- The Centre has asked the states to ensure that their share of funds is transferred to the Single Nodal Agency (SNA) for CSS ~~scheme~~ within 30 days of receiving central funding instead of 40 days, as allowed earlier.
- Any delay beyond 30 days would attract a 'penal interest' of 7% per annum.
- This 'penal interest' by a state that delays prescribed fund flow will be transferred to the Consolidated Fund of India.

About Centrally Sponsored Schemes

What?	These schemes are funded partially by the Central and State Governments.
Aim	To help the states run their plans financially.
Implemented by	States and Union Territories
Funding Ratio	It varies from state to state and can be in the ratio of 50:50 or 90:10 or 75:25

Types

- **Core of Core**- are the flagship schemes of the central government and include umbrella schemes for development of scheduled castes, minorities etc.: Mahatma Gandhi National Rural Employment Generation Scheme. They are implemented for social inclusion and social protection.

- **Core**- Central government takes up more share in these schemes and the states are expected to pitch in the remaining funds. The general funding pattern is 60:40 or 90:10 (for Northeastern & Hilly States). Eg.: Pradhan Mantri Gram Sadak Yojana (PMGSY), Pradhan Mantri Awas Yojana (PMAY), Integrated Watershed Development Programme etc.

- **Optional**- State governments plan the schemes and request the central government to fund some portion of the total outlay. The general funding pattern of the optional schemes is 50:50 (State: Center). the Central government may take up the task of funding more if the scheme is to be implemented in backward areas or difficult terrains. **Eg.:** Border Area Development Programme, and Shyama Prasad Mukherjee Rurban Mission.

Centrally Sponsored Schemes vs Central Sector Schemes

Centrally Sponsored Schemes	Central Sector Schemes
Implemented by state governments.	Implemented by the central government.
Budget or financing needed for the scheme is jointly funded by the Centre and states.	Budget or financing needed for the scheme is entirely sourced by the central government.
Centrally sponsored schemes address matters listed in the state list.	The Centre Sector Schemes are primarily designed to encompass topics that fall under the Union List or the Concurrent List

Inter-Operable Criminal Justice System

To ensure the timely disposal of criminal cases, the Ministry of Home Affairs (MHA) e-prosecution portal (part of the I**nter-Operable Criminal Justice System (ICJS)**) has added a new feature that will also fix the accountability of government lawyers.

About ICJS

What?	It was conceptualized by the **e-Committee of Supreme Court** to enable seamless transfer of data and information among different pillars of the criminal justice system, like courts, police, jails and forensic science laboratories, from one platform.
Implemented By	National Crime Records Bureau (NCRB) with National Informatics Centre (NIC).
Aim	To provide search and visual analytics over various data sets and capacity to achieve **"one data once entry"** across all the pillars.

Objectives

- Seamless Interoperability of data across all Pillars of criminal Justice System
- National Crime & Criminal Data Search across all Pillars

• MIS Dashboard and Reporting of FIR/Case/ Case pendency/ Prisons/ Prisoner status
• Data Analytics for Forecasting/ Predictive Trends in Crimes

Features

- The metadata of FIR and charge sheet can be accessed by all the High Courts and subordinate courts. All the relevant information of a case will be available in real-time for use by the courts.

- Compliance of judicial orders and summons can be achieved expeditiously, ensuring effective time management.

- It will enable National level crime analytics to be published at an increased frequency, which will help the policymakers as well as lawmakers in taking appropriate and timely action.

- It will enable Pan-India criminal/accused name search in the regional language for improved inter-state tracking of criminal movement.

Working

- This system would be made available through a dedicated and **secure cloud-based infrastructure** with high-speed connectivity.

- An IPS officer will be appointed by the High Court for data integration on the ICJS platform.

- High Courts will also appoint one Nodal Officer to ensure that apart from the police, other State functionaries like Provident Fund Organization, Forest Department, Municipal Authorities, Labour Welfare Boards, Town Planning Authorities and Food and Drug Administration are also part of ICJS.

Benefits

- It is an effective tool for case and court management, as all the relevant information will be available in real-time.

- It will enhance the productivity of the criminal justice system both qualitatively and quantitatively.

- The Investigating Officer (IO) will be able to carry out the national search across the pillars so that even if the entries are wrong in one pillar (in case of historical data) other pillars assist the IO to achieve the result.

- Redundant data entry across the pillars would be reduced and the possibility of data entry errors would be nullified.

- Online availability of reports reduces paper communication and waste of time.

- As Courts fixes the hearing dates after examining the availability of Forensic experts and Prosecutors online, the possibility of frequently postponing the hearing would be drastically reduced.

- Alerts at one pillar would help the other pillar to make appropriate preparations in advance.

INTERNATIONAL RELATIONS

EU Singles Out 19 Tech Giants For Online Content Rules

- The European Union (EU) has confirmed the names of 19 platforms that will be subject to its landmark online content rules.
  - Five subsidiaries of Google's parent Alphabet, two Meta units, two Microsoft businesses, Apple's AppStore, Twitter, and Alibaba's AliExpress are among the entities that the EU has identified.

- The rules notified under the **Digital Services Act (DSA)**, aim at overhauling the EU's social media and e-commerce rules.
  - DSA is an EU regulation which came into force in EU law in November 2022 and will be directly applicable across the EU.
  - It aims to address several issues related to digital services, including online safety, content moderation, and the responsibilities of online platforms.
  - The legislation includes new rules for large online platforms, such as social media networks and online marketplaces, to ensure greater accountability and transparency in their operations.

[For detailed discussion on the Digital Services Act (DSA), refer the topic *"EU's new laws to regulate content online"* from The Recitals – October 2022]

China Announces Renaming Of 11 Places In Arunachal Pradesh

- In an attempt to lay claim to areas inside the Indian territory, the Chinese government announced it would standardise the names of 11 places in Arunachal Pradesh.

- This is Beijing's third such list on Arunachal Pradesh, attempting to rename places by giving them what it calls standardised geographical names.
  - In 2017, the Chinese Ministry of Civilian Affairs put out a similar list of six places.
  - Again, in December 2021, released a list of 15 places that it sought to rename.

Why Is China Giving Names To Places That Are In India?

- China claims some 90,000 sq km of Arunachal Pradesh as its territory.

- It calls the area **Zangnan** in the Chinese language and makes repeated references to "South Tibet".
  - Chinese maps show Arunachal Pradesh as part of China, and sometimes parenthetically refer to it as "*so-called Arunachal Pradesh*".

- China makes periodic efforts to underline this unilateral claim to Indian territory.
  - Giving Chinese names to places in Arunachal Pradesh is part of that effort.

What Does China Seek To Gain From Making These Claims?

- It is a part of the Chinese strategy to assert its territorial claims over Indian territory.
  - As part of this strategy, China routinely issues statements of outrage whenever an Indian dignitary visits Arunachal Pradesh.
    - It did so when the then Vice President Venkaiah Naidu went there to address the state Assembly in October 2021.
    - The first batch of renaming in 2017 had come days after the Dalai Lama visited Arunachal Pradesh.

- Also, Chinese officials claim that the standardisation was necessary since all names used in southern Tibet were inherited through word-of-mouth for generations by minority ethnic groups.

- Hence, these names reflect that China's proposal on the sovereignty claim of the region has a <u>prominent historical, cultural, administrative and jurisdictional</u> basis.

- <u>Laying aggressive claims to territories on the basis of alleged historical injustices done to China is a part of Beijing's foreign policy playbook</u>.

    o The claim on Taiwan is one such example.

    o Also, consistent efforts are being made by China to change the facts on the ground in several disputed islands in the South China Sea.

SUMMITS AND ORGANISATIONS

UN Democracy Fund (UNDEF)

- India, a founding member of **UN Democracy Fund (UNDEF),** has no objections to the Fund giving grants to NGOs funded by **George Soros**. However, Soros is put on the watchlist in India.

  o India and the US were prime movers behind the UN Democracy Fund (UNDEF) in 2005, when they were negotiating the civilian nuclear co-operation deal.

India's Contribution to UNDEF

- India gave $5 million to the fund in 2005, 2006, 2008, 2009 and 2011.

- The contributions began dipping from 2012 ($4.71 m) and the following year it was $1.85 million.

- After no contribution in 2017, India was back with $100,000 in 2018 and 2019. In 2020, 2021 and 2022, it gave $150,000.

> **About UNDEF**
> - The UNDEF was created by UN Secretary–General **Kofi A. Annan i**n 2005 as a United Nations General Trust Fund to support **democratization** efforts around the world.
> - It was welcomed by the United Nations General Assembly in the Outcome Document of the **2005 World Summit**.
> - UNDEF funds **projects that empower civil society, promote human rights, and encourage the participation of all groups in democratic processes.**
> - The large majority of UNDEF funds go to local civil society organizations.
> - UNDEF depends entirely on **voluntary contributions** from Governments.
> - Grants ranging from US$100,000 to US$300,000, support initiatives in the areas of –
>   - Support for Electoral Processes;
>   - Women's Empowerment;
>   - Media and Freedom of Information;
>   - Rule of Law and Human Rights;
>   - Strengthening Civil Society Interaction with Government;
>   - Youth Engagement
>
> **UNDEF Composition:**
> - The **Advisory Board,** constituted by the Secretary General, includes eight largest Member State contributors and six other states to reflect diverse geographical representation.
> - **India has been a member of the Board since the beginning.**
> - The Advisory Board considers the proposals from NGOs and recommends proposals for approval by the Secretary General.

G7 Ministers' Meeting on Climate, Energy and Environment

- Climate and Energy Ministers and envoys from Group of Seven (G7) countries met for a two-day conference in Sapporo, Japan.

- Environment Minister of India had also participated in the summit with India being invited as a guest, in the context of its presidency of the G-20.

Key Highlights

- **Carbon-free Electricity Production By 2035**

  o Participating leaders committed to work towards ensuring carbon-free electricity production by 2035 and accelerating the phase-out of coal.

    ▪ This is significant as G7 nations account a quarter of global carbon emissions.

  o A proposal to have a 2030 deadline for phasing out coal was shot down.

  o The final text gives leeway for continued investment in gas, on the grounds that it could be a stopgap against energy shortfalls.

- **Agreed To Accelerate Solar And Wind Energy Investments**

  o The participants also agreed to accelerate solar and wind energy investments to produce 1,000 giga-watt (GW) by 2030 from solar power and 150 GW of wind power from off-shore platforms.

- **On Fossil Fuel Subsidies**
  - The leaders reaffirmed that fossil fuel subsidies are *inconsistent* with the goals of the Paris Agreement.
  - They expressed their commitment to the elimination of inefficient fossil fuel subsidies by 2025.
- **Net-zero Greenhouse Gas (GHG) Emissions by 2050**
  - Recognising the current global energy crisis and economic disruptions, participants reaffirmed their commitment of accelerating the clean energy transition to net-zero GHG emissions by 2050 at the latest.

G7

Origin
- The origin of G7 lies in the oil shocks of 1973 and the corresponding financial crisis.
- In order to address the situation after oil shock, the heads of the world's six leading industrial nations decided to hold a meeting in 1975.
- These six nations were – **US, UK, France, Germany (West), Japan and Italy.**
- These countries were joined by Canada in 1976 and G7 came into existence.
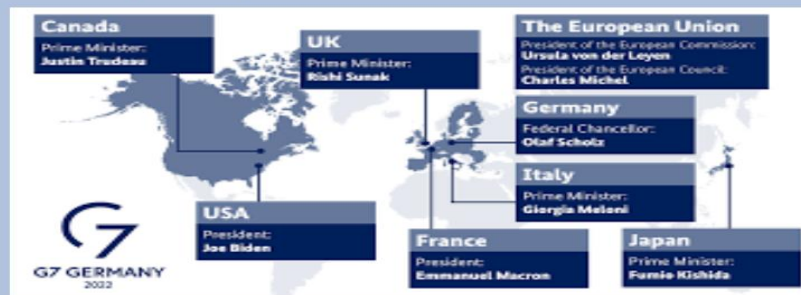
Current Members
- US, UK, Canada, France, Germany, Italy and Japan are the current members of this group.
- It can be said that the members of this group are the most developed and the advanced economies of the world.
- The European Union is also represented within the G7.

Purpose of G7
- To determine the course of multilateral discourse
- To shape political responses to global challenges. Basically, G7 provides a platform to discuss and coordinate solutions to major global issues, especially in the areas of trade, security, economics, and climate change.

Significance of G7

- **Economic Significance**
  - G7 nations account for:
    - close to 60 percent of global net wealth,
    - ~46 percent of global gross domestic product, and
    - ~10 percent of the world's population.

- **Political Significance**
  - Political heavyweights are capable of shaping the response of Multilateral challenges.
  - In 1999, it created the Financial Stability Forum in order to manage the international monetary system

- **G7 & COVID-19 Pandemic**
  - 47th G7 summit (held in June 2021) focused on the recovery from ongoing COVID-19 pandemic.
  - It promised to distribute 1 billion vaccines to poorer countries
  - Its theme was Global Action to Build Back Better.

- **Developmental Significance**
  - G-7 provided $300 million in 1997 to help build the containment of the reactor meltdown at Chernobyl.
  - G7 played crucial role in setting up a global fund to fight malaria and Aids in 2002.
  - In October 2020, G7 finance ministers backed an extension of a <u>G20 bilateral debt relief initiative for the world's poorest countries</u>.
    - It is also known *as Debt Service Suspension Initiative (DSSI).*
    - It means that bilateral official creditors are, during a limited period, suspending debt service payments from the poorest countries that request the suspension**.**

Power of G7

- The G7 is <u>not based on a treaty</u> and has <u>no permanent secretariat or office</u>. The agenda of G7 is set by the Presiding nation.
- It cannot pass any laws because it is made up of separate nations with their own democratic processes.
- However, decisions taken by G7 have global effects as the member countries are political and economic heavyweights.

WTO Panel Rules Against India

The dispute settlement panel of the WTO had ruled that India had violated global trading rules in a dispute with the European Union (EU), Japan and Taiwan over import duties on IT products.

Background:
- The EU, Chinese Taipei (Taiwan) and Japan dragged India to the WTO dispute in 2019 on imposing tariffs on certain information and communications technology goods.
  - These products include mobile phones, microphones, transmission apparatus for radio broadcasting etc.
- As per these petitions, India is a signatory to the *1996 Information Technology Agreement (ITA).*
- Hence, it is required to eliminate tariffs on a range of products, including mobile handsets.
- Many countries had complained that the imposition of tariffs on IT products by India was against the principles agreed upon under ITA.

What Was India's Stand On The Imposition Of Duties On IT Products?

- **India's Argument**
  - At the time of signing the ITA, products such as smartphones did not exist. Hence, it was not bound to eliminate tariffs on such items.
- **Decision To Increase Import Tariffs On Mobile Phones Has Paid Off Handsomely**
  - It resulted in significant investments, including those from Apple and Foxconn.
  - India's mobile phone exports will soon cross $10 billion a year.

What Options Does India Have After The Present WTO Ruling?

- India has option to appeal against the present ruling.
- If India does so, the case will sit in **legal purgatory** since the <u>WTO's top appeals bench is no longer functioning due to U.S. opposition to judge appointments</u>.
  - **Legal purgatory** is a term used to describe a situation where a legal case or dispute is in a **state of limbo**, without resolution or a clear path forward.

Organizational Structure of WTO

- **Highest Authority: Ministerial Conference**

  - <u>Topmost is the ministerial conference which has to meet at least once every two years</u>.

  - The Ministerial Conference can take decisions on all matters under any of the multilateral trade agreements.

- **Second Level: General Council In Three Guises**

  - Day-to-day work in between the ministerial conferences is handled by three bodies*: The General Council; The Dispute Settlement Body; The Trade Policy Review Body*.

  - The General Council acts on behalf of the Ministerial Conference on all WTO affairs.

  - It meets as the Dispute Settlement Body and the Trade Policy Review Body to oversee procedures for settling disputes between members and to analyze members' trade policies.

WORLD TRADE ORGANIZATION

About
- WTO is an international organization that promotes and regulates global trade among nations.
- It was established on January 1, 1995 by replacing the General Agreement on Tariffs and Trade (GATT).
  - GATT had been in existence since 1948.
- It has 164 member countries, representing over 98% of global trade.
- It is **headquartered in Geneva, Switzerland**, and operates on a consensus-based decision-making process.

Objective
- Its main objective is to promote free and fair trade by eliminating barriers to trade, such as tariffs and quotas, and by ensuring that trade disputes are resolved through a transparent and predictable process.

Functions
- Setting the rules of international trade,
- Negotiating and implementing trade agreements,
- Providing a forum for trade negotiations, and
- Monitoring national trade policies.

The WTO also works closely with other international organizations, such as the World Bank and IMF to promote global economic development and reduce poverty.

- **Third level: Councils For Each Broad Area Of Trade, And More**

  Three more councils, each handling a different broad area of trade, report to the General Council:

  - The Council for Trade in Goods (Goods Council);

  - The Council for Trade in Services (Services Council);

  - The Council for Trade-Related Aspects of Intellectual Property Rights (TRIPS Council).

Criticisms of Dispute Settlement Body of WTO

- **Lengthy and Costly process**

  - The process can be lengthy and expensive, particularly for developing countries. This can limit their ability to protect their interests and participate fully in the system.

- **Bias Towards Developed Countries**

  - This has led to concerns that the WTO is more concerned with

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Dispute Settlement Body of WTO
- The General Council convenes as the Dispute Settlement Body (DSB) to deal with disputes between WTO members.
- The DSB has the authority to:
  - establish dispute settlement panels,
  - refer matters to arbitration, adopt panel, Appellate Body and arbitration reports,
  - maintain surveillance over the implementation of recommendations and rulings contained in such reports, and
  - authorize suspension of concessions in the event of non-compliance with those recommendations and rulings.

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protecting the interests of the powerful trading nations than with promoting the development of the global trading system.

- **Limited Scope**
    - o The WTO's dispute settlement system only covers trade-related issues.
    - o This means that it is not equipped to address broader social and environmental concerns that may arise from international trade.
- **Lack of Transparency**
    - o The proceedings are not open to the public, which makes it difficult for non-governmental organizations and other interested parties to participate in the process.
- **Limited Enforcement Mechanisms**
    - o The WTO's dispute settlement system lacks strong enforcement mechanisms.
    - o This has led some to question the effectiveness of the system in resolving disputes and promoting compliance with WTO rules.

UN Statistical Commission

India has been elected to the UN Statistical Commission for a **four-year term** beginning on 1 January 2024. India won in the UN Statistical Commission election, securing 46 out of 53 votes, ahead of South Korea (23) China (19), and the UAE (15).

About The Commission

- **About**
    - o The United Nations Statistical Commission (UNSC) is a **subsidiary body of the United Nations Economic and Social Council (ECOSOC)**, established in 1947.
    - o It is the highest decision-making body for <u>international statistical activities</u>. It sets global standards for the production and dissemination of official statistics.
- **Functions**
    - o The Commission is responsible for promoting the development of national statistical systems, improving statistical methods and data.
    - o It is also responsible for coordinating international statistical activities among member states and international organizations.
- **Members**
    - o The UNSC comprises 24 member countries, elected for a four-year term by the ECOSOC, on the basis of equitable geographic distribution.

First Global Buddhist Summit

- The first Global Buddhist summit was held in Delhi. The aim of this summit is to set up a forum for the lay Buddhist scholars and Dharma Masters.
- The Ministry of Culture, in collaboration with its grantee body **International Buddhist Confederation (IBC)**, hosted the Global Buddhist Summit (GBS).
    - o IBC is a global organization representing the diverse Buddhist traditions from around the world. It was established in 2011 in New Delhi.
    - o **Aim**
        - ▪ Promoting and preserving the teachings and practices of Buddhism,

- ▪ Fostering inter-Buddhist dialogue and cooperation,
- ▪ Promoting peace, harmony, and
- ▪ Understanding among different religions and cultures.
- Theme of the two- day Summit - "***Responses to Contemporary Challenges: Philosophy to Praxis***".

Global Sovereign Debt Roundtable (GSDR)

Recently, the Global Sovereign Debt Roundtable (GSDR) met and discussed debt sustainability and debt restructuring challenges and ways to address them.

Key Highlights

1. **Outcomes of GSDR:**

- GSDR to focus on the actions that can be taken now to accelerate debt restructuring processes and make them more efficient, including under the **G20 Common Framework.**
- Participating leaders agreed on the **importance of urgently improving information sharing** including on macroeconomic projections and debt sustainability assessments at an early stage of the process.
- The IMF and World Bank will rapidly **issue staff guidance on information sharing** at each stage of the restructuring process.
- The meeting also discussed the **role of Multilateral Development Banks (MDBs)** in these processes through the <u>provision of net positive flows of concessional finance</u>.
  - o The term net positive flows means that the amount of concessional finance provided to a country is <u>greater than the amount of debt repayments</u> or other financial outflows that the country is required to make to the lender or donor.
  - o Concessional finance refers to the practice of providing financial resources to developing countries in the form of loans or grants at below-market interest rates or with favourable repayment terms.

2. **India's Suggestions:**

- As a priority for India's G20 Presidency, there is a need **to augment present global efforts, including those of the G20**, to address growing debt distress across the globe.
- India stressed on **debt transparency and information-sharing** as well as clarity on the comparability of treatment, predictability and timeliness of the debt restructuring process.

> **Global Sovereign Debt Roundtable (GSDR)**
>
> - *Started its work in (February) 2023, the roundtable is **co-chaired by the IMF, World Bank and India** (G20 Presidency) and comprises -*
>   - o *Official bilateral creditors (both traditional creditors members of the Paris Club and new creditors), Private creditors and Borrowing countries.*
> - *The objective of the GSDR is*
>   - o *To build greater **common understanding among key stakeholders** involved in debt restructurings,*
>   - o ***To work together on the current shortcomings** in debt restructuring processes, both within and outside the Common Framework, and ways to address them.*
> - *Its focus is on **process and standards** (not to discuss country cases) and **will not replace existing restructuring mechanisms** such as the Common Framework.*
> - *Instead, it will support those mechanisms by fostering greater common understanding on concepts and principles, which will in turn facilitate **individual restructurings**.*

[For detailed discussion on the issue of unsustainable debt levels, refer the topic ***"G20 finance meet"*** from The Recitals – February 2023]

Can Countries Be Sued Over Climate Change?

- Recently, the United Nations General Assembly (UNGA) passed a resolution seeking opinion from the ICJ regarding the accountability of countries towards climate change reduction, based on the promises made by these countries to the UNFCCC.

- The resolution, passed by consensus, had been pushed through by one of the smallest countries in the world, the Pacific Island of Vanuatu.

  o This island was devastated in 2015 by the effects of Cyclone Pam, believed to have been spurred by climate change.

Resolution Asked The ICJ To Deliberate On Two Questions

- These questions are:

  o What are the obligations of states under international law to ensure the protection of the climate system for present and future generations?

  o What are the legal consequences under these obligations for states where they, by their acts and omissions, have caused significant harm to the climate system.

- The resolution refers to several international protocols including the Paris Agreement (2015), the United Nations Convention on the Law of the Sea and even the Universal Declaration of Human Rights.

What is India's Position?

- **Cautiously Silent About The Move**

  o India has thus far been cautiously silent about the move, although it is generally supportive of the need for climate justice.

  o India is also vocal in holding the developed world accountable for global warming.

  o It has referred the resolution to legal authorities in the country who will look into the implications and international ramifications of the ICJ opinion.

- **India Did Not Co-sponsor The Draft Resolution**

  o India did not join the overwhelming majority of countries that co-sponsored the draft resolution.

- **Wait and Watch Mode**

  o India is watching how global powers like the U.S. and China respond to the resolution, as without their support, it will be hard to implement.

- **India Does Not Want Top-Down Approach In Climate Change Discussion**

  o India was among the countries which voiced concerns about whether launching a judicial process was the best way to reach shared goals.

    ▪ Successfully tackling the climate crisis is best achieved via diplomatic efforts.

  o As per India, top-down approach is not needed in the discussion around climate change.

Is The Advisory Opinion Of The ICJ Binding?

- The ICJ is being asked for an advisory opinion, which by definition would not be legally binding as an ICJ judgment.

- However, its clarification of international environmental laws would make the process more streamlined.

- The ICJ opinion would carry legal weight and moral authority in dealing with contentious issues such as:
  - climate reparations by the developed world,
  - legal culpability for countries that do not achieve their NDC promises, and
  - climate support to the most vulnerable parts of the world battling the effects of global warming.

UN Framework Convention on Climate Change (UNFCCC)

- UNFCCC is an intergovernmental treaty developed to address the problem of climate change.
- The Convention has near universal membership (197 Parties).
- The Convention was opened for signature at the June 1992 UN Conference on Environment and Development (UNCED) — also known as the Rio Earth Summit.
  - The UNFCCC entered into force on 21 March 1994.
- The original secretariat was in Geneva.
  - Since 1995, the secretariat has been located in Bonn, Germany.
- UNFCCC is the parent treaty of the 2015 Paris Agreement.
  - The main aim of the Paris Agreement is to keep the global average temperature rise this century as close as possible to 1.5 degrees Celsius above pre-industrial levels.
- The UNFCCC is also the parent treaty of the 1997 Kyoto Protocol.

DEFENSE AND SECURITY

FEMA Case Against BBC India

- The Enforcement Directorate (ED) has registered a case against the British Broadcasting Corporation (BBC) India under the **Foreign Exchange Management Act (FEMA)** for alleged foreign exchange violation.
    - BBC is the national broadcaster of the United Kingdom, based at Broadcasting House in London.
- The probe is essentially looking at purported foreign direct investment (FDI) violations by the company.

What is FEMA (Foreign Exchange Management Act)

- **About**
    - FEMA came in 1999 as a *successor to the Foreign Exchange Regulation Act or FERA* of 1973, with changing economic conditions in a post-liberalisation India.
    - The act seeks to regulate foreign exchange transactions, currency transactions, and foreign payments in order to promote orderly development and maintenance of the foreign exchange market in India.
- **Objective**
    - to facilitate **external trade** and payments,
    - to promote the orderly development and maintenance of foreign exchange market in India, and
    - to regulate the transactions related to foreign exchange.
- **Functions**
    - The FEMA regulates various aspects of foreign exchange transactions, including acquisition and holding of foreign exchange, payment and settlement of foreign exchange transactions, export and import of currency, and other related activities.
    - The act also empowers the RBI to make rules and regulations to carry out the provisions of the act. Violation of the provisions of FEMA can result in penalties and fines.

What Was Foreign Exchange Regulation Act or FERA

- FERA was designed for an era in India marked by a shortage of foreign exchange.
- It was aimed at **conserving forex** to ensure it was utilised only in the interest of the development of the country.
- The act provided the Indian government with extensive powers to regulate foreign exchange transactions and payments.
- This included the power to impose restrictions on the use of foreign exchange, to regulate the flow of foreign exchange, and to prohibit transactions that were deemed to be against the national interest.

Feature	FERA	FEMA
Introduction	Enacted in 1973	Enacted in 1999
Objective	To regulate foreign exchange transactions and payments	To facilitate external trade and payments, to promote the orderly development and maintenance of foreign exchange market in India, and to regulate the transactions related to foreign exchange
Emphasis	Control and Regulation	Management and Liberalization
Enforcement	More strict and restrictive	More liberal and flexible
Penalty	More severe	More moderate
Penalty Enforcement	Penalties and Fines only	Imprisonment, Penalties and Fines
Approach	Rule-based	Principle-based
Adjudication	Through FERA courts	Through FEMA adjudicating authorities and Appellate Tribunal
Foreign Investment	FERA was seen as a hindrance to foreign investment in India	FEMA seeks to encourage foreign investment in India by simplifying the rules and regulations related to foreign exchange transactions

Defence Ministry Refuses Nod To Prosecute 30 Army-Men Over Nagaland Killings

- The *Department of Military Affairs* under the Ministry of Defence has denied <u>sanction to prosecute</u> the 30 Army personnel.

- These Army personnel were allegedly found involved in the December **2021** firing incident in Nagaland's Oting village in which 14 civilians were killed.

Aftermath of Killing

- **Formation of Enquiry Commission**

  o Following the incident, which caused wide public outrage in Nagaland and the Northeast, the state government had formed a Special Investigation Team (SIT) to probe the matter.

> **Background**
> - Army para commandos were lying in wait for militants in Nagaland's Mon district.
>   o The commando team was deployed at a site between Tiru and Oting, about 100km from the Myanmar border.
>   o They apparently mistook the coal mine workers for their targets in the dark and started firing.
> - They shot and killed six villagers instead, all of them coal mine workers returning home in a van singing songs.
>
> **NAGALAND**
>
> - Soon after, a **village search party** attacked the soldiers, leading to firing in which seven more civilians died. A soldier was also killed.
> - Later, another civilian was killed in Mon, dominated by the **Konyak tribe**, when security forces repelled a mob attack on an Assam Rifles camp.
>   o With a population of roughly 3 lakhs, the area inhabited by the Konyaks extends **into Arunachal Pradesh, with a sizeable population in Myanmar** as well.
>   o Known to be one of the fiercest warrior tribes in Nagaland, the **Konyaks were the last to give up the practice of head-hunting.**
>   o Mon is the only district in Nagaland where separatist group **NSCN (IM)** has not been able to set up base camps, largely due to resistance from the Konyaks.

  o Separately, the Army initiated an independent **Court of Inquiry** to investigate the incident.

- **Findings of SIT**

  o The SIT completed its investigation and, based on its findings, filed a chargesheet in May 2022 at the district and sessions court in Mon.

  o It indicted all 30 personnel of the 21 Para Special Force team involved in the shooting.

- **Need For *Sanction To Prosecute* From The Centre**

  o These security personnel were operating in areas which are under the Armed Forces Special Powers Act (AFSPA), 1958.

  o **Section 7 of AFSPA** mandates prior executive permission from central or state authorities for prosecution of a member of the security forces

  o Hence, there is need for the sanction of prosecution from the Centre for initiating any proceedings against security forces personnel for any actions taken by them while discharging their duties.

[For detailed discussion on AFSPA, refer the topic "**AFSPA lifted from more areas in Northeast states**" from The Recitals – March 2023]

Army Commanders' Conference 2023

- Army Commanders' Conference (ACC) is an apex-level biannual event which is an institutional platform for conceptual level deliberations, culminating in making important policy decisions for the Indian Army.

- Recently, the first ACC for the year 2023 was held. For the first time, the conference was conducted in Hybrid format.

Key Highlights Of The Conference

- **Command Cyber Operations and Support Wings (CCOSW)**
  - The conference decided to implement Command Cyber Operations and Support Wings (CCOSW).
  - The CCOSWs will assist the Indian Army's formations in taking up cyberspace security challenges posed by the growing warfare capabilities of adversaries.
  - This is significant as China is developing a wide array of cyberweapons to degrade or destroy an adversary's military assets and strategic networks even before the actual conventional war kicks off.
    - China also regularly engages in malicious cyber activities as well as exploits cyberspace for its "**grey zone warfare**".
    - The term grey zone refers to the space between war and peace, where activities are not overtly violent, but can still have significant strategic consequences.
    - Grey zone warfare tactics can include cyber-attacks, disinformation campaigns, economic coercion, political subversion, and the use of proxies or other non-state actors to carry out activities on behalf of a state.
  - The Army believes the CCOSWs will help to safeguard its networks and increase the preparedness levels in this **fifth dimension of warfare** after *land, sea, air and space.*

- **Niche Tech-enabled Equipments –**
  - The Army is inducting a large number and variety of niche tech-enabled equipment.
  - These include cross-section of tactical, mini, micro, and logistics drones, UAVs, drone swarms, loiter weapon systems, electronic warfare, and anti-drone apparatus.
  - These equipments are intended to enhance the fighting potential of the field formations.

- **Training for Paralympic Events –**
  - It was decided to identify and train selected motivated soldiers for Paralympic Events by training them at Army Sports and Mission Olympic Nodes (ASMON) in nine sporting events.

Integration of Vibrant Villages Programme with PM Gati Shakti Mega Project Along China Border

- Centre's ambitious Vibrant Villages Programme (VVP) will be integrated with the Prime Minister Gati Shakti mega project.
  - VVP was launched to enhance infrastructure in villages along India's border with China, in states/UT like **Himachal Pradesh**, **Sikkim**, **Uttarakhand**, **Arunachal Pradesh** and **Ladakh**
- The Prime Minister Gati Shakti – National Master Plan was announced in 2021.
- It is essentially a digital platform to bring 16 Ministries including Railways and Roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects.

ENVIRONMENT AND GEOGRAPHY

Seed Bank At Asola Bhatti Sanctuary

A seed bank which collects and stores seeds of species of plants that are native to the **Aravallis**, is gradually taking shape at a nursery at the **Asola Bhatti Wildlife Sanctuary**.

About Seed Bank

- It is an important repositories of plant genetic resources for research & agriculture.

- **Aim:** To supply native plants to the city and reintroducing species that have become rare or hard to find.

- They store seeds of different plant varieties, which are conserved to maintain their genetic diversity and to preserve their ability to adapt to changing environmental conditions.

About Asola-Bhatti Wildlife Sanctuary
- It's covering 32.71 sq. km area on the Southern Delhi Ridge of Aravalli hill range on Delhi–Haryana border.
- It is part of the Sariska-Delhi Wildlife Corridor, which runs from the Sariska Tiger Reserve in Rajasthan to Delhi Ridge.
- Suraj Kund and Anangpur Dam in Haryana, Tughlakabad Fort and Adilabad ruins and Chhatarpur Temple in Delhi are the historical place around sanctuary.

India's Seed bank

- India has established its own seed storage facility at Chang La in Ladakh, Jammu and Kashmir.

- It has been created jointly by **Defence Institute of High-Altitude Research (DIHAR)** and **National Bureau of Plant Genetic Resources (NBPGR)** in 2010 under the aegis of DRDO.

- It stores over 5,000 seed accessions; one accession consists of a set of seeds of a particular species collected from different geographical and demographic locations.

Seed Bank in the World

- Svalbard Global Seed Vault or Doomsday Vault is the world's largest seed storage facility situated at **Norway**.

- *International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)* provides the international legal framework for the establishment of the Svalbard Global Seed Vault in Norway.

- The treaty provides solutions to achieve food and nutritional security as well as climate resilient agriculture.

- It formally acknowledges the enormous contribution of indigenous people and small-holder farmers as traditional custodians of the world's food crops.

- India is a signatory to the ITPGRFA.

International Day of Zero Waste

The world marked the 1st-ever International Day of Zero Waste on March 30, 2023.

Initiative By

- The United Nations Environment Programme (UNEP) and UN Human Settlements Programme (UN-Habitat) established the day in response to the worsening impacts of waste on human health, the economy and the environment.

Significance

- This day promotes SDGs 11 and 12, which aim to make **cities and communities more sustainable** and **promote responsible consumption and production**.

- The day calls upon all stakeholders, including governments, civil society, businesses, academia, communities to engage in activities that raise awareness of zero-waste initiatives.

Eravikulam National Park gets a Fernarium

A fernarium is set up inside the Eravikulam National Park.

A fernarium is a type of **botanical garden or greenhouse** that specializes in cultivating and displaying various species of ferns. 52 varieties of ferns had already been planted in the new fernarium.

About Ferns

These are a diverse group of plants that do not produce flowers or seeds but instead reproduce through spores. These are part of the Epiphytic family, which grow naturally in a soilless condition.

Habitat:

- Ferns are known for their ability to thrive in shady, damp environments, although there are some species that can tolerate drier conditions.

- Ferns have been around for over 350 million years and are found in almost every part of the world. They are commonly found in forests, along riverbanks, and in other moist habitats.

Significance:

- Ferns are important components of many ecosystems, providing food and habitat for a wide range of animals, including insects, birds, and small mammals.

- They also play a vital role in the **water cycle**, as they are able to absorb large amounts of water from the soil and release it into the atmosphere through a process called transpiration.

- Many ferns also have medicinal properties and have been used in traditional medicine to treat a variety of ailments.

- Ferns are also popular ornamental plants and are commonly grown in gardens and indoor spaces.

About Eravikulam National Park (ENP) or Rajamalai National Park

It was declared as a sanctuary with an objective of protecting the indigenous population of **Nilgiri Tahr** and was then upgraded as the national park in 1978.

Location	It is situated along the summit of the Western Ghats in the high ranges of Idukki, Kerala.
Climate	The Park receives heavy showers during the southwest (June/July) and retreating (October/November) Monsoons and is one of the wettest areas of the World.
Topography	The Anamudi peak is situated on the southern side of the park.
Vegetation	1) A major part of the park is covered with rolling grasslands, but several patches of shola forests are also found in the upper part of the valley.
	2) This is also the land of Neelakurinji, a flower that blooms once in twelve years.

Extra Mile
• India's first cryptogamic garden housing nearly 50 species of lichens, ferns and fungi was inaugurated in Uttarakhand's Dehradun district in 2021.
• In 2020, Uttarakhand Forest Department has developed "the country's first lichen park" in Munsiyari in Pithoragarh district. As the world is home to over 20,000 known species of lichens of which around 2,714 are found in India, with the hill-state of Uttarakhand alone recording the presence of over 600 lichen species in its territory.
• India's first Pollinator Park and India's largest aromatic garden is located at Nainital (Uttarakhand).

International Big Cats Alliance (IBCA)

The Prime Minister of India has launched the International Big Cats Alliance.

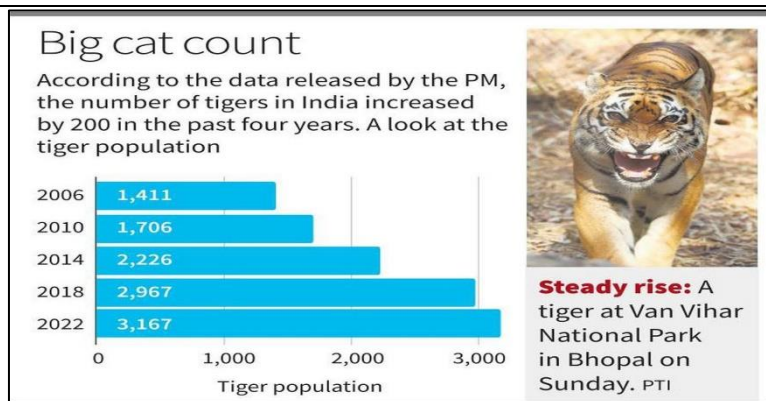**About International Big Cats Alliance (IBCA)**

- **50 years of Project Tiger (1973):** To mark this, the PM inaugurated the International Big Cat Alliance, the first of its kind in the country.

- It is a proposed mega-global alliance that will work toward the protection and conservation of the **seven major big cats.**

- Seven major big cats are tiger, lion, leopard, snow leopard, puma, jaguar and cheetah.

- Membership to the alliance will be open to 97 **range countries**, which contain the natural habitat of these big cats, as well as other interested nations, international organizations, etc.

- It is expected to sustain itself through contributions from the private sector, multilateral institutions and bilateral institutions and membership fees.

5th Cycle of All-India Tiger Estimation

Prime Minister of India released the summary report of the 5th cycle of the All-India Tiger Estimation.

Key Highlights of this Estimation

- The tiger population in India grew by 200 from 2018 to 2022.
  - The number of tigers in India was 3,167 in 2022, up from 2,967 in 2018.

Big cat count
According to the data released by the PM, the number of tigers in India increased by 200 in the past four years. A look at the tiger population

Year	Tiger population
2006	1,411
2010	1,706
2014	2,226
2018	2,967
2022	3,167

Steady rise: A tiger at Van Vihar National Park in Bhopal on Sunday. PTI

- The growth, however, slowed to 6.7% in these four years from around 33% during 2014-2018.

- The number of tigers has almost doubled in the last two decades in the country.

- *As many as 1,161 of India's tigers are now in Central India, 824 in the Western Ghats, 804 in the Shivalik Range, 194 in the North-eastern states and 100 in the Sunderbans.*

- The **Western Ghats have shown a significant fall** in the occupancy of tigers.

- Tiger occupancy has also declined in the states of Jharkhand, Odisha, Chhattisgarh, and Telangana.

- The north-western states such as Uttarakhand and Uttar Pradesh now have more tigers outside reserves, requiring officials to step up habitat conservation.

Tiger Census in India

- After the **Sariska** Tiger Reserve debacle (2005, Rajasthan), where **despite total local extinction of tigers**, **official records showed presence of substantial tigers** based on the **pugmark census**.

- This disaster prompted the PM of India to appoint the **Tiger Task Force** (TTF) with a mandate to develop a strategy for tiger conservation in India.

- Besides recommending the creation of the **National Tiger Conservation Authority** (NTCA), etc., the TTF also suggested **a country wide monitoring of tigers and their ecosystems**.
  - National Tiger Conservation Authority is a **statutory body**, constituted under **Wildlife (Protection) Act, 1972**
  - Chairman NTCA: Union Minister of Environment, Forest and Climate Change

- **NTCA in collaboration with the Wildlife Institute of India (WII)**, has conducted a national assessment for the "**Status of Tigers, Co-predators, Prey and their Habitat**" every four years since then.
- The first status assessment of **2006** was peer reviewed by the **International Union for Conservation of Nature** (IUCN).
- After identifying individual tigers from camera-trapped photos, the WII uses the Spatially Explicit Capture-Recapture (SECR) method to estimate the range of tiger abundance.

MEE Rating of Nagarjunasagar-Srisailam Tiger Reserve

The MEE rating of Nagarjunasagar-Srisailam Tiger Reserve has gone from good to very good as per the 5th cycle of **Management Effectiveness Evaluation (MEE)** conducted by the Centre.

About MEE Rating

- It is defined as the assessment of how well protected areas are being managed.
- The ratings are assigned in four categories - Very Good, Good, Fair, Poor.
- It has been adopted from *IUCN's WCPA (World Commission on Protected Areas)* framework of MEE.

About Nagarjunasagar - Srisailam Tiger Reserve
- The Tiger reserve is spread over 5 districts in Andhra Pradesh and Telangana. The area consists mostly of the Nallamala Hills. It is the **largest tiger reserve in India.**
- It was notified in the year of 1978 and came under the protection of Project Tiger in 1983.
- The Krishna River cuts the basin of this reserve.

- The government has been using the MEE to assess tiger reserves across the country since its inception in 2006.
- It is increasingly being used by governments and international bodies to understand the strengths and weaknesses of the protected area management systems.
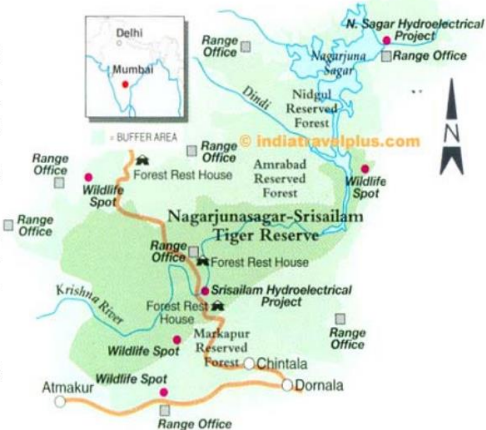
30 Years of Project Elephant

President of India inaugurates Gaj Utsav at Kaziranga National Park in Assam to mark 30th anniversary of Project Elephant (PE).

Status of Elephants in India

- India has the largest and the most stable population of Asian elephants. In fact, India is home to more than 60% of all wild Asian elephants.

Project Elephant
- It was launched by Ministry of Environment, Forest and Climate Change (MoEF&CC) in 1992 as a Centrally Sponsored Scheme.
- It was launched to provide financial and technical support to wildlife management efforts by states for their free-ranging populations of wild Asian Elephants.
- The Project is primarily being carried out in 16 States / UTs.

Objective of Project Elephant
- To protect elephants, their habitats and elephant corridors.
- To address issues of man-animal conflict.
- To ensure the Welfare of domesticated elephants.

- As per Elephant Census conducted in 2017, Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054), respectively

- Asian Elephant is listed as Endangered in IUCN Red List and Schedule I in Wildlife (Protection) Act, 1972.

Conservation Strategies for Elephant

- There are around **33 elephant Reserves** in India notified by the governments. The 1st elephant reserve was the Singhbhum elephant Reserve of Jharkhand.
- The elephant has been declared as the national heritage animal by the government of India in 2010.
- **Monitoring of illegal killing of elephants (MIKE)** programme was started in South Asia in 2003.
- The National Elephant Conservation Authority (NTCA) is now being created, in accordance with the Elephant Task Force (ETF) recommendations.
- MoEF&CC, in partnership with Wildlife Trust of India (WTI), has launched a campaign called **Hathi Mere Sathi.**
- The elephant task force (ETF) has recommended the campaign to Take Gajah (the elephant) to the Prajah (the people) in order to increase public awareness.

Heat Strokes

Eleven people died due to heatstroke in Mumbai.

About Heat Stroke (Sunstroke or Hyperthermia)
- It is the result of overheating of the body as a result of exposure to high temperatures and humidity, or due to prolonged physical exertion at high temperatures.   - It is considered a medical emergency requiring prompt attention.

Why Do Heat Strokes Happen?

- Exposed to extreme high heat, the body can't cool itself down accordingly. The hypothalamus (the part of the brain that controls many bodily functions and is a thermostat of sorts) sets core body temperature.
- It sets it at about 98.6 degrees Fahrenheit (37 degrees Celsius). But if your body absorbs more heat than it can release, your internal temperature rises above this set point.

Heat exhaustion is one of three heat-related illnesses, with heat cramps being the mildest and heat stroke being the most serious.

STAGE 1: HEAT CRAMPS	STAGE 2: HEAT EXHAUSTION	STAGE 3: HEAT STROKE
1) Severe muscle spasms occur as a result of salt and water loss following exposure to heat, most often in the hands, calves and the feet. 2) Muscle spasms can spontaneously stop on their own, but lingering symptoms of soreness often persist for 24-48 hours.	1) Heat exhaustion is a serious condition which occurs when the body's core temperature increases to 101-104 degrees Fahrenheit. 2) Symptoms include headache, low-grade fever, nausea or vomiting, increased thirst, generalised weakness, muscle ache and reduced urine output. 3) Feeling agitated and anxious are common and some people may even faint due to a drop in blood pressure.	1) The final stage is heat stroke, which is considered a medical emergency. 2) This potentially fatal condition is a result of prolonged heat exposure or physical exertion. 3) A heat stroke is characterised when the body's core temperature reaches 104 degrees Fahrenheit or higher. 4) Symptoms include confusion due to lack of blood flow to the brain, reddened dry skin, lack of sweat, dizziness, organ failure and at times convulsions.

Prevention & Treatment of Heat Stroke

- Drink water as often as possible, even if not thirsty and use a damp cloth on your head.
- Cover yourself well. Wear lightweight, light-coloured, loose, and porous cotton clothes.
- If you are aware of underlying health issues, avoid standing under the Sun for long.

- Avoid alcohol, tea, coffee and carbonated soft drinks. They are not a substitute for water.

{For more about heat wave, refer The Recitals - July 2022}

City Nature Challenge

Over 30 Indian cities are set to participate in the City Nature Challenge, an app-based competition that records observations of nature.

About City Nature Challenge

- It is an international effort to document nature in cities, taking place from April 28 to May 1, 2023. Globally 485 cities from across 46 countries are participating in City Nature Challenge (CNC).

- The Bombay Natural History Society, Worldwide Fund for Nature-India, and The Naturalist School has partnered to lead this event.

- First organised in the US in 2016 by the Natural History Museum of Los Angeles County and San Francisco's California Academy of Sciences, the event has now become a global citizen-science phenomenon.

- Individuals can simply take pictures of natural flora and fauna, anything from insects and fungi to flowers and trees, and then upload them in the iNaturalist app, which an AI powered application that can suggest the species name, automatically picks-up GPS coordinates for the observation from the image data.

- Once an observation is confirmed, it becomes available to scientists and researchers who can use this data to research different plant and animal species or determine the biodiversity in a region.
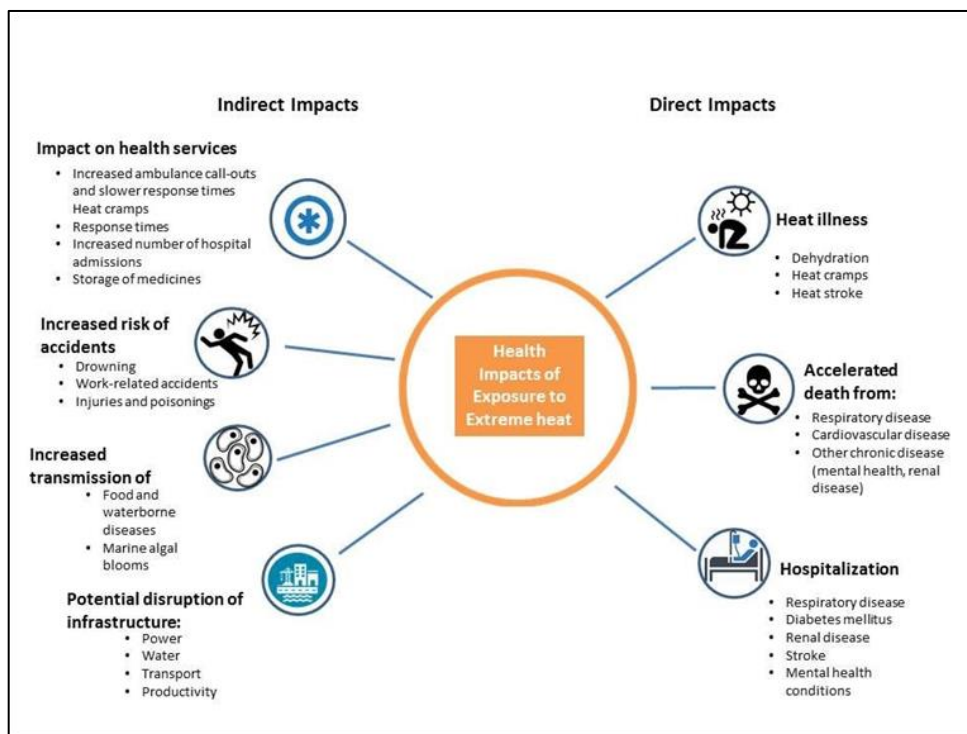
About Bombay Natural History Society (BNHS)

- It is a pan-India wildlife non-governmental research organization. It is one of the oldest scientific organizations in India, working for nature conservation since 1883.
- It is the partner of *BirdLife International in India* which releases State of the World's Birds (International's flagship science publication). It is published every five years.
- It has been designated as a Scientific and Industrial Research Organization (SIRO) by the Department of Science & Technology, Government of India.

Extra Mile
Internet of Birds
BNHS and Accenture Labs have jointly launched an initiative called "Internet of Birds".   • This cloud-based software utilizes Artificial Intelligence, including machine learning and computer vision, to identify various bird species from digital photographs.   • The platform is available for free and incorporates crowdsourcing to collect data and expand its database.

Gandhi Sagar Wildlife Sanctuary

Madhya Pradesh announced that Gandhisagar Sanctuary will be developed as a 2nd home for cheetahs within six months to retain the tag of cheetah state. The 1st was the Kuno Palpur National Park.

About Gandhi Sagar Wildlife Sanctuary (notified in 1974)

Location	• It is located in Madhya Pradesh, with one of its boundaries running along the border of Rajasthan. • The construction of the Gandhi Sagar Dam in 1960 saw a vast region submerged in its backwaters and was the reason for carving out this sanctuary.
Landscape	• A major part of the sanctuary consists of vast open landscapes with sparse vegetation and rocky terrain, with small patches of dense forests which is the ideal landscape for the cheetah. • River Chambal flows through the sanctuary, dividing it into two parts.
Flora	• The principal tree species found here are Khair, Salai, Dhawda, Tendu and Palash.
Fauna	• It is also a designated Important Bird and Biodiversity Area (IBA) as it boasts a large bird diversity with healthy populations. • Herbivores like Chinkara, Nilgai and Spotted Deer, and carnivores like the Indian Leopard, Striped Hyena and Jackal are found in good numbers in the region.
Other Features	• It has many important places such as Chaurasigarh, Chaturbhujnath temple, Bhadkaji rock paintings, Narsinghjhar Hinglajgarh fort, Taxakeshwar temple.

First Ever Census on Water Bodies in India

The Ministry of Jal Shakti has released the first-ever Census of Water Bodies across the nation.
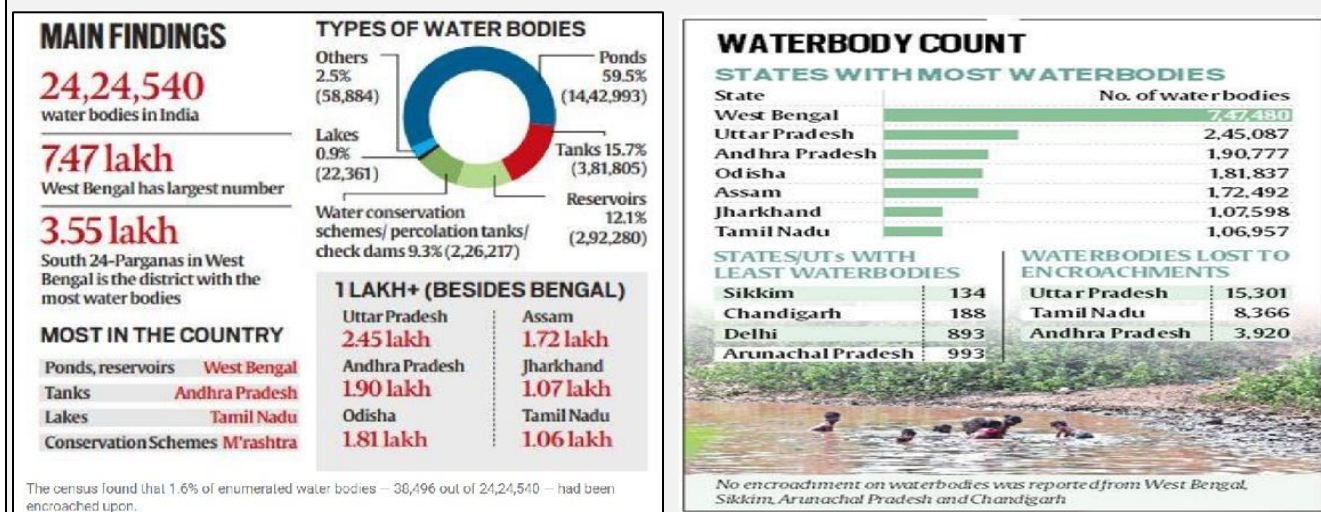
Key Highlight Of The Census

About the Census

• The Census was launched under the centrally sponsored scheme, "**Irrigation Census**" in convergence with the **6th Minor Irrigation Census** in order to have a comprehensive national database of all water bodies.

• The census provides a comprehensive inventory of India's water resources, including **natural and man-made water bodies** like ponds, tanks, lakes, and more, and to collect data on the encroachment of water bodies.

• It covered all the water bodies located in **rural as well as urban** areas that are *in-use or not in-use*.

• The census also took into account all type of uses of water bodies like *irrigation, industry, pisciculture, domestic/ drinking, recreation, religious, ground water recharge etc.*

Did The Census Cover All Water Bodies That Fit This Definition?

Seven specific types of water bodies were excluded from the count:

✓ Oceans and lagoons;

✓ Rivers, streams, springs, waterfalls, canals, etc. which are free flowing, without any bounded storage of water;

✓ Swimming pools;

✓ Covered water tanks created for a specific purpose by a family or household for their own consumption;

✓ A water tank constructed by a factory owner for consumption of water as raw material or consumable;

✓ Temporary water bodies created by digging for mining, brick kilns, and construction activities, which may get filled during the rainy season; and

✓ Pucca open water tanks created only for cattle to drink water.

MAIN FINDINGS

24,24,540
water bodies in India

7.47 lakh
West Bengal has largest number

3.55 lakh
South 24-Parganas in West Bengal is the district with the most water bodies

MOST IN THE COUNTRY

Ponds, reservoirs	West Bengal
Tanks	Andhra Pradesh
Lakes	Tamil Nadu
Conservation Schemes	M'rashtra

TYPES OF WATER BODIES

Others 2.5% (58,884)
Ponds 59.5% (14,42,993)
Lakes 0.9% (22,361)
Tanks 15.7% (3,81,805)
Water conservation schemes/ percolation tanks/ check dams 9.3% (2,26,217)
Reservoirs 12.1% (2,92,280)

1 LAKH+ (BESIDES BENGAL)

Uttar Pradesh 2.45 lakh	Assam 1.72 lakh
Andhra Pradesh 1.90 lakh	Jharkhand 1.07 lakh
Odisha 1.81 lakh	Tamil Nadu 1.06 lakh

The census found that 1.6% of enumerated water bodies — 38,496 out of 24,24,540 — had been encroached upon.

WATERBODY COUNT

STATES WITH MOST WATERBODIES

State	No. of water bodies
West Bengal	7,47,480
Uttar Pradesh	2,45,087
Andhra Pradesh	1,90,777
Odisha	1,81,837
Assam	1,72,492
Jharkhand	1,07,598
Tamil Nadu	1,06,957

STATES/UTs WITH LEAST WATERBODIES

Sikkim	134
Chandigarh	188
Delhi	893
Arunachal Pradesh	993

WATERBODIES LOST TO ENCROACHMENTS

Uttar Pradesh	15,301
Tamil Nadu	8,366
Andhra Pradesh	3,920

No encroachment on waterbodies was reported from West Bengal, Sikkim, Arunachal Pradesh and Chandigarh

- Out of 24.24 lakh water bodies in the country, 97.1% or 23.55 lakh are in rural areas, and only 2.9% or 69,485 are in urban areas.

- 78% water bodies are man-made water bodies whereas 22% are natural water bodies. 1.6% (38,496) water bodies out of all the enumerated water bodies are reported to be encroached out of which 95.4% are in rural areas and remaining 4.6% in urban areas.

- 55.2% of water bodies are owned by private entities, while 44.8% are in the domain of public ownership.
  - Out of all public owned water bodies, maximum water bodies are owned by Panchayats, followed by State Irrigation/State WRD.
  - Out of all private owned water bodies, maximum water bodies are in hands of Individual owner/farmer followed by group of individuals and other private bodies.

Seamounts

In an astonishing discovery, scientists have reported finding 19,325 new seamounts after poring through new high-resolution data.

What Are Seamounts

- Seamounts are underwater mountains that rise hundreds or thousands of feet from the seafloor but do not reach the surface of the water.

- They are generally extinct volcanoes that, while active, created piles of lava that sometimes break the ocean surface.

- They are typically conical or dome-shaped, with steep slopes and rugged terrain

Formation of Seamounts

- Seamounts are formed through volcanic activity. These are formed near mid-ocean ridges, where the earth's tectonic plates are moving apart.

- The highest mountain on Earth is actually a seamount—Hawaii's Mauna Kea, a dormant volcano

- It is more than 30,000 feet tall measured from its base on the seafloor 18,000 feet beneath the surface.

Significance of Seamount

- Seamounts are recognised as hotspots for marine life. Like volcanoes on land, seamounts can be active, extinct or dormant volcanoes.

- These provide hard foundations for deep-sea life to settle on and grow.

- Oceanographers also study it to understand their influence on how water circulates and absorbs heat and carbon dioxide.

- Scientists are also investigating whether seamounts act as oases or "stepping stones" for life amid barren expanses of seafloor.

- They can provide important habitats for a variety of marine life, including fish, corals, and sponges. Some seamounts are also home to unique and endemic species that are found nowhere else in the world.

Coastal Aquaculture Authority

- It was established by the Coastal Aquaculture Authority Act, 2005.It is **under the Ministry of Fisheries, Animal Husbandry and Dairying**

- Serving or retired Judge of a High Court shall be the Chairperson of the Authority, who is appointed by the Central Government.

- The main objective is to regulate coastal aquaculture activities in order to ensure sustainable development without causing damage to the coastal environment.

Safety Across Asia For Global Environment (SAFE)

- It was launched by United Nations (coordinated by the United Nations Office on Drugs and Crime (UNODC)) in 2021 and will run until 2024.

- It aims to focus on the connection between wildlife trafficking and zoonotic disease transmission with the aim to prevent future pandemics.

- Four Asian countries China, Thailand, Vietnam and Laos were initially selected for the survey under the project.

Biomass Pellets

- These are a popular type of biomass fuel. They are generally made from wood wastes, agricultural biomass, commercial grasses and forestry residues.

- Biomass Co-firing revised policy 2021 mandates the use of 5% biomass pellets made primarily of agro-residue along with coal in thermal power plants.

- It is renewable, widely available, carbon-neutral and has the potential to provide significant employment in the rural areas.

Great Pacific Garbage Patch

- It is a collection of marine debris in the North Pacific Ocean, also known as the Pacific trash vortex (formed by a combination of ocean currents and wind patterns).

- It is divided into two parts - the Eastern Garbage Patch that extends from California to Hawaii and the Western Garbage Patch that extends from Hawaii to Japan.

- The plastic in the Great Pacific garbage patch is primarily composed of microplastics. These microplastics are a major concern because they can be ingested by marine animals, leading to health problems and potential toxicity.

- The patch shifts from west to east and north to south, based on seasonal changes in winds and currents.

ASTM Certification (American Society for Testing and Materials)

- It is the process by which a product or material is tested and evaluated against relevant ASTM standards.
- ASTM standards are used by industry, governments and other organizations to ensure quality, safety and reliability in products and processes.
- ASTM International is a global organization that develops and publishes technical standards for a wide range of products, materials and systems.

Snowpack

- Snow that has fallen on the ground and does not melt for months due to below-freezing temperatures is called snowpack.
- It can consist of multiple layers of snow, each one from a different snowfall, that become compacted under the weight of the subsequent layers that lie on top.
- It remains on the ground until the arrival of above-freezing temperatures in the spring, which causes it to start to melt. The water from the melting snowpack is called snowmelt.
- In mountainous regions, snowpack serves as a natural reservoir of water that slowly melts throughout the spring and summer, providing a steady source of water for rivers, streams, and other waterways.

Zero Shadow Day

- It is a phenomenon where the sun is exactly overhead and vertical objects appear to cast no shadow.
- It happens twice a year for every point on Earth between the Tropic of Cancer and the Tropic of Capricorn.
- Zero shadow days have cultural and religious significance in some regions, and are celebrated as festivals or holidays. For example, in India, the zero shadow day during the summer solstice is known as "Mithuna Sankranti" and is considered auspicious for beginning new activities and projects.

Species In News

Mangrove Pitta Bird	• It belongs to the family of pittas, the Pittidae.
	• It is a colourful bird which have black head with brown crown, white throat, greenish upper parts, buff under-parts and reddish vent area.
	• It foraging on the ground and resting on the trees.
	• It is found in **mangrove and nipa palm forests**
	• It mainly found in India, Bangladesh, Myanmar, Thailand, Malaysia, Singapore and Indonesia.
	• It is listed as Near Threatened in the IUCN Red list.
Toque Macaque	• It is a reddish-brown-coloured Old World monkey endemic to Sri Lanka, where it is locally known as the rilewa.
	• The most characteristic feature of this primate is the toque-like swirl of hair on its head top.
	• They are highly social animals, living in units of up to 40 individuals.

	• It is listed as Endangered in the IUCN Red List.
Caltoris bromus sadasiva	• Researchers have recently discovered Caltoris bromus sadasiva near Akkulam and Vembanad Lake in Kerala. • It is a skipper butterfly. • It belongs to Hesperiidae family of Lepodopetra (moth and butterfly). • It is also the first record of the species Bromus swift (Caltoris bromus). • It is found in the Western Ghats and Peninsular India.
Prosopis Chilensis	• A study has revealed that an alien invasive plant Prosopis chilensis is threatening to pulverise native vegetation across 21 islands in the Gulf of Mannar Biosphere Reserve. • It is a drought-resistant plant native to the arid regions of four South American countries such as Argentina, Bolivia, Chile, and Peru. • It is a small to medium-sized legume tree and has a shallow and spreading root system. • It is a common ruderal weed, either growing singly or in groups. • It is also known as Chilean mesquite.
Garra Laishrami	• It is a new cyprinid fish species of the Garra genus found in the Kolab River. • These are characterised by the presence of a gular disc developed from tissues of the gular region that exhibit variation in the size, shape, and arrangement of the snout tubercles. • The species is edible and local people consume it. • The fish is usually found under rocks, stones and boulders of torrential streams and rivers.
Cycas pectinata	• It belongs to the family Cycadaceae. • It is an evergreen, palm-like plant which is the only cycad species found in Bhutan. • It is one of the most ancient gymnosperms, possibly originating in the late Carboniferous period 300-325 million years ago. • It is listed as Vulnerable in the IUCN red list.
Amolops siju	• Researchers from the Zoological Survey of India have discovered a new species of frogs called Amolops siju • It has been discovered from deep inside the Siju Cave in the South Garo Hills of Meghalaya. • The genus Amolops is one of the largest groups of ranid **frogs** with currently over 70 known species that are widely distributed across India, Nepal, Bhutan, China.
Tripedalia Maipoensis	• The new species of box jellyfish discovered by the team has been named Tripedalia maipoensis. • Box jellyfish are a small group, with only 49 species reported worldwide. • It has a transparent, colourless body and three tentacles at each of its four corners.

Mexican Giant Turtle	• It is also called the **Red Eared Slider.** It is the most destructive among the seven turtle species found in the world. • It native to the south-eastern USA and Mexico but have found their way across the globe, including India, through the trade of exotic animals. • It occurs in a wide variety of aquatic habitats, but it prefers a mud bottom, and abundant basking sites. • It lives in both natural waters (including rivers, sloughs, and oxbow lakes) and human-made waters (such as ditches, ponds, and reservoirs). • It is known for its bright red circular or oblong spots near its ears.
Piarosoma arunachalensis	• Researchers have discovered a new moth from Talle Wildlife Sanctuary in Arunachal Pradesh. • It is a Burnet moth and is largely day-flying. • It belongs to the family Zygaenidae, which includes Forester and Burnet moths. • Their colours are either dazzling or so cryptic that easily camouflage with their surroundings.
Capulopsyche keralensis	• The newly found bagworm moth species was named Capulopsyche keralensis. • It belongs to the moth family psychidae, which consists of very small moths. • It is characterized by the case-building behavior of larvae and a high degree of sexual dimorphism. • The larvae of this species were found scraping on the bark of trees, they seem to feed on the bark tissues and depositions (algae) on the bark.

SCIENCE AND TECHNOLOGY

Project Sky Canvas

A Tokyo-based space company, ALE, announced that it will create the world's 1st artificial meteor shower in 2025 under the project **Sky Canvas.**

About Sky Canvas Project

Aims & Objectives
• To give people all over the world the opportunity to view the world's first live human-made meteor shower
• To collect atmospheric data in the mesosphere (the third layer of the atmosphere).
• To study the path and light emission of shooting stars for shedding light on the mechanisms of climate change.
Meteor-replicating Metallic Particles (Diameter of 1 cm & mass of a few grams)
• Particles will be installed in a satellite 400 km up and then released over a designated area.
• The pea-sized balls have a secret chemical formula that causes them to light up from the friction of re-entry at speeds of up to five miles (8km) a second.
• The ingredients in the pellets can be altered to change the colour, which means that a multi-coloured flotilla of shooting stars could be created.

{For more About Meteor Showers refer The Recitals- December 2022}

Dhawan II Engine

Recently, Indian Private space vehicle company Skyroot Aerospace test-fired its 3D-printed Dhawan II engine for a duration of 200 seconds.

About Dhawan II Engine

- It is a 3D-printed **cryogenic engine** developed for Vikram II (Rocket).
- It uses a 3D-printed torch igniter and bellows actuated cryo-injection valve with a quick response time.
- It utilises two high-performance rocket propellants, liquid natural gas (LNG) and liquid oxygen (LoX), which require cryogenic temperatures (below -150° Celsius) for storage and operation.
- A cryogenic engine enhances the payload-carrying capacity of a rocket.

Vikram engine series
- It is a series of launch vehicles to be launched by Skyroot space.
- These vehicles are specially crafted for the small satellite market.
- **Vikram-1** - It is based on a solid propulsion engine. After Skyroot successfully designed and developed the solid propulsion rocket engine, it became the 1st private firm in the country to do so.
- **Vikram-2** - This heavier vehicle is using a cryogenic engine. It will be launched into orbit in the next 2 years

Lynx-U2 Fire Control System

The defence ministry signed a contract with Bharat Electronics Limited (BEL) for the procurement of 13 Lynx-U2 fire control systems for the Navy.

About Lynx-U2 Fire Control System

- It is a *naval gun fire control system* designed and developed indigenously.

- It precisely monitors air/surface targets and generates target data to determine weapon aiming locations and engage targets.
- It will be installed on the *NOPV (Naval Offshore Patrol Vessel),* Talwar and Teg class of ships.
- It will eliminate the dependency on foreign OEMs (Original Equipment Manufacturers).
- It will enhance the navy's ability to detect and engage targets with greater accuracy, minimizing collateral damage.

About Bharat Electronics Limited

- It is an Indian Government-owned aerospace and defence electronics company.
- It was founded in Bangalore, Karnataka in 1954.
- It primarily manufactures advanced electronic products for ground and aerospace applications.
- It has been granted Navratna status by the Government of India.

DAGGER Model

NASA researchers have developed a new computer model, called the **Deep Learning Geomagnetic Perturbation (DAGGER) model**

About DAGGER Model

- It combines artificial intelligence and agency satellite data, to forecast <u>geomagnetic disturbances</u> and provide a warning for impending solar storms.
- DAGGER has studied NASA data to find connections between *solar activity and damaging geomagnetic activity through a process called deep learning.*
- DAGGER can currently predict a geomagnetic disturbance 30 minutes before the event. While 30 minutes might not seem like much warning, it could be just enough time for infrastructure systems to enact safety protocols to avoid damage. Plus, the DAGGER model has an open-source code, which means that multiple users — say, power companies or satellite operators — can adapt DAGGER to their specific needs.
- The potential of this model was assessed using data from two geomagnetic storms that occurred in August 2011 and March 2015.


Chondrostereum Purpureum

The 1st case of a plant fungus called Chondrostereum purpureum infecting human beings has been reported from Kolkata.

Chondrostereum Purpureum (Plant Fungus)	Chondrostereum Purpureum Infection in a Human
- Often found on old stumps and dead wood but can also be a serious parasite of living trees. - Causes silver leaf disease in plants, particularly those in the rose family - Spread by airborne spores landing on freshly exposed sapwood	- The symptoms include hoarse voice, cough, fatigue, and difficulties swallowing. - These symptoms are caused by the fungus invading the man's larynx, making it difficult for him to speak and swallow. - This has raised concerns about the potential dangers of fungal infections in humans.

Fungal Disease/Infection (mycosis)

- Fungi are everywhere, but only some cause disease. Fungal infection occurs after spores are either breathed in, come into contact with skin or enter the body through the skin such as via a cut, wound or injection.

- It is more likely to occur in people with a weak immune system. Diagnosis is generally based on signs and symptoms, microscopy, culture, sometimes requiring a biopsy
- Treatment is generally performed using antifungal medicines, usually in the form of a cream or by mouth or injection. Some require surgically cutting out infected tissue.
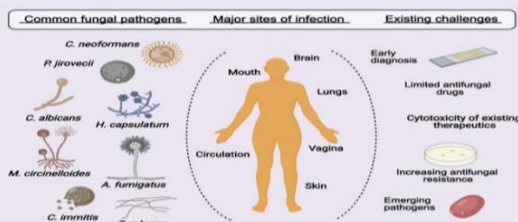
Some examples of common fungal diseases

- **Athlete's foot:** A common fungal infection of the skin that typically affects the feet, causing itching, redness, and peeling of the skin between the toes and on the soles of the feet.
- **Ringworm:** A fungal infection of the skin, hair, or nails caused by dermatophyte fungi. It can cause circular or ring-shaped rashes on the skin, and can also affect the scalp, nails, and groin area.
- **Candidiasis:** An overgrowth of the Candida fungus, a type of yeast, that can cause infections in various parts of the body, including the mouth (thrush), genitals (yeast infection), and bloodstream (invasive candidiasis).
- **Rust diseases:** Fungal diseases that cause rust-colored spots on the leaves, stems, and sometimes fruits of plants, which can lead to reduced plant vigor and yield losses.
- **Mucormycosis (Black Fungus Disease)**, a serious fungal had been observed in a number of Covid-19 patients.

Genome India Project

The secretary of the Department of Biotechnology (DBT) said that under the Genome India project, close to 7,000 genomes have been sequenced.

About Genome India Project

	• Taking inspiration from the **Human Genome Project**, the Department of Biotechnology (DBT) launched this ambitious project in January 2020. • The project has been described by the researchers as the 1st scratching the surface of India's vast genetic diversity.
Scope and Objectives	• The Genome India Project aims to collect and analyze the genomic data of over 10,000 individuals from Pan India, representing the diverse population of the country. • The project seeks to identify genetic variations and correlate them with health outcomes, disease risks, and drug responses.
Research Areas	• The Genome India Project focuses on understanding the genetic basis of common diseases such as diabetes, cardiovascular diseases, cancer, and genetic disorders. • It also aims to study **pharmacogenomics**, which involves understanding how genetic variations influence individual responses to drugs. • The project also aims to explore the genetic diversity and evolutionary history of Indian populations, including identifying population-specific genetic markers.
Data Collection and Analysis	• The Genome India Project involves collecting genomic data from participants through various methods, including *DNA sequencing, genotyping, and phenotypic data collection* (such as health history, lifestyle, and environmental factors). • The collected data is then analyzed using advanced bioinformatics tools and techniques

About Genome

- The genome is the _complete set of genetic material or DNA_ (deoxyribonucleic acid) present in an organism. It contains all the genetic information necessary for an organism's growth, development, functioning, and reproduction.

- The genome is organized into individual units called **genes**, which are responsible for encoding proteins, the building blocks of cells and the key functional molecules in biological processes.

- **The human genome consists of about 3 billion base pairs of DNAs, which are organized into 23 pairs of chromosomes.**

- Genomes are composed of DNA molecules, which are made up of **nucleotides.**

  o Nucleotides are the basic units of DNA, consisting of a sugar molecule (deoxyribose), a phosphate group, and one of four nitrogenous bases: adenine (A), cytosine (C), guanine (G), or thymine (T).

- The sequence of these bases in DNA determines the genetic code, which provides instructions for the synthesis of proteins, the functional molecules that carry out most of the tasks in cells.

Human Genome Project
- It was the international, collaborative research program (began in 1990 and was completed in 2003) for complete mapping and understanding of all the genes of human beings.
- It contained information from a region of the human genome known as the euchromatin where the chromosome is rich in genes and the DNA encodes for protein.

Crab Nebula

NASA's Imaging X-ray Polarimetry Explorer (IXPE) captured a crab nebula like never before.

About Crab Nebula

What is Crab Nebula?	• The Crab Nebula is a supernova remnant (a mass equivalent to two Suns) located in the constellation of Taurus, about 6,500 light-years away from Earth. • It is one of the most famous and well-studied objects in the night sky, and it is a prime example of a supernova remnant, which is the aftermath of a massive star that exploded in a supernova explosion. • It was the 1st astronomical object recognized as being connected to a supernova explosion.
Discovery of Crab Nebula	• The Crab Nebula was observed by Chinese astronomers in the year 1054 AD. • The explosion was so bright that it was visible during the day and remained visible in the night sky for several weeks. • Today, the Crab Nebula spans about 10 light-years in diameter and is expanding at a rate of about 1,500 kilometers per second.

Features

- The Crab Nebula is also a powerful source of high-energy particles, including electrons and positrons, which are accelerated to nearly the speed of light by the pulsar's magnetic field.

- The pulsar at the center of the Crab Nebula is a highly compact and incredibly dense object, about 1.4 times the mass of the Sun but only about 20 kilometers in diameter.

- These particles create a complex and dynamic environment within the nebula, producing features such as jets, wisps, and rings that are visible in various wavelengths of light.

  o Its radiation has been detected over the entire measurable spectrum, from radio waves to infrared and visible wavelengths to ultraviolet, X-rays and gamma rays.

About Nebula

- Nebulae are vast clouds of dust, gas, and other interstellar matter that exist in space.
- It is believed that they are formed by the collapsing of the interstellar medium, which then comes together because of the gravitational pull of the particles.
- They are some of the most beautiful and intriguing objects in the universe, and they come in a wide variety of shapes, sizes, and colors.
- Nebulae are often associated with star formation, as they are the birthplaces of new stars. They can also be the remnants of dying stars or the result of violent stellar explosions.
- Nebulae are not only visually stunning but also play a crucial role in the formation and evolution of galaxies.
- They are often referred to as the "building blocks" of the universe, as they are responsible for creating the raw materials from which stars, planets, and other celestial objects form.

Raccoon Stealer

Eight Central government entities, including central paramilitary forces and the Income Tax department, were targeted by the Raccoon Stealer malware

About Raccoon Stealer

- It is an _information stealer malware_ that retrieves sensitive data from infected machines.
- It is usually delivered through email.
- Raccoon Stealer is typically distributed through various methods such as phishing emails, malicious websites, social engineering attacks, or by being bundled with other software.
- Once it infects a victim's computer, Raccoon Stealer can run silently in the background, collecting data from the victim's system and sending it to the attacker's command and control (C&C) server.
- It gathers personal information including passwords, browser cookies and autofill data, as well as crypto wallet details. It also records system information such as IP addresses and geo-location data.
- It is available as Malware-as-a-service (MaaS). This means that anyone can buy this malware and use it for malicious purposes.

MeerKAT Telescope

Astronomers used machine learning to mine data from South Africa's MeerKAT telescope.

About MeerKAT Telescope (Originally Known as Karoo Array Telescope (KAT))

- It is situated in South Africa's Northern Cape province and is a precursor to the Square Kilometre Array (SKA) telescope.
- It is an array of 64 large antenna dishes. The antennas are connected and work together as an interferometer, which is a type of radio telescope that uses the interference of radio waves to create high-resolution images of the sky.
- MeerKAT is one of the most sensitive **radio telescopes** in the world, capable of detecting extremely faint radio signals from astronomical objects, such as galaxies, pulsars, and quasars.

Cassiopeia A

NASA's James Webb Space Telescope captured never before seen detail of Cassiopeia A.

About Cassiopeia A or Cas A (located nearly 11000 light years away from earth)

- It is a remnant of a supernova explosion and is situated in constellation **Cassiopeia.**

- Cas A emits radiation across a wide range of wavelengths, from radio waves to X-rays. It is one of the strongest sources of radio emission in sky beyond solar system.

Magnetoresistance

Researchers have found that graphene displays an anomalous **Giant magnetoresistance (GMR)** at room temperature.

About Magnetoresistance & Role of Graphene in Magnetoresistance

- Magnetoresistance refers to the *change in electrical resistance of a material in the presence of an external magnetic field.*
- It is a phenomenon observed in certain materials which can be either an increase (positive magnetoresistance) or a decrease (negative magnetoresistance) in resistance.

Applications of Magnetoresistance

- **Magnetic Sensors**: Magneto-resistive sensors are known for their high sensitivity, fast response times, and small size, making them suitable for a wide range of industrial, automotive, consumer electronics, and medical applications.
- **Data Storage:** GMR is used in magnetic read heads of hard disk drives (HDDs) to read data from the magnetic disks.
- **Medical Applications:** Applications in medical devices, such as magnetic resonance imaging (MRI) and magnetic biosensors. In MRI, the magnetoresistance of certain materials is used to create high-resolution images of the internal structures of the body, allowing for non-invasive diagnostics.
- **NDT (Non-Destructive Testing):** MNDT techniques to detect flaws, cracks, or defects in materials such as metals, composites, and concrete, making them valuable in industrial applications for quality control.

Role of Graphene In Magnetoresistance

Graphene, a two-dimensional material composed of a *single layer of carbon atoms arranged in a hexagonal lattice*, has been found to exhibit magnetoresistance. The role of graphene in magnetoresistance can be understood in several aspects:

- **High Electrical Conductivity**: This high electrical conductivity of graphene enables the observation of magnetoresistance effects with relatively low magnetic fields and makes graphene a suitable material for magnetoresistive applications.
- **Chemical Doping**: Graphene can be doped with impurities or functionalized with certain chemical species, which can alter its electronic properties and magnetic behavior.
- **Strain Engineering**: Applying strain to graphene can also modify its electronic properties and lead to changes in its magnetoresistance.

LIGO-India Project

The Union Cabinet approved to set up a *gravitational-wave detection facility* in Maharashtra (**Hingoli district**). The facility's construction is expected to be completed by 2030.

✓ LIGO-India received the Central government's in-principal approval in February 2016. Since then, the project reached several milestones towards selecting and acquiring a site and building the observatory.

About LIGO (Laser Interferometer Gravitational-wave Observatory)

- It is the world's most powerful observatory that exploits the *physical properties of light and of space itself to detect and understand the origins of gravitational waves.*

- LIGO uses a technique called **interferometry** to detect gravitational waves. It consists of two identical L-shaped interferometers.
- *When a gravitational wave passes through the interferometer, it causes tiny changes in the length of the arms, resulting in changes in the interference pattern of the laser beams. By precisely measuring these changes, LIGO can detect and characterize gravitational waves.*
- LIGO has made several additional detections of gravitational waves from various sources, including *binary black hole mergers, binary neutron star mergers, and other cosmic events*.

About LIGO-India

- The observatory will be the 5th of its kind, made to the exact specifications of the **twin LIGO**, in **Louisiana and Washington** in the U.S. LIGO-India will work in tandem with them.
    o Besides the US, such gravitational wave observatories are currently operational in Europe and Japan.
- It will be built by the Department of Atomic Energy and the Department of Science and Technology, with a MOU with the U.S. National Science Foundation.
- The U.S. will provide key components for the lab worth around Rs 560 crore.

What is LIGO-Virgo?

- Apart from the two Interferometers based in the US, there is a third interferometer as well.
- It is located in **Santo Stefano, Italy** and known as **LIGO-Virgo**.
- Working in collaboration, the three facilities help confirm that any signal one facility picks up is a true gravitational wave detection and not random noise.
- In January 2020, LIGO-Virgo detected a collision between a black hole and a neutron star.

LIGO KAGRA

- KAGRA is a gravitational wave detector, located underground in Gifu Prefecture, **Japan**.
- It is Asia's first gravitational wave observatory.

Why is A Fifth LIGO Observatory Needed?

- Extremely low strength of gravitational waves make their detection very difficult.
- Therefore, LIGO-India is part of the plan **to expand the network** of gravitational wave observatories **in order to increase the chances of detecting these waves** from anywhere in the observable universe.
- This will improve the **accuracy and quality** of information taken from them.
- The information could be used in the field of gravitation, relativity, astrophysics, cosmology, particle physics, and nuclear physics.

ABOUT GRAVITATIONAL WAVE

- Gravitational waves are **ripples in the fabric of spacetime** caused by the acceleration of massive objects, such as stars or black holes that propagate through the universe at the speed of light. They are generated by violent cosmic events, such as the collision of two massive black holes, the merger of neutron stars, or the explosive birth of a of massive objects, such as stars or black holes that propagate through the universe at the speed of light. They are generated by violent cosmic events, such as the collision of two massive black holes, the merger of neutron stars, or the explosive birth of a supernova. supernova.
- They were first predicted by Albert Einstein's theory of General Relativity in 1916 and were directly detected for the first time in 2015, leading to a ground-breaking discovery that confirmed a major prediction of Einstein's theory.
    o In 2017, this experimental verification of the century-old theory received the **Nobel Prize in Physics** (to Rainer Weiss, Barry C. Barish and Kip S. Thorne).
- Gravitational waves are incredibly faint and extremely difficult to detect, as they cause tiny distortions in the fabric of spacetime. To detect them, scientists use highly sensitive detectors, such as LIGO and Virgo
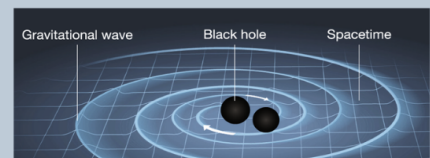
Tropospheric Emissions Monitoring of Pollution (TEMPO)

Tropospheric Emissions Monitoring of Pollution (TEMPO) was NASA's instrument launched by using SpaceX Falcon 9 rocket

About TEMPO

What is TEMPO?	• TEMPO is a NASA Earth Venture Instrument (EVI) mission designed to measure air pollution from space. • It will be placed in **geostationary orbit** where it will monitor major air pollutants across North America.
Goal of The Mission	• To provide high-resolution, near-real-time measurements of air quality parameters over a large spatial domain, with a focus on monitoring emissions of pollutants in the troposphere, the lowest layer of Earth's atmosphere where weather occurs and where most air pollution impacts human health and the environment.
Features	• TEMPO will measure a variety of air pollutants, including nitrogen dioxide (NO_2), sulfur dioxide (SO_2), formaldehyde (HCHO), aerosols, and ozone (O_3). • It will also help in the study of the movement of pollution from forest fires and volcanoes and even the effects of fertiliser application. • It will join South Korea's *Geostationary Environment Monitoring Spectrometer* and the European Space Agency's Sentinel-4 satellite • Later it will become an air quality monitoring satellite constellation that will track pollution across the Northern Hemisphere.

Solar Prominence

A dynamic moment of a turbulent wall of plasma falling down the Sun's surface just like a waterfall was captured by Argentina-based astronomer. The phenomenon captured in the photo is called solar prominence.

About Solar Prominence

- A solar prominence, also known as a **polar crown prominence (PCP),** is a large, bright feature that extends outward from the Sun's surface.

- These are anchored to the Sun's surface in the photosphere, and extend outwards into the Sun's hot outer atmosphere, called the corona.

- They are often observed in rings around the Sun's poles and are sometimes referred to as **'plasma waterfalls'** due to their tendency to collapse back to the Sun's magnetic fields near the poles.

- Prominences are made up of hot, glowing plasma, composed of charged hydrogen and helium. They can persist in the Sun's corona for several months, looping thousands of miles into space.

- Despite extensive research, scientists are still studying the formation mechanisms and reasons behind prominences.

Bioluminescence

The bioluminescence phenomenon was seen in the Visakhapatnam beaches.

About Bioluminescence

Bioluminescence refers to the ability of certain living organisms to produce and emit light through chemical reactions occurring within their bodies.

Process of Bioluminescence	• It typically involves a complex series of biochemical reactions. In most cases, it starts with a molecule called **luciferin**, which is oxidized by an enzyme called **luciferase** in the presence of oxygen, ATP (adenosine triphosphate) • This reaction results into the release of energy in the form of light.
Occurrence of Bioluminescence	• Bioluminescence is widespread among deep sea animals in general. • Many marine creatures like sponges, jellyfish, worms, species of fish, arthropods, echinoderms and unicellular alga. • This phenomenon is found in various forms of life, including bacteria, fungi, algae, insects, and plankton etc.
Purpose of Bioluminescence	• It can be used for communication, such as attracting prey or repelling predators, as well as for camouflage, mating, and navigation. • Bioluminescent markers and genes have been engineered into other organisms, including plants and animals, to track gene expression, monitor biological processes, and study diseases.

Wheat Blast

Scientists have warned that the **fungus** Magnaporthe Oryzae Triticum pathotype (MoT), which is destroying South American wheat crops, could spread worldwide.

About Fungus MoT (Wheat Blast)	• The pathogen affects the crop in a disease known as wheat blast. Wheat blast causes ripe wheat to turn whitish and dry up. • MoT infects all above ground plant parts and causes leaf lesions and head blight. • They can infect many grasses, including barley, lolium, rice, and wheat. • It spreads through infected seeds and crop residues as well as by spores that can travel long distances in the air. • Wheat blast can infect large areas in a short time and render an area infertile for two to three years. The crop fungi are known to mutate and adapt to new conditions.
History of Wheat Blast	• Researchers' 1st detected this pathogen in Brazilian wheat crops in the 1985. • Asia's 1st outbreak was reported in Bangladesh in 2016 and Africa in 2018.
Effect of Wheat Blast	• Once it strikes, the entire crop must be burnt, and the ash disposed to prevent a return the next season. • Wheat blast is known for its rapid and destructive nature, causing significant yield losses and economic impacts on wheat production. • Scientists say entire fields can go sterile if the disease spreads, which happens either by air or through stubble.
Prevention of Wheat Blast	• Fungicides are expensive and provide only a partial defense. They must be applied well before any symptoms appear. Fungus is physiologically and genetically complex, so even after more than three decades, scientists do not fully understand how it interacts with wheat or which genes in wheat confer durable resistance.

Plant Pandemic In The Past

• One of the worst plant diseases was the **Panama disease**, which destroyed banana plantations in Central and South America in the 1950s, devastating a critical food source and industry.

- It was first defeated by the introduction of the now-familiar Cavendish banana variety, which was resistant.
- However, through mutation, a variant of the disease can now infect these plants and threatens commercial banana production globally.

Way Ahead

- Thus, the threat of a plant pandemic is real and plant diseases are going to spread all over the world through the impacts of climate change and globalization.
- The global community should follow the spread of this fungus using methods like genetic monitoring used to track the spread and mutations of coronavirus.
- Genome surveillance, especially in countries neighbouring the affected areas, will help to understand how to control the spread of the fungus.

About Wheat

- It is a Rabi crop which requires a cool growing season (10-15°C) and bright sunshine (21-26°C) at the time of ripening. It requires rainfall around 75-100 cm.
- It is the 2nd most important cereal crop in India after rice.


TeLEOS-2 & Lumelite-4

ISRO successfully placed two Singaporean satellites, TeLEOS-2 and Lumelite-4, into Low Earth Orbit (LEO) from the Satish Dhawan Space Centre in Sriharikota

About ISRO's Mission

- The mission marked the 57th flight of PSLV and the 16th mission using the PSLV Core Alone configuration, the lightest version of the launch vehicle as it has four core stages and no strap-on boosters to provide an added thrust.

Polar Satellite Launch Vehicle (PSLV)

- PSLV has a four-stage system comprising a combination of solid and liquid-fuelled rocket stages.
- It is the first Indian launch vehicle to be equipped with liquid stages.
- The PSLV has been used for numerous successful missions, including the launch of India's first lunar probe, Chandrayaan-1, in 2008, and the Mars Orbiter Mission, also known as Mangalyaan, in 2013, which made India the first Asian country to reach Mars orbit.
- It has been used for a wide range of missions, including Earth observation, communication, navigation, scientific research, and interplanetary exploration.
- The PSLV-XL is an extended payload capacity compared to the standard PSLV. It has been instrumental in India's space exploration and satellite deployment efforts.
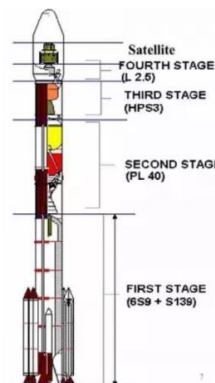
- The mission also had a PSLV Orbital Experimental Module (POEM), where the spent PS4 stage of the launch vehicle would be utilized as an orbital platform to carry out scientific experiments through non-separating payloads.

About TeLEOS-2 (741 kg)

- It is designed to capture satellite imagery in all-weather and round-the-clock conditions.
- It carries a made-in-Singapore Synthetic Aperture Radar (SAR) capable of providing 1 m resolution data.
- It will provide high-resolution imagery for various applications such as disaster management, resource monitoring, and environmental monitoring.

About Lumelite-4 (16 kg)

- Lumelite-4 is an advanced 12U satellite developed for the technological demonstration of the high-performance space-borne VHF(Very high frequency) data exchange system.
- It aims to augment Singapore's electronic navigation maritime safety systems.

Exobiology Extant Life Surveyor (EELS)

NASA is developing a snake-like robot known as **Exobiology Extant Life Surveyor (EELS)** which it says can boost space exploration through its diverse adaptability to various terrains.

About Exobiology Extant Life Surveyor (EELS)

EELS Architecture	• It is a snake-like, self-propelled robot that has gripping mechanisms and propeller units underwater, enabling the robot to access a plume vent exit.
Science Objective	• Data from the Cassini spacecraft suggests that Saturn's moon Enceladus has a liquid ocean beneath its icy surface. This makes Enceladus a prime candidate for habitability. • The proposed EELS mission architecture is designed to adapt to the challenges of exploring such environments
Benefit	• This system can explore Ocean World by its diverse adaptability to various types of terrains. EELS allows for deeper exploration into areas that were once unattainable.

N-nitrosodimethylamine (NDMA)

The Gujarat High Court has issued a notice to the Drug Controller General of India (DCGI) seeking immediate phasing out of drugs containing carcinogenic impurities like NDMA from the Indian market.

About N-nitrosodimethylamine (NDMA)

NDMA	• It is a volatile, combustible, yellow, oily liquid nitrosamine with a faint characteristic Odour that decomposes when exposed to light. • It is classified as a probable human carcinogen that can cause cancer based on animal studies. • NDMA has been found to be present in various consumer products, including some foods, beverages, and pharmaceuticals, as well as in environmental sources such as water and air.
Formation of NDMA	• NDMA is formed during the production of certain chemicals, such as pesticides and rubber products, as well as during the treatment of wastewater and drinking water with chloramines, a common disinfectant used in water treatment. • It can also be formed in the stomach when certain foods, such as processed meats, are digested.
Effect of NDMA	• The International Agency for Research on Cancer (IARC), which is part of the World Health Organization (WHO), has classified NDMA as a Group 2A carcinogen, which means it is probably carcinogenic to humans based on animal studies and limited evidence in humans. • It emits toxic fumes of nitrogen oxides when heated to decomposition. Exposure to NDMA irritates the skin and eyes and damages the liver. • Animal studies have shown that NDMA can cause tumors in various organs, including the liver, lung, kidney, and gastrointestinal tract.
Regulatory guidelines around the world	• United States Environmental Protection Agency (EPA) and the European Medicines Agency (EMA) have set limits for NDMA in drinking water and pharmaceutical products to reduce human exposure.
Risk reduction	• Follow food safety practices, such as avoiding consumption of processed or cured meats in excess, and cooking foods properly. • Use water filters or obtain information on the NDMA levels in your drinking water

Aptamers

A team of researchers developed an <u>electronic biosensor</u> based on **DNA aptamers** that can detect biomarkers in whole blood samples without the use of reagents.

About Aptamers

- They are small (usually from 20 to 60 nucleotides) single-stranded RNA or DNA oligonucleotides able to bind target molecules with high affinity and specificity.

- They are often referred to as "chemical antibodies" due to their ability to selectively recognize and bind to a wide range of targets, including proteins, nucleic acids, small molecules, and even whole cells.

- Aptamers have several advantages over traditional antibodies as molecular recognition tools. They are *typically smaller in size, which allows for better tissue penetration and access to targets in tight spaces.*

- They are widely used in diagnostics, therapeutics, and research. Aptamers can be used as biosensors for the detection of specific targets, as drug delivery vehicles for targeted therapy, and as tools in research for protein purification, imaging, and modulation of biological functions.

- They have found applications in fields such as cancer therapy, infectious disease diagnosis, environmental monitoring, and personalized medicine, among others.

Electromagnetic Ion Cyclotron (EMIC) Waves

Scientists have identified Electromagnetic Ion Cyclotron (EMIC) waves, a form of **plasma waves** in the Indian Antarctic station, Maitri and studied its characteristics.

- Plasma waves are a type of electromagnetic wave that propagates through plasma, which is a state of matter.

- Plasma is formed when a gas is heated to high temperatures or subjected to strong electric fields, causing its atoms to become ionised, meaning they lose or gain electrons and become charged particles.

- More than 99% of the matter in the visible universe consists of plasma

About Electromagnetic Ion Cyclotron (EMIC) Waves

- EMIC waves are a type of plasma wave that <u>occurs in the Earth's magnetosphere.</u>

- They are electromagnetic waves that are generated by the interaction between charged particles (ions) from the solar wind and the Earth's magnetic field.

- EMIC waves have been implicated in various space weather phenomena, including the acceleration and loss of charged particles in the magnetosphere, the modulation of the **Earth's radiation belts**, and the generation of auroras.

- They also have implications for the dynamics of planetary magnetospheres in other celestial bodies, such as Jupiter and Saturn.

- These waves originate in equatorial latitudes and propagate along magnetic field lines to its footprint in the high-latitude ionosphere.

- These waves play an important role in precipitation of killer electrons, which are hazardous to our space-borne technology/instruments.
  - Killer electrons are electrons having speed close to speed of light, which form the radiation belt of planet Earth. These are highly energetic particles.

> **About Maitri (India's 2nd Research Station In Rocky Mountainous Area called Schirmacher Oasis)**
> - It was build in 1989 in Antarctica as part of the Indian Antarctic Programme for collecting Geological data and understanding Climate Change.

- Dakshin Gangotri was the 1st station build in 1983, is now operating as a base transit camp mainly for supplying goods.
- The newest and the 3rd base commissioned in 2012 is Bharati.

Fengyun-3 (FY-3) Satellite

China has successfully launched the Fengyun-3 (FY-3) **meteorological** satellite. It is the 2nd generation of Polar-Orbiting Environmental Satellites. The first two, FY-3A and FY-3B, were launched successfully in 2008 and in 2010, respectively.

Purpose/Application of FY-3

- **In Natural Calamities:** to provide critical information on severe weather conditions including heavy rainfall, which may result in natural calamities such as landslides and floods.
- **For Meteorologists:** to provide critical data to meteorologists, such as atmospheric profiles and cloud movement, climate science, and space weather research.
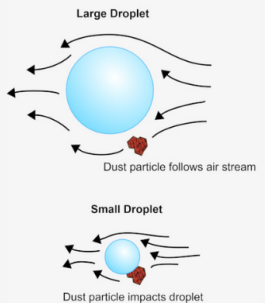
3200 Phaethon

A study has revealed that the mysterious comet-like tail of **asteroid 3200 Phaethon**, is not composed of dust as previously believed.

About 3200 Phaethon

- 3200 Phaethon is classified as a "rock comet" because it exhibits characteristics of both asteroids and comets. It is blue in colour, which is rare for an asteroid.

The Dust Theory

- Most meteor showers are the result of comets, so when scientists found that **Phaethon's orbit matched that of the Geminid meteors**, they assumed that the tail was made of dust blown off the asteroid's surface by the Sun's heat.
- In 2009, NASA's Solar Terrestrial Relations Observatory (STEREO) confirmed the existence of Phaethon's tail, supporting the dust theory.
- A recent study has revealed that the mysterious comet-like tail of asteroid 3200 Phaethon, is not composed of dust as previously believed. Instead, the tail consists of sodium gas, challenging long-held scientific assumptions

- It was discovered in 1983, using the Infrared Astronomical Satellite (IRAS). It is named after the Greek mythological figure Phaethon, who was the son of the Sun God Helios.
- It is 5.8 km in diameter and is the parent body of the Geminids meteor shower of mid-December.
- It orbits the sun every 524 days. Its orbit is highly elliptical. It completes a rotation on its axis every 3.60 hours.

Asteroid	Comets
• Asteroids are rocky or metallic objects that orbit the Sun, mostly found in the _asteroid belt between Mars and Jupiter_, although some are located in other regions of the Solar System.	• Comets, on the other hand, are **icy bodies** that also orbit the Sun, but they typically originate from the _outer Solar System beyond the orbit of Neptune_, in a region known as the **Kuiper Belt or the Oort Cloud**.
• Asteroids are typically composed of rock, metal, and sometimes ice, and they are usually small in size, ranging from a few meters to several hundred kilometers in diameter.	• Comets are composed of ice, dust, and rock, and they often have a distinct coma and a tail that can be visible from Earth when they pass close to the Sun.
• They do not have a coma (a fuzzy cloud around them) or a tail like comets.	• The heat from the Sun causes the ice in the comet to vaporize, creating the coma and tail.

LockBit Ransomware

It has been found that LockBit ransomware was found to be targeting Mac devices.

About Ransomware

What is Ransomware?	• Ransomware is a type of malicious software (malware) that encrypts the files on a victim's computer or network, making them inaccessible, and demands a ransom payment in exchange for the decryption key.
	• The ransom is typically demanded in cryptocurrency, which makes it difficult to trace.
Ransomware Attack Mechanism	• Ransomware attacks can be carried out through various means, such as email phishing, exploit kits, or remote desktop protocol (RDP) attacks.
Consequences of Ransomware Attack	• Loss of critical data, financial losses, damage to the reputation of the affected entity, stealing sensitive data
How To Protect From Ransomware Attack?	• Maintain up-to-date antivirus software, backup critical data regularly, avoid clicking on suspicious links or attachments in emails, and keep all software and operating systems updated with the latest security patches.
	• In case of a ransomware attack, it is recommended not to pay the ransom as it only encourages the attackers and may not result in the decryption of the data.

About LockBit Ransomware (formerly known as ABCD Ransomware)

- It was first appeared in 2019 and is called a crypto virus, because it asks for payment in cryptocurrency to unlock the files.
- One of the distinguishing features of LockBit is its use of double extortion tactics. In addition to encrypting the victim's data, LockBit also steals sensitive information from the victim's system and threatens to release it publicly if the ransom is not paid.
- It focuses mostly on enterprises and government organizations rather than individuals.
- It has been used to target companies in many different countries, including U.S., China, India, Ukraine, and Europe.

Biotechnology Related News

T cells and B cells Difference	
B-cells	**T-cells**
It produces antibodies to fight bacteria and viruses.	It attacks other cells in the body that have become cancerous or that were overtaken by viruses.
It originate in Bone marrow and also mature in the bone marrow	It originate in bone marrow but travel to the thymus and mature there
Its life span is short	Its life span is long

Clinical Trials Registry-India (CTRI)

- CTRI is a free and online public database of clinical trials that are conducted in India. It was launched in 2007 by the Indian Council of Medical Research (ICMR) in collaboration with the WHO International Clinical Trials Registry Platform (ICTRP).
- The purpose of CTRI is to provide a platform for the registration and disclosure of clinical trials conducted in India, with the aim of improving transparency and accountability in clinical research.

- The trial registration in the CTRI has been made mandatory by the Drugs Controller General India.

Diseases Related News

Endometriosis

What is it?	It is a disease in which tissue similar to the lining of the uterus grows outside the uterus.
Cause	Not known, but it is believed to be related to hormonal imbalances and genetic factors.
Symptoms	• It can cause severe pain in the pelvis and make it harder to get pregnant. • It can start at a person's 1st menstrual period and last until menopause.
Treatment	Includes pain medication, hormone therapy to reduce the growth of endometrial tissue, and surgery to remove the tissue.

Notifiable Disease (Reportable Disease)

- It is any disease that is required by law to be reported to government authorities.
- This will allow authorities to gather information to monitor the disease, and provide early warning of possible outbreaks and formulate a plan for elimination and control.
- The Centre has notified several diseases such as cholera, diphtheria, encephalitis, leprosy, meningitis, whooping cough, plague, tuberculosis, AIDS, hepatitis, measles among others.

PRET Initiative (The Preparedness and Resilience to Emerging Threats)

- PRET initiative was announced at the Global Meeting for Future Respiratory Pathogen Pandemics in April 2023 in Geneva, Switzerland.
- The aim of the PRET initiative is to strengthen countries' abilities to prepare for, detect, and respond to emerging infectious disease threats.
- It is aligned with the World Health Assembly resolutions on strengthening preparedness for health emergencies.

Juice Mission

- **Jupiter ICY Moons Explorer Mission** to be launched by European Space Agency (ESA).
- It will spend at least three years making detailed observations of the giant gaseous planet Jupiter and three of its largest moons, Ganymede, Callisto and Europa.
- It will understand if the oceans of these icy moons could have ever been suitable habitats for life.

Odd Radio Circle

- It is a very large unexplained astronomical object/Phenomenon. It is highly circular and brighter along its edges.
- It can only be seen in radio wavelengths and cannot be observed at visible, infrared or X-ray wavelengths.
- It could be remnants of thermonuclear supernovae triggered by the explosion of a white dwarf star in a binary system heavier than 1.4 times the mass of the Sun.

Cultural Promotion Through ICCR

- The Indian Council for Cultural Relations (ICCR) plans to expand the country's artistic and creative footprint globally, by tapping into the experiences of *foreign students* studying in India.

- The ICCR will start **E-3, or Exit Engagement Evenings** with foreign students, beginning three or four months before they finish their courses in various Central and State universities. The engagements would also include visits to places of national importance.

- At present, the ICCR has finalized the *Khadi Commission, the Indian Tourism Development Corporation and the Department of AYUSH* to hold these evenings with the students.

- There are plans to rope in Tribal Cooperative Marketing Development Federation (TRIFED), which markets the produce and products of tribal people.

- This "soft diplomacy" is meant to spread the India story when students go back to their home countries. It is expected that they will become brand ambassadors of India's heritage, tourist destinations, textiles, yoga, Ayurveda, and craft.

- The idea is that they bring back some business to India besides maintaining their Indian linkages.

- In 2022, ICCR had also launched a website called the **India Alumni Portal** as a platform to connect with foreign students around the world who have studied in India.

- The portal is envisaged to be a single platform for all past and present foreign scholars to register, interact, and maintain their Indian links.

Foreign Students Studying In India

- According to the latest All India Survey on Higher Education (AISHE) by the Ministry of Education, the number of foreign students enrolled in Indian higher education institutions was 48,035 in 2020-21, a marginal dip from 49,348 in 2019-20.

- People from more than 160 countries visit India to study. Nepal, Afghanistan, Bangladesh, U.S., UAE, Bhutan, Sudan, Nigeria, Tanzania, and Yemen were the countries from which majority of the students came.

Pushkaralu Festival

- The 12-day Pushkaralu festival of Telugu-speaking people was recently held in Varanasi. Pilgrims worship their ancestors in this festival.

- It is being organised in Varanasi (Ganga River) this year after a gap of 12 years due to a special combination of planetary transits.

- As per the legend, after severe penance, the devotee Pushkara was blessed by Lord Shiva with the ability to live in water and purify holy rivers.

- On a request from Bṛhaspati (Jupiter), Pushkara decided to enter one of the 12 sacred rivers — Ganga, Yamuna, Godavari, Krishna, Kaveri, Bhima, Tapti, Narmada, Saraswati, Tungbhadra, Sindhu, and Pranhita.

- Each river has its zodiac sign. The river for each year's festival is decided in accordance with Brihaspati travel from one zodiac sign to another.

Thirunelly Temple

- The **Indian National Trust for Art and Cultural Heritage (INTACH)** has urged the government to conserve the historically significant structures, including the 600-year-old Vilakkumadom.

- Vilakkumadom is an exquisite granite structure, at the Sree Mahavishnu Temple at Thirunelly in Wayanad district.

- It is said that the work was launched by the king of Coorg without the permission of the temple's custodian, the **Kottayam Raja.** Later, the Kottayam Raja ordered to stop the construction work, and the structure remained untouched afterwards

- With its history tracing back to the **15th century** AD involving certain stories related to the architecture and style of the temple, we observe that its key elements have not been valued or taken into account seriously during the renovation process.

- Thirunelly temple is one of the most ancient temples in Kerala. Located on the foot of Brahmagiri hills, the temple is dedicated to Lord Vishnu. It is also known as **Sahyamala Kshetram** and **Kashi of the South**.

- It is believed that Lord Brahma established the idol of Lord Vishnu in this temple. Lord Brahma is said to have found the idol on a gooseberry (amla) tree, locally known as nelli, thus giving Thirunelli its name.

- On the western side of the temple is the cave temple Gunnika, dedicated to Lord Shiva. Thus Thirunelli becomes blessed by the unique presence of all the members of the trinity (Brahma, Vishnu, Shiva).

Indian National Trust for Art and Cultural Heritage (INTACH)

- INTACH is a non-profit charitable organisation registered under Societies Registration Act, 1860.

- It was founded in 1984 with the vision to spearhead heritage awareness and conservation in India.

- Today INTACH is recognized as one of the world's largest heritage organizations, with over 190 Chapters across the country.

- Headquartered in New Delhi, it operates through various divisions such as Architectural Heritage, Natural Heritage, Material Heritage, Intangible Cultural Heritage, Heritage Education and Communication Services (HECS), Crafts and Community Cell, Chapters, INTACH Heritage Academy, Heritage Tourism, Listing Cell and Library, Archives and Documentation Centre.

- In 2007, the United Nations awarded INTACH a special consultative status with the United Nations Economic and Social Council.

Abhilekh Patal

- The Prime Minister, Narendra Modi has praised Abhilekh patal a portal with over 1 Crore pages of historical records of the National Archives.

- The name 'Abhilekh patal' comes from the Sanskrit word 'Abhilekh' meaning the records of ancient times and the word 'patal' meaning the platform, board or a surface.

- It is an online portal to access National Archives of India's reference media and its digitized collections via the internet.

National Archives of India

- The **National Archives of India** (**NAI**) is a repository of the non-current records of the Government of India and holds them in trust for the use of administrators and scholars.

- **Established in 1891 at Calcutta (Kolkata)** as the Imperial Record Department, it is the biggest archival repository in South Asia.

- It has a vast corpus of records viz., public records, private papers, oriental records, cartographic records and microfilms, which constitute an invaluable source of information.

- It functions as an Attached Office of the Department of Culture under the **Ministry of Culture**.

- The **Director General of Archives**, heading the Department has been given the mandate for the implementation of the Public Records Act, 1993.

Yangli Festival

- The Yangli festival of the Tiwa community was recently held in **Assam.** The Yangli festival, also known as the Lakshmi Puja of the Tiwa people was organised in the Guva region of the state.

- The Tiwa community mainly depends on agriculture as their main livelihood and this festival is also related to the same.

- During the Yangli festival, the people pray for a good harvest and ask the Gods to protect their crops from pests and natural calamities.

- This festival is celebrated <u>once every five years</u> by the members of the community. Rice is one of the main crops of the region and the sowing of seeds for paddy starts soon after the completion of this festival.

- The festival is the opportunity to welcome the Goddess Lakshmi to the earth and to bless them with a good harvest in the coming years.

- Ceremonious sacrifices of animals including poultry and goats are done on the eve of the puja to welcome the goddess to the "NoBaro" or the granary of the Tiwa people.

Uttaramerur Inscription

- The Prime Minister recently referred to the **Uttaramerur inscription in Kanchipuram, Tamil Nadu**, while discussing India's democratic history.

- While Uttaramerur has multiple inscriptions spanning centuries, the most famous one – being referred to by the PM – is from the reign of **Parantaka I** (907-953 AD).

- These provide a detailed description about the <u>village's self-governance</u> and have been cited by historians and political leaders alike as evidence of India's history of democratic functioning.

Uttaramerur

- Uttaramerur lies in present-day Kanchipuram district, approximately 90 km southeast of Chennai.

- Today, it is a small town and had a population of roughly 25,000 in the census of 2011. It is known for its historic temples built during **Pallava and Chola rule**.

- The famous inscription from Parantaka I's reign is found on the walls of the Vaikunda Perumal Temple.

- The inscription gives details of the functioning of the local sabha, i.e. the village assembly.

- A sabha was an assembly exclusively of brahmans and had specialised committees tasked with different things.

- The Uttaramerur inscription details how members were selected, the required qualifications, their roles and responsibilities, and even the circumstances in which they could be removed.

Democracy in Uttaramerur Inscription

- While the Uttaramerur inscription gives details of local self-governance, on closer inspection, it is far from a truly democratic system.

- Not only does it restrict sabha membership to a tiny <u>subsection of land-owning brahmans</u>, it also does not have true elections. Rather, it chooses members from the eligible pool of candidates through a draw of lots.

- However, this does not mean that this inscription should not be cited as a precedent for democratic functioning.

- The idea of a democracy, as understood today, is a fairly recent phenomenon. The United States, often hailed as the epitome of a liberal democracy, only gave universal adult franchise to its population in 1965.

- What the Uttaramerur inscription details is a system of local self-government, outside the direct authority of the king.

- Furthermore, the inscription is like a constitution – it describes both the responsibilities of members of the sabha as well as the limitations to the authority of these members.
- If the rule of law (rather than rule by personal diktat) is an essential component of a democracy, the Uttaramerur inscription describes a system of government which follows just that.

Guru Tegh Bahadur

- Parkash Purab of Sri Guru Tegh Bahadur, the ninth guru of the Sikhs, was recently celebrated.
- The Guru was born in Amritsar in 1621 to **Mata Nanki and Guru Hargobind**, the sixth Sikh guru, who raised an army against the Mughals and introduced the concept of warrior saints.
- As a boy, Tegh Bahadur was called Tyag Mal because of his ascetic nature. He spent his early childhood in Amritsar under the tutelage(teachings) of **Bhai Gurdas**, who taught him Gurmukhi, Hindi, Sanskrit, and Indian religious philosophy, while **Baba Budha** trained him in swordsmanship, archery, and horse-riding.
- At the age of 13, Tegh Bahadur distinguished himself in a battle against a Mughal chieftain. His bravery and heroic swordsmanship in the battle earned him the name of Tegh Bahadur. ("Tegh" is 'sword' in Punjabi.)
- He was married to Mata Gujri at Kartarpur in 1632, and he subsequently left for Bakala near Amritsar.
- He traveled extensively to preach the teachings of Nanak and contributed many hymns to the Guru Granth Sahib including the Saloks, or couplets.
- He is regarded as the **saviour guru**, as during the reign of the Mughals, there were oppressions in which people were forced to convert to Islam under the Mughal ruler Aurangzeb.
- And in that period of time, he resisted the forced conversions of non-Muslims to Islam.
- Later, Guru Tegh Bahadur was executed on the orders of Aurangzeb in Delhi in 1675. His martyrdom is remembered as the **Shaheedi Divas** every year on November 24.