Current Affairs

(CONSOLIDATION)

APRIL 2023
(PART – II)

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Polity and Governance

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WRITS

Drishti IAS

TYPE OF WRIT	PURPOSE	CAN BE ISSUED AGAINST	CAN'T BE ISSUED AGAINST
Habeas Corpus	Direct the release of a person detained unlawfully	A. Public authorities B. Private individuals	A. Lawful detention B. Proceeding concerns contempt of court/legislature C. Detention outside the court's jurisdiction
Mandamus	Direct a public authority to do its duty	A. Public body B. Corporation C. An inferior court D. Tribunal E. Govt	A. Pvt. individual/body B. A discretionary duty C. Contractual obligation D. President, Governor E. CJI, CJ of HC acting in Judicial capacity
Quo Warranto	Direct a person to vacate an office assumed wrongfully	Only against judicial/quasi-judicial authorities	Administrative, legislative and pvt bodies and individuals
Prohibition	Prohibit a lower court from proceeding on a case	Judicial, quasi-judicial and admin. authorities	Legislative and pvt bodies and individuals
Certiorari	A higher court removes a proceeding from lower court & bring it before itself	Only a statutory/ constitutional public office	A. Ministerial office B. Pvt office

CONSTITUTIONAL PROVISIONS

- **Article 32:**
  - SC can issue writs
  - Parliament can empower any other court to issue writs (however, no such provision exists till now)

  > *Under Article 32, the SC is constituted as a defender and guarantor of the fundamental rights*

- **Article 226:**
  - HCs can issue writs

  > *Before 1950, only the HCs of Calcutta, Bombay and Madras had power to issue writs*

WRIT JURISDICTION

CHARACTERISTICS	SUPREME COURT	HIGH COURT
Purpose of Issuing Writs	Only to enforce Fundamental rights	To enforce legal as well as Fundamental rights
Writ can be issued against a person/govt	Located anywhere throughout the territory of India	Located only within its territorial jurisdiction or if action arises within its territorial jurisdiction
Right to refuse exercising writ jurisdiction	N/A because Article 32 is an FR itself	May refuse; as a remedy under Article 226 is discretionary

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CGTMSE Scheme

Why in News?

The Ministry of MSME recently launched the revamped **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)** Scheme.

What is the CGTMSE Scheme?

➢ **About:**
- It was launched in **2000** to make available **collateral-free credit to the micro and small enterprise sector.**

➢ **Scope:**
- Both the **existing and the new enterprises are eligible** to be covered under the scheme.

➢ **Funding:**
- The corpus of CGTMSE is contributed by the **GoI and SIDBI** in the **ratio of 4:1 respectively.**
- The Ministry of MSMEs, and **Small Industries Development Bank of India (SIDBI)** established a trust named **Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)** to implement the **CGTMSE Scheme.**

➢ **Financial Inclusion for MSMEs:**
- While launching the revamp of CGTMSE, it was announced that CGTMSE will collaborate with National Institute for MSME, Hyderabad for **setting up a Centre of Financial Inclusion.**
- The Centre is expected to provide **financial literacy and credit counselling to MSEs,** thus helping them to better **utilize the benefits of the CGTMSE Scheme.**

> **Note:** SIDBI was set up in April 1990 under an Act of the Indian Parliament, acts as the **Principal Financial Institution for the Promotion, Financing, and Development of the MSME sector** as well as for coordination of functions of institutions engaged in similar activities.

What is the Revamped CGTMSE?

➢ **Major Changes:**
- The revamped version of the CGTMSE Scheme has been provided with an additional corpus support of **₹9,000 crore in the Union Budget for FY 2023-24** to provide a guarantee for an additional ₹2 lakh crore to MSEs.

- Other major changes made in the revamped version include:
  - **Reduction in guaranteed fees** for loans up to ₹1 crore by 50%.
  - **Raising of ceiling** for guarantee from ₹2 crore to ₹5 crore.
  - **Raising the bar for claim settlement** without taking legal action from the **previous limit of Rs. 5 lakhs to Rs. 10 lakhs**.

➢ **Significance:**
- The reduced guaranteed fees will **make it easier for MSEs to avail loans.**
- The increased ceiling for **guarantee and threshold limit for claim settlement will provide better protection to lenders** in case of any default by the borrower.
- The scheme is expected to **boost credit flow to MSEs,** thus creating more employment opportunities in the country.
- These changes have been made to improve the **accessibility, affordability and availability of credit to MSEs**, especially in the wake of the **COVID-19 pandemic** and its impact on their businesses.

What are the Other Initiatives Related to MSME Credit?

➢ **Prime Minister's Employment Generation programme (PMEGP):** It is a credit linked subsidy scheme, for setting up of new micro-enterprises and to generate employment opportunities in rural as well as urban areas of the country.

➢ **Scheme of Fund for Regeneration of Traditional Industries (SFURTI):** It aims to properly organize the artisans and the traditional industries into clusters and thus provide financial assistance to make them competitive in today's market scenario.

➢ **Interest Subvention Scheme for Incremental Credit to MSMEs:** It was introduced by the **RBI** wherein relief is provided upto 2% of interest to all the legal MSMEs on their outstanding fresh/incremental term loan/working capital during the period of its validity.

➢ **Interest Subsidy Eligibility Certificate (ISEC):** Under the scheme, Khadi and Polyvastra producing institutions in mobilizing the capital funds from banking institutions.

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FIR Provisions in Cognizable Offences

Why in News?

Recently, the **Supreme Court** has issued a notice to Delhi Police on a petition filed by wrestlers seeking an **FIR** against the President of Wrestling Federation of India (WFI), on allegations of **sexual harassment.**

➢ The **Solicitor General** submitted to the court that the Delhi Police feels there is a need to conduct a 'preliminary inquiry' before registering the FIR.

➢ **Sections pertaining to sexual harassment and sexual assault of the Indian Penal Code (IPC)** fall within the category of cognizable offences.

➢ Since the complainants include a minor, the **FIR provisions under Protection of Children from Sexual Offences (POCSO) Act 2012** are applicable.

What is a FIR?

➢ **About:**
  ○ **First Information Report (FIR) is a written document** prepared by the police when they receive information about the commission of a **cognizable offence**.
    ● The registration of an FIR is the first step towards the probe.
    ● It sets into motion the investigation and the police may:
      ■ Seek custodial interrogation of the accused,
      ■ File a chargesheet based on the evidence, or
        ◆ File a closure report if the probe reveals no merit in the allegations made in the FIR.

➢ **Registration of FIR in Cognizable Offences:**
  ○ **Section 154 (1**), **CrPC** enables the police to register an FIR after information is received about a **cognizable offence**.
    ● A **cognizable offence/case** is one in which a police officer may **make an arrest without a warrant.**
  ○ The law also has provision for the registration of a **'Zero FIR'.**
    ● Where even if the alleged offence has not been committed within the jurisdiction of the police station approached, the police can file an FIR and transfer it to the police station concerned.

➢ **Failure to Register an FIR:**
  ○ Based on **Justice JS Verma committee's** (2013) recommendation, section 166A was inserted to **IPC.**
  ○ The section states that if a public servant knowingly disobeys any direction of law including **failing to record any information given to him in relation to a cognizable offence, he can be punished** with imprisonment for a term of up to two years and fined.

What are the FIR Provisions under POCSO Act 2012?

➢ **Section 19** of the Act states that any person who has an apprehension that an offence under POCSO Act has been committed shall provide such information to the Special Juvenile Police Unit or the local police.
  ○ The section also requires the registration of an FIR in writing.

➢ **Section 21** of the Act even states that not reporting or recording an offense can result in up to six months of imprisonment, a fine, or both.
  ○ **The Act, therefore, also makes it mandatory** for a report to be filed on receiving a complaint, including from a child.

Can a Preliminary Inquiry be Conducted Before Registration of an FIR?

➢ Supreme Court in *Lalita Kumari vs Govt of UP and ors* **(2013)** case said that registration of an **FIR under section 154 CrPC is mandatory** if information of a cognizable offence is received.

➢ Other considerations are not relevant at the stage of registration of FIR, such as, whether the information is falsely given, whether the information is genuine, whether the information is credible etc.

➢ It also said, "The scope of preliminary inquiry is not to verify the veracity or otherwise of the information received but only to ascertain whether the information reveals any cognizable offence."

➢ It gave an illustrative list of categories of cases where such an inquiry can be made, including family disputes, commercial offences, medical negligence and corruption cases or cases where there is an abnormal delay in reporting the matter.

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➢ The court said that the inquiry should not exceed seven days.

What are the Remedies if Police Refuse to File an FIR?

➢ **Section 154 (3), CrPC** says that a person who has been aggrieved after a police in-charge refused to file an FIR can send the information to the Superintendent of Police.

➢ **Section 156, CrPC** says if a person is aggrieved by the police's refusal to file an FIR, a complaint can be made before a magistrate. The magistrate can then order registration of a case at the police station.

➢ **SC's View:** The supreme court has said that the complaint before the magistrate would be treated as an FIR and the police can initiate its investigation.
  ○ This also permits the police to investigate a criminal offence **without any formal FIR**.

Regulating Virtual Digital Asset

Why in News?

Recently, the Ministry of Finance has extended the **Anti-money Laundering provisions** to **Virtual Digital Assets (VDA)** businesses and service providers.

➢ The Ministry has extended the scope of **Prevention of Money Laundering Act (PMLA) Act of 2002 by adding the** activities related to VDA and Crypto currency under the Act.

How will be VDAs covered under PMLA 2002?

➢ **Extended Activities:**
  ○ Exchange between VDA and **Fiat Currencies** (Legal Tender by the Central Government).
  ○ Exchange between one or more forms of VDAs
  ○ Transfer of VDAs
  ○ Safekeeping or administration of VDAs or instruments enabling control over VDAs
  ○ Participation in and provision of financial services related to an issuer's offer and sale of a VDA

➢ Now the VDA will have to register as a reporting entity with the **Financial Intelligence Unit-India (FIU-IND).**
  ○ The FIU-IND performs the same functions as FinCEN in the USA. Under the Finance Ministry, this was set up in 2004 as the nodal agency for receiving, **analyzing and disseminating information relating to suspect financial transactions.**
  ○ For instance, Reporting entity platforms such as CoinSwitch are now mandated to know your customer, record and monitor all transactions, and report to the FIU-IND as and when any **suspicious activity is detected.**

➢ **In Line with Global Guidelines:** This risk-mitigation measures is in line with global guidelines put forward by the **International Monetary Fund (IMF)** and the **Financial Action Task Force (FATF).**
  ○ FATF has a comprehensive definition of Virtual Asset Service Providers (VASPs), an extensive list covering intermediaries, brokers, exchanges, custodians, hedge funds, and even mining pools.
  ○ Such guidelines acknowledge the role VASPs play in regulating and monitoring the virtual digital assets ecosystem.

What is the Significance of the Move and What are the Concerns?

➢ **Significance:**
  ○ Such rules are already applicable to banks, financial institutions and certain intermediaries in the securities and real estate markets.
  ○ Extending them to virtual digital assets provides virtual digital assets platforms with a **framework to diligently monitor and take actions against malpractices.**
  ○ A standardization of such norms will go a **long way in making the Indian virtual digital assets sector transparent.**
  ○ It will also build confidence and assurance in the ecosystem and give the government more oversight on virtual digital asset transactions, which will be a win-win for all.

➢ **Concerns:**
  ○ There is a concern that without a central regulator, **VDA entities could end up dealing directly with enforcement agencies, like ED (Enforcement Director).**
  ○ Owing to current tax regime, many Indian VDA users have already switched from **domestic exchanges to foreign counterparts**, causing a decrease in tax revenues and transaction traceability. This could

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also discourage **international investors and result** in capital outflow.

What are Virtual Digital Assets?

➢ The government in the **Union Budget for 2022-23** introduced **new provisions aimed at taxing and tracking Virtual Digital Assets.** Along with the framework for taxation, the Budget for the first time defined virtual digital assets.

➢ It has defined virtual digital assets in the **newly inserted clause (47A) under Section 2 of the Income Tax Act, 1961.**

➢ VDA has been defined to mean any information or code or number or token (not being Indian currency or any foreign currency), generated through cryptographic means, with the promise or representation of having inherent value.

➢ VDAs mean cryptocurrencies, DeFi (decentralised finance) and **non-fungible tokens (NFTs).**

➢ From April 2022, India introduced a **30% income tax on gains made from cryptocurrencies.**

➢ In July 2022, rules regarding 1% tax deducted at source on cryptocurrency came into effect.

Information Technology Amendment Rules, 2023

Why in News?

Recently, the Bombay High Court has said the **IT (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2023** does not seem to offer protection to fair criticism of the government through parody or satire.

➢ The IT Rules derives the authority from the **Information Technology Act, 2000**, which gives legal recognition to electronic commerce in India.

What are Information Technology Amendment Rules, 2023?

➢ **Obligatory for Intermediaries:**
- No platform can allow **harmful unapproved online games** and their advertisements.
- They should not share false information about the Indian government, **as confirmed by a fact-checking unit.**

- An online intermediary – including social media platforms like Facebook, YouTube and Twitter and internet service providers like Airtel, Jio and Vodafone Idea – should make "reasonable efforts" to not host content related to the Central Government that is "identified as fake or misleading" by a "fact check unit" that may be notified by the IT Ministry.

➢ **Self-Regulatory Bodies:**
- Platforms providing online gaming will have to register with a Self-Regulatory Body (SRB) that will determine whether or not **the game is "permissible."**
- The platform should ensure **that online games do not involve any gambling or betting elements.** They should also comply with legal requirements, standards, and safety precautions such as parental controls.

➢ **Losing Safe Harbour:**
- If any piece of information is marked as fake by the upcoming fact check unit, intermediaries will be required to take it down, failing which they would risk losing their safe harbour, which protects them from litigation against third-party content.

What are the Key IT Rules, 2021?

➢ **Mandates social media to Exercise Greater Diligence:**
- Broadly, the IT Rules (2021) mandate social media platforms to **exercise greater diligence with respect to the content on their platforms.**

➢ **Ensuring Online Safety and Dignity of Users:**
- Intermediaries **shall remove or disable access within 24 hours** of receipt of complaints of contents that exposes the private areas of individuals, show such individuals in full or partial nudity or in sexual act or is in the nature of impersonation including morphed images etc.

➢ **Educating Users about the Privacy Policies:**
- The **privacy policies of the social media platforms must ensure** that users are educated about not circulating copyrighted material and anything that can be construed as defamatory, racially or ethnically objectionable, paedophilic, threatening the unity, integrity, defence, security or sovereignty of India or friendly relations with foreign states, or violative of any contemporary law.

Note:

- Social media sites will have to take down such posts, and internet service providers will have to block URLs of such content.

What are the Concerns?

➢ **No Clear Definition:**
- ○ The amendment fails to define **fake news** and allows the government's fact-check unit to declare the veracity of any news "in respect of any business" that involves the state.
- ○ The use of undefined words, especially the phrase "any business", gives the government unchecked power to decide what people can see, hear, and read on the internet.

➢ **No clarity for Fake News:**
- ○ The IT Rules, 2023 don't **specify what qualifies as false or misleading information** or the qualifications and procedures for the fact-check unit.
- ○ This has raised concerns about the government's arbitrary power to determine what qualifies as fake news, as the rules do not provide a clear definition of the term.

➢ **Removable of Information:**
- ○ Intermediaries will remove information deemed false by the Fact Check Unit, leaving **only the state to determine what is true.**
- ○ The new regulation gives the government the power to decide what information is bogus and exercise censorship by compelling intermediaries to take down posts deemed fake or false.

➢ **Violates the Supreme Court's Judgment:**
- ○ **Shreya Singhal vs Union of India (2015), Supreme Court** held that a law that limits speech can neither be vague nor over-broad.

Inter-State Water Dispute

Why in News?

Odisha has complained to the Ministry **of Jal Shakti under the Inter-State River Water Disputes (ISRWD) Act 1956** accusing Chhattisgarh of misleading the **Mahanadi Water Disputes Tribunal (MWDT)** by releasing water in **Mahanadi river** in the Non-Monsoon Season.

➢ The MWDT was formed in March 2018. The tribunal has been asked to submit its report by December 2025 by the Ministry of Jal Shakti.

➢ There is **no inter-state agreement between Odisha and Chhattisgarh** regarding Mahanadi basin water allocation.

What is the Concern of Odisha?

➢ Chhattisgarh has opened 20 gates at **Kalma Barrage** through which 1,000-1,500 cusecs of water is flowing into Mahanadi's low catchment area during the non-monsoon season.

➢ **Chhattisgarh's reluctance to release water during non-monsoon seasons** has often resulted in the non-availability of water in the lower catchment of Mahanadi.
- ○ **This also affects the Rabi crops and aggravates the drinking problem in Odisha.**

➢ However, this time Chhattisgarh has released water without any intimation, which raised concerns over its management of **Mahanadi River water.**
- ○ The state faced flood in upper catchment during monsoon and thus, opened gates without any intimation to Odisha.

What are the Inter-State River Disputes in India?

➢ **About:**
- ○ The Inter-State River Water Disputes are **one of the most contentious issues** in Indian federalism today.
  - • The recent cases of the **Krishna Water Dispute**, **Cauvery Water Dispute** and the Satluj Yamuna Link Canal are some examples.
- ○ Various **Inter-State Water Disputes Tribunals have been constituted so far, but they had their own problems.**

➢ **Constitutional Provisions:**
- ○ **Entry 17 of the State List** deals with water i.e., water supply, irrigation, canal, drainage, embankments, water storage and hydro power.
- ○ **Entry 56 of the Union List empowers the Union Government** for the **regulation and development of inter-state rivers and river valleys** to the extent declared by Parliament to be expedient in the public interest.
- ○ **According to Article 262**, in case of disputes relating to waters:
- ○ **Parliament may by law provide for the adjudication** of any dispute or complaint with respect to the

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use, distribution or control of the waters of, or in, any inter-State River or river valley.

○ Parliament may, by law, provide **that neither the Supreme Court nor any other court shall exercise jurisdiction** in respect of any such dispute or complaint as mentioned above.

What is the Mechanism for Inter-State River Water Disputes Resolution?

➢ **As per Article 262,** the Parliament has enacted the following:

○ **River Board Act, 1956:** This empowered the GoI to **establish Boards for Interstate Rivers and river valleys** in consultation with State Governments. To date, **no river board has been created.**

○ **Inter-State Water Dispute Act, 1956:** In case, if a particular state or states approach the Centre **for the constitution of the tribunal,** the Central Government should try to resolve the matter by consultation among the aggrieved states. In case, **if it does not work, then it may constitute the tribunal.**

○ **Note:** Supreme Court shall not question the Award or formula given by tribunal, but it can question the working of the tribunal.

➢ The **Inter-State Water Dispute Act, 1956** was amended in 2002, to include the major **recommendations of the Sarkaria Commission.**

○ The amendments mandated a **one-year time frame to set up the water disputes tribunal** and also a **3-year time frame to give a decision.**

Tribunal	Year of Formation	States Involved	Current Status	Awards
Krishna Water Disputes Tribunal II	2004	Andhra Pradesh, Maharashtra, Telangana & Karnataka	Tribunal Term extended	Award given 2013. Some matters subjudice
Mahanadi Water Disputes Tribunal	2018	Chhattisgarh & Odisha	Tribunal Exists	Matter under adjudication
Mahadayi Water Disputes Tribunal	2010	Karnataka, Goa & Maharashtra	Tribunal Exists	Award given 2018. Some matters pending
Ravi & Beas Water Tribunal	1986	Rajasthan, Haryana & Punjab	Tribunal term extended	Matter subjudice
Vansadhara Water Disputes Tribunal	2010	Odisha & Andhra Pradesh	Tribunal dissolved 2022	Yet to be published

What are the Issues with Interstate Water Dispute Tribunals?

➢ **Protracted proceedings and extreme delays** in dispute resolution. Water disputes such as the **Godavari and Cauvery disputes in India have faced long delays in resolution.**

➢ **Opacity** in the institutional **framework and guidelines** that define these proceedings; and ensuring compliance.

➢ The **composition of the tribunal is not multidisciplinary,** and it consists of persons only from the judiciary.

➢ The **absence of water data that is acceptable to all parties** currently makes it difficult to even set up a baseline for adjudication.

➢ The **growing nexus between water and politics** has **transformed the disputes into turfs of vote bank politics.**

○ This politicisation has led to increasing defiance by states, extended litigations and subversion of resolution mechanisms.

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What Measures can be taken to Resolve Water Disputes?

➢ Bring **Inter-state water disputes under interstate council** constructed by the president under **article 263 and need for consensus-based decision making**.

➢ **States must be motivated for water use efficiency** in every domain and **water harvesting and water recharging to reduce the demand** on river water and in situ water source.

➢ **Need of a single water management agency for both ground and surface water** on scientific basis and also for technical advice on union, river basin, state and district level for water conservation and water management.

➢ **Tribunals must be fast track,** technical and also have a verdict enforceable mechanism in a time bound manner.

➢ A **central repository of water data** is necessary for informed decision making. It is important for the **central government to take a more active role in resolving inter-state water disputes.**

Insurance Claims under PMJDY

Why in News?

In the last two financial years, only 329 claims for accident insurance cover provided to bank account holders under the **Pradhan Mantri Jan-Dhan Yojana (PMJDY)** have been settled out of the 647 claims that were filed.

➢ In FY 2021-22, 341 claims were received, of which **182 were settled and 48 rejected** and 306 claims were received in FY 22-23, of which **147 were settled and 10 rejected but no information about the remaining 149 claims.**

What is Pradhan Mantri Jan Dhan Yojana (PMJDY)?

➢ **About:**

○ **PMJDY** - **National Mission for Financial Inclusion,** aims to ensure access to **financial services,** namely, **basic savings & deposit accounts, remittance, credit, insurance, pension** in an affordable manner.

○ Under the scheme, a **Basic Savings Bank Deposit (BSBD)** account can be opened in any bank branch or **Business Correspondent (Bank Mitra)** outlet, by persons not having any other account.

➢ **Objective:**

○ Ensure access to various financial services like availability of basic savings bank account, access to need based credit, remittances facility, insurance and pension to the excluded sections i.e., weaker sections & low-income groups.

○ Envisages channeling all Government benefits (from Centre / State / Local Body) to the beneficiaries' accounts and pushing the **Direct Benefits Transfer (DBT) scheme** of the Union Government.

○ Mobile transactions through telecom operators and their established centers as Cash Out Points are also planned to be used for Financial Inclusion under the Scheme.

➢ **Benefits under PMJDY:**

○ There is no requirement to **maintain any minimum balance** in **PMJDY accounts** and interest is earned on the deposit in **PMJDY accounts.**

● **Rupay Debit card** is provided to the **PMJDY account holder.**

○ An **overdraft (OD) facility** up to **Rs. 10,000** to eligible account holders is available.

➢ **Scope of PMJDY:**

○ **PMJDY accounts** are eligible for **Direct Benefit Transfer (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), Micro Units Development & Refinance Agency Bank (MUDRA) scheme.**

➢ **Insurance Facility under PMJDY:**

○ It provides insurance cover to its account holders.

● **Life Insurance Cover:** PMJDY account holders are eligible for **a life insurance cover of Rs. 2 lakhs** which is provided under the **Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY).**

● **Accidental Insurance Cover:** PMJDY account holders are also eligible for an **accidental insurance cover of Rs. 2 lakh** which is provided under the **Pradhan Mantri Suraksha Bima Yojana (PMSBY).**

■ Both the **PMJJBY** and **PMSBY** insurance covers are provided at a **nominal premium of Rs. 330 per annum** and **Rs. 12 per annum,** respectively.

Note:

◆ The premium for these insurance covers is automatically debited from the **PMJDY** account holder's account on an annual basis.

◆ The accident insurance cover for death or permanent disability is extended to all **PMJDY account holders**, out of which more than **50%** are women. **No premium is charged from account holders.**

➢ **Condition:**

❍ The **key condition to avail the accident insurance** is that the beneficiary must have **performed at least one successful transaction** (financial or non-financial) **using the card in the 90 days prior** to date of accident. **This condition, however, makes filing claims difficult.**

➢ **Challenges to PMJDY:**

❍ **Lack of Awareness:** Despite various awareness campaigns by the government, many people in rural areas are not aware of the benefits of PMJDY. This leads to a **lack of participation and limits the impact of the program.**

❍ **Limited Infrastructure:** Many remote areas **lack adequate banking infrastructure, including ATMs and bank branches,** making it difficult for people to access financial services.

❍ **Limited Resources:** Many people who are eligible for PMJDY **lack the necessary documents, such as ID proof, address proof, and income proof,** to open bank accounts. This limits the reach of the program and reduces its effectiveness.

❍ **Dependence on Cash Transactions:** In many parts of the country, **people still rely on cash transactions for their daily needs.** This **limits the uptake of digital payments** and reduces the effectiveness of PMJDY in promoting financial inclusion.

> *Other Initiatives to Increase Financial Inclusion in India*
>
> ➢ **Digital Identity (Aadhaar)**
> ➢ **National Centre for Financial Education (NCFE)**
> ➢ **Centre for Financial Literacy (CFL) Project**
> ➢ **Expansion of financial services in Rural and Semi-Urban Areas**
> ➢ **Promotion of Digital Payments**

Sports Governance and Issues

Why in News?

Recently, the **Supreme Court (SC)** has decided to examine the sexual harassment allegations against **Wrestling Federation of India's (WFI) President by women wrestlers**, raising concerns over **Sports Governance in India.**

What is the SC's Observation?

➢ The court has decided to examine the petition filed by the wrestlers regarding the non-registration of **First Information Report (FIR)** and has listed the case for hearing further.

❍ The court pointed out that the petitioners have a remedy under **Section 156 of the Code of Criminal Procedure** under which a Magistrate could order an investigation.

● The court observed that, there are serious allegations contained in the petition at the behest of wrestlers **who have represented India** with regard to sexual harassment, adding that the SC is conscious of its duty to protect **fundamental rights** under the Constitution's **Article 32**, which allows **individuals to move to the top court to seek justice.**

What is the Current Model of Sports Governance in India?

➢ The existing model of governance of sports in India has two wings:

❍ One - controlled by **Ministry of Youth Affairs and Sports (MYAS)** and has institutions like the Sports Authority of India (SAI) and other institutions working towards promoting sports training under SAI.

❍ Other - headed by the **Indian Olympic Association (IOA)** having under it, State Olympic Associations (SOAs) and national and state Sports Federations (NSFs and SFs).

➢ **MYAS provides financial and infrastructural support** to the NSF and SFs and indirectly controls these federations through political representations.

❍ IOA is the umbrella body under which the **NSF, SFs and SOAs conduct various sporting events in the country**

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- *A broad level graphical representation of the arrangements amongst them is as follows:*
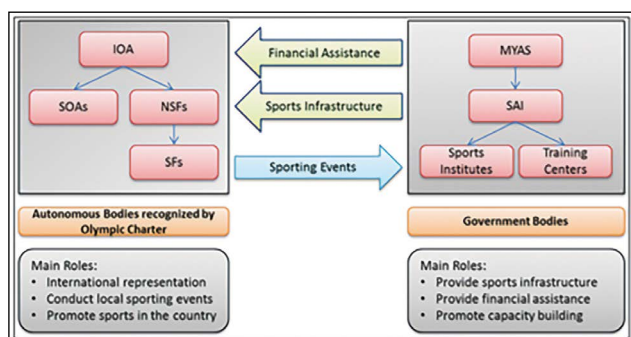
What Rules and Regulations are there for Good Governance in Sports?

➤ **Sports Code 2011:**

○ The Code was notified by the Ministry of Youth Affairs and Sports in 2011, with an aim of bringing together **all notifications and instructions pertaining to good governance** of National Sports Federations.

○ It is a set of regulations, which enunciate the **'basic universal principles of good governance, ethics and fair play.'**

○ It seeks to put restrictions **on the age and tenure of the office-bearers of federations** apart from envisaging transparent functioning along with free and fair elections.

- The Code says that the **Non-compliance with the regime of the law is against public interest.**

➤ **Draft National Code for Good Governance:**

○ The draft **National Code for Good Governance in Sports 2017** is a proposed set of guidelines for the **management and administration of sports bodies in India.**

○ It includes **measures such as age and tenure restrictions** for office-bearers, the **presence of independent directors** on the governing board, t**ransparent and fair elections**, and other measures aimed at improving transparency and **accountability in sports bodies.**

What are the Issues Related to Sports Governance in India?

➤ **Unclear Rights and Responsibility:**

○ In Indian sports, **management and governance are often not clearly** separated. The executive committee, which is supposed to focus on governance, **ends up doing management work.**

○ This creates a **lack of checks and balances,** as they are allowed to operate without oversight or accountability.

➤ **Lack of Transparency and Accountability:**

○ The current sports model **lacks accountability due to unlimited powers and a lack of transparency** in decision-making. There are also issues with irregular revenue management.

- For instance, in July 2010, the **Central Vigilance Commission** released a report which showed that there were irregularities in 14 projects of the Commonwealth Games held in India.

- The 2013 Indian Premier League spot-fixing and betting case arose when the **Delhi Police arrested three cricketers**, on the charges of alleged spot-fixing.

➤ **Non-Professionalisation:**

○ Indian sport organizations, especially governing bodies, have not adapted to the challenges of a professional and commercialized sector. They still **rely on volunteers instead of hiring skilled professionals** to handle the increased workload.

➤ **Lack of Sufficient Infrastructure:**

○ Status of sports infrastructure in India is yet to reach the desired level. This creates an obstacle in developing a culture of sports in the country.

○ According to the Constitution of India, sport is a **State subject** consequently there is no comprehensive approach for the development of sports infrastructure uniformly throughout the country.

➤ **Issues Related to Sexual Harassment:**

○ There have been several high-profile cases where athletes have accused **coaches and officials of sexual harassment** and abuse.

- However, the response from sports **organizations has been slow and inadequate.**

○ One of the **key issues is the lack of a proper mechanism to address** sexual harassment complaints.

- Many sports organizations do not have a formal policy in place for dealing with such complaints, and there is often no clear chain of command for reporting incidents.

How can the Issues Related to Sports Governance be Addressed?

➤ **Empowering Athletes:**
  ○ Athletes are the **primary stakeholders in sports**, and their involvement in decision-making can **bring much-needed accountability and transparency** to sports organizations.
  ○ To empower athletes in sports administration, there must be mechanisms in place to ensure their representation at all levels of sports governance.
    ● The **Olympic Charter also has a provision for the election of athlete representatives as members** of countries' National Olympic Committee (India – IOA) and their boards.

➤ **Autonomy of Sports Federations:**
  ○ The autonomy of sports federations is crucial in addressing the challenges related to sports governance.
  ○ It enables sports **organizations to act independently through their own democratic** structures, free from governmental and external influence, which can reduce the likelihood of corruption and nepotism.

➤ **Bottom-Up Reforms:**
  ○ Reforms should start from the bottom of the pyramid, which means reconstituting **district and state bodies that feed into national sports governance**.
  ○ This approach ensures that accountability and transparency are built into the sports governance structure at all levels, starting from the grassroots.

➤ **Creating Sports Awareness:**
  ○ Incorporating sports into children's daily lives can improve their confidence, self-image, and even lead to a career in sports.
  ○ To build a strong sporting culture in the country, the change needs to start at the primary education level. The **education system should give equal importance to sports as a part of a child's holistic** upbringing.

➤ **Greater Representation of Women:**
  ○ Encouraging greater representation of women in sports governance positions can help **ensure that their voices are heard and that their rights** are protected. This can be achieved through several measures, such as:

● Creating gender-sensitive policies
● Providing equal opportunities for women to access leadership positions in sports governance.
● Encouraging women to pursue careers in sports
● Promoting a culture of inclusivity and diversity
● Establishing gender quotas
● Creating safe and supportive environments for women

VVPAT Machines

Why in News?

The **Election Commission of India** was criticized for not being transparent and keeping political parties out of the loop regarding defects in the **Voter Verified Paper Audit Trail (VVPAT) machines.**

What is the Criticism against the Election Commission (EC)?

➤ The EC has not informed political parties about the identification of **6.5 lakh VVPAT machines as defective.**
  ○ The number of machines in which defects have been found is more than **1/3rd (37%) the number used in the 2019 Lok Sabha election** and could have **affected voters in the last general election and subsequent Assembly poll.**
  ○ Thousands of VVPATs with consecutive serial numbers in entire batches from different manufacturers have been found defective.
  ○ The defects are serious enough that the machines have been returned to the manufacturers.

➤ The **EC did not follow standard operating procedures** (**Model Code of Conduct**) that the panel had framed for itself, which requires **field officers to identify defects, and any faults to be identified within 7 days.**
  ○ **EC needs to restore public faith and trust in the electoral process by being transparent.**

What are VVPAT Machines?

➤ **About:**
  ○ VVPAT is an independent **verification printer machine attached to electronic voting machines (EVMs)** that allows voters to verify that their **votes have been recorded accurately.**

Note:

drishti

- As soon as the voter presses the button on the EVM, the VVPAT machine prints the slip that contains the name and symbol of the party they have voted for, for around 7 seconds.
  ○ VVPAT Machines were **first introduced in India in the 2014** Lok Sabha elections and were introduced to **increase transparency and eliminate doubts** about the accuracy of the **EVMs.**
    - VVPAT machines **can be accessed by polling officers only.**
  ○ According to ECI, **EVMs and VVPATs are separate entities** and are not connected to any network.

- ➢ **Challenges:**
  ○ **Technical Malfunctions:**
    - One of the primary concerns with VVPAT machines is the possibility of technical malfunctions. The machines are supposed to print a paper receipt of the vote cast by the voter, which is then deposited in a box.
    - However, there have been instances of the machines malfunctioning, **resulting in inaccurate printing or no printing at all.**
  ○ **Verification of Paper Trails:**
    - Another challenge is the verification of the paper trails generated by the VVPAT machines.
      ■ While the machines are meant to provide a **physical record of the vote cast, it is not always clear how this record can be verified,** especially in cases where there is a discrepancy between the electronic and paper records.

- ○ **Voter Confidence:**
  - The recent reports of defective VVPAT machines have further eroded the **public's confidence in the electoral process.**
  - The lack of transparency and accountability on the part of the EC has led to questions about the **fairness and accuracy of the elections.**
  - The SC in **Dr. Subramanian Swamy v ECI (2013)** held that VVPAT is an "indispensable requirement of **free and fair elections**".

National Security Act 1980

Why in News?

Recently, the **Supreme Court** heard a plea by an accused for clubbing the FIRs against him in **Bihar** with those in **Tamil Nadu.**

➢ The accused was allegedly spreading fake news about laborer from Bihar getting attacked in **Tamil Nadu,** under the stringent **National Security Act (NSA), 1980.**

What is the National Security Act, 1980?

➢ **About:**
  ○ The **NSA** is a **preventive detention law** enacted in **1980** to maintain **public order** and **national security.**
  ○ **Preventive Detention** involves the **detainment (containment) of a person** in order to keep him/her from committing future crimes and/or from escaping future prosecution.
    - **Article 22 (3) (b)** of the Constitution allows for **preventive detention** and restriction on **personal liberty** for reasons of state security and public order.
    - **Article 22(4)** states that no law providing for preventive detention shall authorize the detention of a person for a longer period than three months.
➢ **Powers to the Government:**
  ○ The **NSA** empowers the **Centre or a State government** to detain a person to prevent him from acting in any manner prejudicial to national security.
  ○ The government can also **detain a person** to prevent him from **disrupting public order or for maintenance of supplies and services essential to the community.**

Note:

➢ **Period of Confinement:**
  ○ The maximum period for which one may be detained is **12 months.**
➢ **Establishment of National Security Council:**
  ○ The act also provides for the constitution of a **National Security Council,** which advises the **Prime Minister** on matters relating to national security.

What is the National Security Council (NSC)?

➢ **About:**
  ○ The NSC in India is a high-level body that advises the Prime Minister of India on matters related to national security, strategic policy, and defense.
    ● It is a **three-tiered organization** that oversees **political, economic, energy** and **security issues** of strategic concern.
      ■ The **NSC** is chaired by the **Prime Minister.**
      ■ It was formed in **1998,** where all aspects of **national security** are deliberated upon.
➢ **Members:**
  ○ **National Security Advisor (NSA)**
  ○ **Chief of Defence Staff (CDS)**
  ○ Deputy National Security Advisors
  ○ Ministers of Defence
  ○ Ministers of External Affairs
  ○ Ministers of Home Affairs
  ○ Minister of Finance
  ○ Vice Chairman of the **NITI Aayog**
➢ **Functions:**
  ○ NSC advises the PM on issues of national security, strategic policy, and defense, **providing strategic direction to the country's security and defense policies** and ensuring their implementation.
    ● **It also conducts regular reviews** of the country's security situation and makes recommendations to the PM on policy changes, if needed.
  ○ **It coordinates the activities of various agencies** involved in the country's security, including the armed forces, intelligence agencies, and law enforcement agencies.
  ○ **It analyses emerging security threats** and provides early warning to the govt and **preparing contingency plans** for various security scenarios.

What is the Criticism of the National Security Act?

➢ **Misuse of Power:** One of the major challenges of the NSA is its potential misuse by the authorities. The **law grants the government the power to detain individuals without trial for up to a year.**
  ○ This power can be easily misused by the authorities to suppress dissent or target political opponents.
➢ **Violation of Human Rights:** The NSA, if misused, can lead to a **violation of human rights.**
  ○ The law provides for preventive detention without trial, which can be seen as a **violation of the right to a fair trial,** the **right to freedom of expression,** and the **right to personal liberty.**
➢ **Lack of Transparency:** Another challenge with the NSA is the **lack of transparency in the detention process.**
  ○ Detainees are often **not informed of the grounds for their detention,** and the detention orders are not made public. This lack of transparency can lead to abuse of power by the authorities.
➢ **Legal Challenges:** Critics have argued that the law is **unconstitutional and violates fundamental rights guaranteed** under the Indian Constitution.
  ○ The Supreme Court of India has also struck down several detention orders issued under the NSA.
➢ **Limited effectiveness:** While the NSA is intended to prevent threats to national security, its effectiveness is limited.
  ○ **Detaining individuals without trial may not necessarily prevent the threat,** and in some cases, it **may even exacerbate the problem by radicalizing individuals.**

Governor's Power over State Bills

Why in News?

Recently, the **Supreme Court (SC)** have observed that bills sent to the governor for assent must be returned **"as soon as possible"** and not sit over them, causing **Gubernatorial Procrastination** and making state **Legislative Assemblies** wait **indefinitely.**

➢ The SC observed as a part of judicial order in a petition filed by the State of Telangana complaining that the Governor has kept **pending several important Bills sent.**

What are the Governor's Powers over State Bills?

➢ **Article 200:**
  ○ Article 200 of the Indian Constitution outlines the process for a Bill passed by the Legislative Assembly of a State to be presented to the Governor for assent, who may either **assent, withhold assent or reserve the Bill for consideration** by the President.
  ○ The Governor may also return the Bill with a message **requesting reconsideration by the House** or Houses.

➢ **Article 201:**
  ○ It states that when a **Bill is reserved for the consideration** of the President, the President may assent to or withhold assent from the Bill.
  ○ The President may also **direct the Governor to return the Bill to the House** or Houses of the Legislature of the State for reconsideration.

➢ **Options Available with the Governor:**
  ○ He may give assent, or he can send it back to the Assembly requesting it to r**econsider some provisions of the Bill, or the Bill itself.**
  ○ He may reserve the bill for the consideration of the president. The reservation is obligatory where the bill passed by the state legislature endangers the position of the state high court. However, the governor can also reserve the bill if it is of the following nature:
    ● Against the provisions of the Constitution
    ● Opposed to the DPSP
    ● Against the larger interest of the country
    ● Of grave national importance
    ● Deals with compulsory acquisition of property under Article 31A of the Constitution.
  ○ Another option is to withhold the assent, but this is not normally done by any Governor because it would be an extremely unpopular action.

What is the SC's Observation?

➢ While referring to the first proviso to **Article 200 of the Constitution**, the SC mandated that Governors should not **delay over Bills sent to them for assent** after they had been passed by Legislative Assemblies.

➢ They should be returned **"as soon as possible"** and not sit over them. The expression "as soon as possible" in this article has significant constitutional intent and that constitutional authorities should keep this in mind.

What are Recent Instances of Gubernatorial Procrastination?

➢ Also **Tamil Nadu Assembly passed a resolution** urging the **President** of India, among other things, to fix a **timeline for assent to be given to Bills** passed by the Assembly.
  ○ For instance, in the TN Governor forwarded the **Bill for exemption from the National Eligibility cum Entrance Test (NEET)** to the President after considerable delay.

➢ In Kerala, the situation has become a bit curious with the Governor publicly announcing that he **would not give assent to the Lokayukta Amendment Bill** and the Kerala University Amendment Bill.

What are the Legal Arguments against Delaying Assent?

➢ **States' Constitutional Obligation:**
  ○ The Governor's inaction on bills passed by the Assembly creates a situation where the **state government is unable to function in accordance with the Constitution.**
  ○ If the Governor continues to fail to act in accordance with the Constitution, the State government has a **constitutional obligation to invoke Article 355** and notify the President, requesting that appropriate instructions be issued to the Governor to ensure that the process of government is conducted in accordance with the Constitution.

➢ **SC Ruling:**
  ○ Under **Article 361** of the Constitution, the **Governor has complete immunity from court proceedings** for any act done in the exercise of their powers.
    ● This provision **poses a unique situation when a government may need to challenge a Governor's action** of withholding assent to a Bill.
    ● Hence, the Governor, while declaring that s/he **withholds assent to a bill,** will have to disclose the reason for such refusal; being a high constitutional authority, s/he **cannot act in an arbitrary manner.**

Note:

○ If the grounds for refusal disclose mala fide or extraneous considerations or ultra vires, the Governor's **action of refusal could be struck down as unconstitutional.**

- This point has been settled by a constitution bench of the Supreme Court in *Rameshwar Prasad and Ors. vs Union Of India and Anr*.
- The Court held: **"the immunity granted by Article 361(1) does not, however, take away the power of the Court to examine the validity of the action including on the ground of malafides".**

What are the Practices Overseas?

➢ **United Kingdom:**
- ○ The practice of requiring royal assent for a Bill to become law exists in the United Kingdom, but by practice and usage, there is **no power of veto exercised by the crown**, and refusal of royal assent on controversial grounds is considered unconstitutional.

➢ **United States:**
- ○ In the United States, the President can refuse assent to a Bill, but if the Houses pass **it again with two thirds of each House, the Bill becomes law.**

Note: The refusal of assent is not followed in other democratic countries, and in some cases, the Constitution provides a remedy so that a **Bill passed by the legislature can become law despite** the refusal of assent.

Logistics Performance Index 2023

Why in News?

India has climbed six places on the **World Bank's Logistic Performance Index (LPI) 2023,** now **ranking 38th in the 139 countries index.**

➢ This is a significant improvement from its **previous ranking of 44th in 2018 and 54th in 2014.**

➢ Earlier, the Ministry of Commerce and Industry released the **Logistics Ease Across Different States (LEADS) Report 2022.**

What is LPI?

➢ The LPI is an interactive benchmarking tool **developed by the World Bank Group.**
- ○ It helps countries identify the challenges and opportunities they face in their performance of trade logistics and what they can do to improve their performance.

➢ It measures the **ease of establishing reliable supply chain connections** and the structural factors that make it possible. The LPI considers 6 parameters to evaluate logistics performance, namely:
- ○ **Customs performance**
- ○ **Infrastructure quality**
- ○ **Ease of arranging shipments**
- ○ **Logistics services quality**
- ○ **Consignment tracking and tracing**
- ○ **Timeliness of shipments**

➢ The LPI was reported by the World Bank **every two years** from 2010 to 2018 with a **break in 2020 due to the COVID-19 pandemic** and a restructuring of the index methodology, eventually came out in 2023.
- ○ LPI 2023 allows for **comparison across 139 countries and for the first time, LPI 2023 measures the speed of trade** with indicators derived from big datasets tracking shipments.

What Aspects Led to India's Improved Logistics Performance?

➢ **Policy Interventions:**
- ○ **PM Gati Shakti Initiative:** In October 2021, government announced the PM Gati Shakti initiative, a **National Master Plan for multimodal connectivity.**
- ○ This initiative aims to reduce logistics costs and boost the economy by 2024-25.

➢ **National Logistics Policy (NLP):** The PM launched the **National Logistics Policy (NLP) in 2022** to ensure **quick last-mile delivery, end transport-related challenges, save time and money** for the manufacturing sector and ensure desired **speed in the logistics secto**r.
- ○ These policy interventions are fructifying, which can be seen in India's jump in LPI and its other parameters.

➢ **Infrastructure Improvements:**
- ○ According to the LPI report, **India's rank moved up five places in the infrastructure** score from **52nd in 2018 to 47th in 2023.**

○ The government has invested in trade-related soft and hard infrastructure, **connecting port gateways on both coasts** to the major economic centers located in the interior regions of the country.

- This investment has paid off, with India climbing to the **22nd spot for international shipments in 2023 from 44th in 2018.**

➤ **Technology's Role:**

○ Technology has been a critical component of India's logistics performance improvement efforts.

○ Under a public-private partnership, the **government has implemented a supply chain visibility platform,** which has contributed to remarkable reductions in delays.

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

○ The report also states that emerging economies like India are **leapfrogging advanced countries due to modernization and digitalization.**

➤ **Reduced Dwell Time:**

○ 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.

- **India's very low dwell time (2.6 days)** is one example of how the country has improved its logistics performance.

○ According to the report, the average dwell time for containers between May and October 2022 was **3 days for India and Singapore**, much better than in some of the industrialized countries.

- The dwell time for the **U.S. was 7 days and for Germany, it was 10 days.**

○ With the introduction of cargo tracking, **dwell time in the eastern port of Visakhapatnam fell from 32.4 days in 2015 to 5.3 days** in 2019.

What are India's Initiatives Related to Logistics?

➤ **Multimodal Transportation of Goods Act, 1993.**

➤ **Multi Modal Logistics Parks**

➤ **Dedicated Freight Corridor**

➤ **Sagarmala Projects**

➤ **Bharatmala Project**

UDAN 5.0 Scheme

Why in News?

Recently, the government has launched the fifth round of the Regional Connectivity Scheme – **UDAN** (UDAN 5.0).

What is UDAN (Ude Desh ka Aam Nagrik) Scheme?

➤ **About:**

○ The scheme was **launched by the Ministry of Civil Aviation** for regional airport development and regional connectivity enhancement.

○ It is **a part of the National Civil Aviation Policy 2016**.

○ The scheme is applicable for a **period of 10 years**.

➤ **Objectives:**

○ Improve the air connectivity to remote and regional areas of India.

○ Development of remote areas and enhancing trade and commerce and tourism expansion.

○ Enable common people to access air travel with affordable rates.

○ Employment creation in the aviation sector.

➤ **Key Features:**

○ Under the scheme, **airlines have to cap airfares for 50% of the total seats** at Rs. 2,500 per hour of flight.

➤ **This would be achieved through:**

○ A **financial stimulus in the form of concessions** from Central and State governments and airport operators and

- **Viability Gap Funding (VGF)** – A government grant provided to the airlines to bridge the gap between the cost of operations and expected revenue.

  ■ **Regional Connectivity Fund (RCF)** was created to meet the viability gap funding requirements under the scheme.

○ The partner State Governments (other than **UTs and NER states where contribution will be 10%**) would **contribute a 20% share to this fund.**

➤ **Previous Phases of the Scheme:**

○ **Phase 1** was launched in 2017, with the objective of **connecting underserved and unserved airports** in the country.

Note:

○ **Phase 2** was launched in 2018, with the aim of **expanding air connectivity to more remote and inaccessible parts** of the country.

○ **Phase 3** was launched in November 2018, with the focus on enhancing **air connectivity to hilly and remote regions** of the country.

● **Phase 4 of the UDAN scheme** was launched in December 2019, with a focus on **connecting islands and other remote areas** of the country.

➢ **Key Features of UDAN 5.0:**

○ It focuses on **Category-2 (20-80 seats)** and **Category-3 (>80 seats)** aircrafts.

○ There is **no restriction on the distance between the origin and the destination** of the flight.

○ **VGF to be provided will be capped at 600 km** stage length for both Priority and Non-Priority areas; earlier capped at 500 km.

○ **No predetermined routes would be offered;** only Network and Individual Route Proposal proposed by airlines will be considered.

○ The **same route would not be awarded to a single airline** more than once, whether in different networks or in the same network.

○ **Exclusivity of operation provided to an airline will be withdrawn** if the average quarterly Passenger Load Factor **(PLF) is higher than 75% for four continuous quarters.**

● This has been done to **prevent exploitation of the monopoly on a route.**

○ **Airlines would be required to commence operations within 4 months** of the award of the route; earlier this deadline was 6 months.

○ **Novation process** for routes from one operator to another has been **simplified and incentivized.**

● Novation - The process of substituting an existing contract with a replacement contract, where the contracting parties reach a consensus.

What are Achievements under UDAN Scheme?

(As per the data released in Aug 2022 by the Ministry of Civil Aviation)

➢ The scheme has also been able to **provide a fair amount of air connectivity to Tier-2 and Tier-3 cities** at affordable airfares and has transformed the way travelling was done earlier.

➢ The number of operational **airports has gone up to 141 from 74 in 2014**.

➢ **68 underserved/unserved destinations** which include 58 Airports, 8 Heliports & 2 Water Aerodromes have been connected under UDAN scheme.

➢ With 425 new routes initiated, **UDAN has provided air connectivity to more than 29 States/ UTs** across the country.

➢ **More than one crore passengers** have availed the benefits of this scheme.
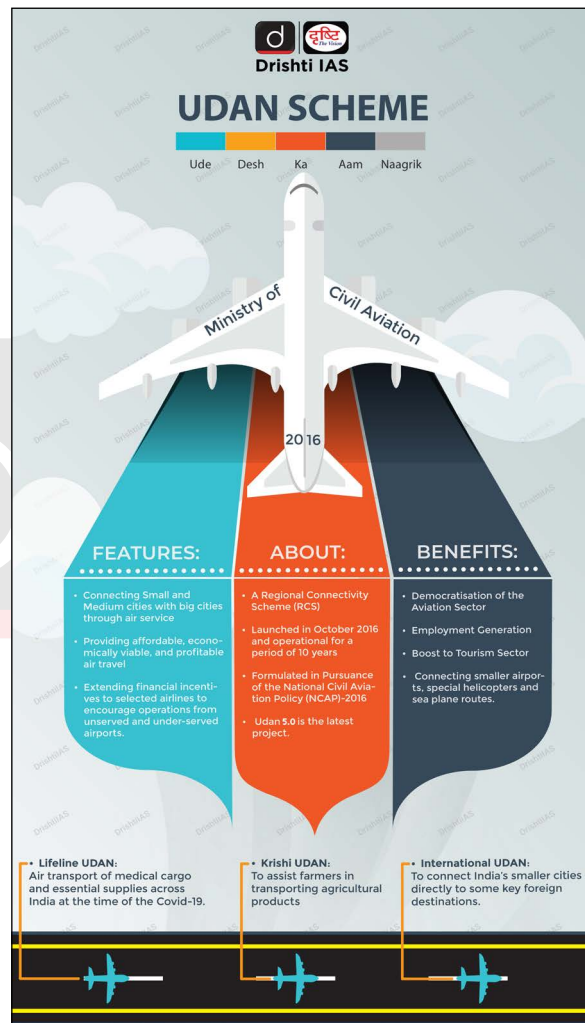
Settlement of Border Dispute between Assam and Arunachal Pradesh

Why in News?

Recently, the **border dispute between Assam and Arunachal Pradesh**, which was going on since 1972 has **been resolved permanently.**

Note:

➤ Assam and Arunachal Pradesh share an 804-km long boundary.

What are the Major Highlights of the Agreement?

➤ The agreement is expected to settle the dispute relating to **123 villages covering over 700 kilometres of the border between the two states,** taking into account **historical perspective, demographic profile, administrative convenience, proximity to the border,** and aspirations of the residents.
  ○ This will be final agreement **neither of states will make any new claim in future** relating to any area or village

➤ A detailed survey will be conducted by the **Survey of India** in the presence of representatives from both state governments t**o determine the boundaries after the agreement.**

What are the Other Border Disputes Between States in India?

➤ **Karnataka-Maharashtra:**
  ○ The border dispute over **Belagavi, Karwar and Nipani in North Karnataka** is long-standing. When state boundaries were redrawn on linguistic lines as per the **States Reorganisation Act of 1956,** Belagavi became part of the erstwhile **Mysore state.**
    ● The **Act was based on the findings of the Justice Fazal Ali Commission** which was appointed in 1953 and submitted its report two years later.
    ● **Maharashtra claims that parts of Belagavi,** where Marathi is the dominant language, should remain in Maharashtra.
  ○ In October 1966, the C**entre set up the Mahajan Commission** to resolve the border dispute in Maharashtra, Karnataka and Kerala.
    ● The Commission recommended that **Belgaum and 247 villages remain with Karnataka.** Maharashtra rejected the report, and in 2004, moved the Supreme Court.

➤ **Assam-Mizoram:**
  ○ The border dispute between **Assam and Mizoram is a legacy of two British-era notifications of 1875 and 1933,** when Mizoram was called **Lushai Hills, a district in Assam.**
    ● The **1875 notification differentiated Lushai Hills from the plains of Cachar** and the other

demarcated boundary between Lushai Hills and Manipur.
  ○ While **Mizoram became a state only in 1987** following years of insurgency, it **still insists on the boundary decided in 1875.**
    ● Assam, on the other hand, wants the **boundary demarcated in 1986 (based on the 1933 notification).**

➤ **Haryana-Himachal Pradesh:**
  ○ The **Parwanoo region** has had the spotlight over the border dispute between the two states.
  ○ It is next to the **Panchkula district of Haryana** and the state has claimed parts of the land in **Himachal Pradesh** as its own.

➤ **Himachal Pradesh-Ladakh:**
  ○ **Himachal and Ladakh lay claim to Sarchu,** an area on the route between **Leh and Manali.**
  ○ It is considered a major point where travellers stop when travelling between the two cities.
    ● Sarchu is in between **Himachal's Lahul and Spiti district and Leh district in Ladakh.**

➤ **Meghalaya-Assam:**
  ○ The problem between **Assam and Meghalaya started when the latter challenged the North-Eastern Areas (Reorganisation) Act, 1971** , which gave Blocks I and II of the **Mikir Hills** or **present-day Karbi Anglong district to Assam.**
  ○ Meghalaya contends that both these blocks formed part of the erstwhile **United Khasi and Jaintia Hills district when it was notified in 1835**.

➤ **Assam-Nagaland:**
  ○ It began **soon after Nagaland became a state in 1963.**
  ○ The **Nagaland State Act of 1962** had defined the state's borders according to a 1925 notification when **Naga Hills and Tuensang Area (NHTA)** were integrated into a new administrative unit.
  ○ Nagaland, however, does not accept the boundary delineation and has **demanded that the new state should also have all Naga-dominated areas i**n North Cachar and Nagaon districts. S
  ○ Tensions between **Assam and Nagaland** flared up soon after the latter was formed, resulting in the first border clashes in 1965.
    ● This was followed by major clashes between the two states along the border in **1968, 1979, 1985, 2007 and 2014.**

Note:

Border wars

Ladakh-
Himachal
Pradesh

Haryana-
Himachal
Pradesh

Assam-
Arunachal
Pradesh

Assam-
Nagaland

Assam-
Mizoram

Assam-
Meghalaya

Karnataka-
Maharashtra

* Ongoing disputes
as per home ministry
reply in Lok Sabha

What are the Other Methods of Resolution of Border Disputes in India?

➢ **Through Exclusive Original Jurisdiction of SC:**

○ The Supreme Court has exclusive original jurisdiction as per **Article 131 of the Constitution of India**, which means no other court can hear these cases:

● It can hear disputes between the Government of India and one or more States.

● It can hear disputes between the Government of India and any State(s) on one side, and one or more other State(s) on the other.

● It can hear disputes between two or more States if the dispute involves a question of law or fact on which the existence or extent of a legal right depends.

○ **Limitations on Jurisdiction:** The Supreme Court's jurisdiction does not extend to **disputes arising out of treaties, agreements, covenants, engagements,** or similar instruments entered into **before the commencement of the Constitution and continuing in operation**, or if the instrument provides that the jurisdiction shall not extend to such disputes.

➢ **Through Inter-State Council:**

○ **Article 263** of the Constitution empowers the President to establish an **Inter-state Council** if it appears that the **public interests would be served by such a Council.**

○ It serves as a **forum for discussion and resolution of disputes between states**, as well as for investigating and discussing subjects of common interest among states or between the Union and one or more states.

○ In 1990, **the Inter-state Council was established through a Presidential Order.**

● In 2021, the **Council was reconstituted.**

Screening Test for Heart Ailments

Why in News?

Recently, some experts have suggested the Large-Scale Screening Tests to prevent **Heart Ailments.**

What is the Screening Test?

➢ **About:**

○ The main purpose of screening or early detection is to **pick up people with probable disease** and confirm it with another test.

● Screening tests are usually **cheap and easy to operate on a large-scale** while confirmatory tests are resource intensive.

○ The goal of **mass screening is to detect heart diseases** in their early stages, before symptoms appear, so that preventive measures can be taken to reduce the risk of future heart attacks or sudden cardiac death.

○ The screening tests for heart ailments include **Blood Pressure** measurement, cholesterol and lipid profile test, ECG (Electrocardiogram), etc.

○ These tests can help identify the risk of **heart disease, irregular heart rhythms, abnormalities** in the heart's structure or function.

➢ **Need:**

○ The need for screening tests for heart ailments is to **detect any underlying risk factors or signs** of heart disease **before it becomes life-threatening.**

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- Sudden blockages of the artery supplying the heart **can lead to a heart attack, which can be fatal**.
- Screening tests can help **identify risk factors such as high blood pressure, high cholesterol levels**, or irregular heart rhythms, **which can be managed with lifestyle changes, medication, or other interventions** before they develop into more severe forms of heart disease.

What are the Challenges Related to Screening at Mass Level?

➢ **Risk of Procedure or False Labeling:**
- The risks associated with screening tests include **both the risk of procedure** (how tests are performed) **as well as false labeling.**
  - For instance, stress ECG when used as a screening test in young asymptomatic patients gives many false positives.
- This results in unnecessary **anxiety and more unwarranted tests** to confirm or reject its findings.
➢ **Additional Risk and Costs:**
- Tests like stress echocardiography/radionuclide test and CT angiography can accurately detect blockages and people with higher risk for cardiac events as compared to ECG. But there may also be associated risks related to false results, leading to unnecessary test and additional Costs.
  - A Danish study published in 2022 showed that a population well-treated for risk factors for heart disease derived no benefit from **additional tests, including CT scans.**
➢ **Lack of Access to Tests:**
- In India, a significant portion of the population (about 25-30%) is above 40 years old. However, most district **hospitals and some medical colleges in India do not have access to imaging tests** such as stress echocardiography, radionuclide tests, and CT angiography.
  - Moreover, these tests are relatively expensive, ranging from Rs 6,000 to Rs 15,000 in the public or private sector.
- It is crucial to take into account the accessibility of these tests for the public and whether **our healthcare infrastructure is capable of handling individuals** who receive a positive test result.

What are the Important Facts Related to Heart Ailments?

➢ **About:**
- **Cardiovascular diseases (CVDs)** is a group of disorders of the heart and blood vessels and include coronary heart disease, cerebrovascular disease, rheumatic heart disease and other conditions.
- CVDs are the **leading cause of death globally**, taking an estimated 17.9 million lives in 2019 according to **WHO.**
- More than **four out of five CVD deaths are due to heart attacks and strokes**, and **one third of these deaths occur prematurely** in people under 70 years of age.
- Total economic burden of cardiovascular diseases (CVD) in India is approximately **Rs 6 trillion annually.**
➢ **Indian Initiative:**
- **National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS)** is being implemented under the **National Health Mission (NHM).**
- **Affordable Medicines and Reliable Implants for Treatment (AMRIT)** Deendayal outlets have been opened at 159 Institutions/Hospitals with an objective to make available Cancer and Cardiovascular Diseases drugs and implants at discounted prices to the patients.
- **Jan Aushadhi** stores are set up by the Department of Pharmaceuticals to provide generic medicines at affordable prices.
- **ST-Elevation Myocardial Infarction (STEMI) Project**: The **Maharashtra government** launched the STEMI programme recognised by **NHM** in 2021 to **enable rapid diagnosis of heart disease.**
  - ST-Elevation Myocardial Infarction (STEMI) is a condition wherein one of the **heart's major arteries, supplying oxygen-rich blood to the heart** muscle, gets completely blocked.

Animal Birth Control Rules, 2023

Why in News?

Recently, the Ministry of Fisheries, Animal Husbandry & Dairying has issued the **Animal Birth Control Rules,**

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2023. These Rules supersede the **Animal Birth Control (Dog) Rules, 2001,** and are issued under the **Prevention of Cruelty to Animal Act, 1960.**

What are the Major Points Related to Animal Birth Control Rules, 2023?

➢ **Background:**
  ❍ India recorded a whopping **160 million cases of street/stray dog bites between 2019 and 2022,** according to data submitted in **Parliament** till **November 2022.**
  ❍ This has also led to an **increase in revenge crime and atrocities against dogs,** feeders of dogs and caregivers as well as conflicts among urban residents.

➢ **Provisions:**
  ❍ The Rules have been formulated in accordance with the guidelines provided by the Hon'ble Supreme Court related to **Animal Welfare Board of India** and People for Elimination of Stray Troubles.
    ● The **Supreme Court** has specifically mentioned in various orders that **relocation of dogs cannot be permitted.**
  ❍ The Rules aim to provide guidelines for the **sterilisation and immunisation of stray dogs** through **Animal Birth Control (ABC) programmes.**
    ● The responsibility of carrying out ABC programmes lies with the respective **local bodies, municipalities,** municipal corporations, and panchayats.
    ● The Municipal Corporations are required to implement the **ABC and Anti Rabies Program jointly.**

Rabies

➢ **About:**
  ❍ **Rabies** is a **vaccine-preventable, zoonotic, viral disease** affecting the central nervous system.
    ● It is present on all **continents except Antarctica,** with over 95% of human deaths occurring in Asia and Africa.

➢ **Cause**:
  ❍ It is caused by a **Ribonucleic Acid (RNA) virus** that is present in the saliva of a rabid animal (dog, cat, monkey, etc).

  ❍ It is invariably transmitted following a bite of an infected animal that leads to **deposition of the saliva and the virus in the wound.**
    ● **According to WHO,** Dogs are the main source of human rabies deaths, contributing up to **99% of all rabies transmissions to humans.**

➢ **Status in India:**
  ❍ **India is endemic for rabies, and accounts for 36% of the world's rabies deaths.**
  ❍ According to WHO, about **30-60% of reported rabies cases and deaths in India occur in children under the age of 15 years** as bites that occur in children often go unrecognised and unreported**.**

➢ **Treatment:**
  ❍ Rabies can be prevented by **vaccinating pets, and seeking medical care after potential exposures before symptoms start.**

➢ **Initiatives Related to Rabies Control:**
  ❍ **Global:**
    ● **United Against Rabies Forum:** Th**e UAR Forum** brings together global experts from various organisations, ministries and countries so that they can work towards specific objectives and activities to facilitate efforts towards achieving **Zero dog-mediated human rabies deaths by 2030.**
  ❍ **Indian:**
    ● **National Action Plan for Dog Mediated Rabies Elimination by 2030 (NAPRE):** The NAPRE was drafted by the **National Centre for Disease Control (NCDC)** in association with the **Ministry of Fisheries, Animal Husbandry, and Dairying**.
    ● Its approach for elimination of rabies is based on recommendations of several international agencies like **WHO** and the **Global Alliance of Rabies Control (GARC).**
  ❍ It provides guidelines on **how to deal with human and stray dog conflicts** without relocating the dogs in an area.
  ❍ It also **emphasises addressing the cruelty involved** in carrying out ABC programmes, **ensuring animal welfare.**

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Sangathan se Samriddhi: DAY-NRLM

Why in News?

Recently, the Ministry of Rural Development's **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)** launched a national campaign called **"Sangathan Se Samridhhi**– Leaving no Rural Woman Behind"**, aiming to mobilize a significant number of women into **Self Help Groups (SHGs).**

What is Sangathan Se Samridhhi Campaign?

➤ **About:**
  ❍ The campaign is a part of the **Azadi Ka Amrit Mahotsav Samaveshi Vikaas** and aims to mobilize 10 crore women from eligible rural households into SHGs.
  ❍ It aims to mobilize **disadvantaged rural communities** who are unaware of the benefits of the DAY-NRLM program.
  ❍ The campaign will be organized in all states and form more than 1.1 lakh SHGs through interventions like:
    ● Organising general Body Meetings of Village Organizations
    ● Experience sharing by SHG champions to motivate left-out households to join SHGs
    ● Conducting Community Resource Person drives
    ● Opening SHG bank accounts, and creation of a common database of SHGs promoted by other stakeholders.

➤ **Need for Such a Campaign:**
  ❍ India's rural population accounts for 65% of its total population, and it is crucial to accord women from these areas all possible **opportunities to enable them to contribute significantly to making** India a **5 trillion dollar economy**.
  ❍ When women in such a big number become part of SHGs, it will automatically have a **considerable effect on the country's GDP (Gross Domestic Product).**

How can SHGs help in Women Empowerment?

➤ **Economic Empowerment:**
  ❍ SHGs provide women entrepreneurs with **micro-loans** to sustain their businesses, while also creating an environment for them to develop greater agency and decision-making skills.
    ● A 2022 study by Institute for Financial Management and Research (IFMR) suggested that women aided by SHGs were **10% more likely to save on a regular basis**, resulting in economic empowerment, while working towards a better future for the next generation.

➤ **Women Entrepreneurship:**
  ❍ SHGs also deliver services ranging from **entrepreneurial training, livelihood promotion and community development** for women entrepreneurs.
  ❍ In Maharashtra alone, there are 527,000 SHGs, which have accounted for over **50% of all women-led small-scale industrial units in India.**
    ● This is a clear indication that SHGs can lead to the overall development of women entrepreneurship.

➤ **Skill Development:**
  ❍ SHGs also provide **training and capacity building to their members**. Women can learn new skills, such as **tailoring, handicrafts, or farming techniques.**
  ❍ This not only helps them to improve their earning potential but also enhances their self-confidence and self-esteem.

➤ **Social Empowerment:**
  ❍ SHGs provide a platform for women to come together and share their experiences. This **creates a sense of solidarity among women** and helps to break down social barriers.
  ❍ It also enables women to participate in decision-making at the household and community level, giving them a voice and greater control over their lives.

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What is Deendayal Antyodaya Yojana-National Rural Livelihood Mission?

➤ **About:**
  ○ It is a **Centrally Sponsored Programme**, launched by the Ministry of Rural Development in 2011.
  ○ It aims to **eliminate rural poverty through the promotion of multiple livelihoods** and improved access to financial services for the rural poor households across the country.

➤ **Functioning:**
  ○ It involves working with community institutions through community professionals in the spirit of **self-help which is a unique proposition of DAY-NRLM.**
  ○ It impacts livelihoods by
    ● Mobilizing rural households into SHGs.
    ● Organizing one-woman member from **each rural poor household** into SHGs
    ● Providing training and **capacity building to SHG members**
    ● Providing access to financial resources from their own institutions and banks.

➤ **Sub Programs:**
  ○ **Mahila Kisan Shashaktikaran Pariyojana (MKSP):** It aims to promote agro-ecological practices that increase women farmers' income and reduce their input costs and risks.
  ○ **Start-Up Village Entrepreneurship Programme (SVEP):** It aims to support entrepreneurs in rural areas to set up local enterprises.
  ○ **Aajeevika Grameen Express Yojana (AGEY):** It was launched in August 2017, to provide safe, affordable and community monitored rural transport services to connect remote rural villages.
  ○ **Deendayal Upadhyaya Grameen Kaushalya Yojana (DDUGKY):** It aims at building placement-linked skills of the rural youth and placing them in relatively higher wage employment sectors of the economy.
  ○ **Rural Self Employment Institutes (RSETIs):** DAY-NRLM, in partnership with 31 Banks and State Governments, is supporting Rural Self Employment Institutes (RSETIs) for skilling rural youth to take up gainful self-employment.

➤ **Outcome:**
  ○ By July 2022, 8.35 crore women were connected to NRLM and there were 5.9 lakh crore bank linkages, while the NPAs have reduced to 2.5 %.
    ● Till 2014, It involved 2.35 lakh houses, had 80,000 crore bank linkages with **Non-Performing Assets (NPAs)** at 9.58 %.
  ○ As of May 2021, there are 6.9 million SHGs in India with 75 million members across 7,83,389 villages.
  ○ The NRLM has enabled rural families to negotiate for greater access to essential services such as education and healthcare.
    ● It has improved **food security, improved school enrolment, access to land for women to grow food**, and created an impact on gender issues with women's groups taking on issues like dowry, child marriage, and discrimination against girls.

Nagaland's Opposition to Women's Reservation in ULB Polls

Why in News?

The recent controversy in **Nagaland over the reservation of seats for women in urban local body (ULB) polls** has sparked a heated debate among various stakeholders in the state.

➤ The **issue centers around the Nagaland Municipal Act of 2001, which mandated a 33% reservation for women in ULB polls**, as per the **74th Amendment to the Constitution of India.**

What is the 74th Constitutional Amendment Act?

➤ **Urban local governments** were constitutionalized through the **74th Amendment Act** during the regime of **P.V. Narsimha Rao's government** in 1992. It came into force on 1st June 1993.
  ○ It added **Part IX -A** and consists of provisions from **Articles 243-P to 243-ZG.**
  ○ In addition, the act also added **the 12th Schedule to the Constitution.** It contains **18 functional items of Municipalities.**

Note:

Why is there Opposition to ULB Polls in Nagaland?

➤ **Reservation for Women Against the Customs:**

❍ Most of the traditional tribal and urban organizations **oppose the 33% reservation of seats for women,** arguing that it would violate the special provisions granted by **Article 371A** of the Constitution to Nagaland.

● According to Article 371A, **Parliament cannot make laws about the religious or social practices of the Nagas, their traditional laws, and how they solve legal problems, or who owns and uses the land unless the Nagaland Legislative Assembly agrees.**

❍ The apex tribal body of Nagaland, **Naga Hoho argues that women have traditionally not been part of decision-making bodies.**

❍ **Nagaland is the only state where ULB seats are not reserved for women.**

➤ **Demand of Protestors:**

❍ The tribal bodies and civil society organizations threatened to boycott the polls until the Municipal Act of 2001 factoring in women's reservation is "reviewed and rewritten in complete consonance of the voice of the Naga people" so that it does not infringe upon Article 371A.

➤ **Previous ULB Polls in Nagaland:**

❍ The **first and only civic body election in Nagaland was held in 2004 without any reservation of seats for women.**

● In 2006, the **State govt amended the Municipal Act 2001 to include 33% reservation for women,** triggering widespread opposition that led to the indefinite postponement of the ULB polls in 2009.

■ Efforts to hold the elections in March 2012 also met with strong protests, and in September 2012, the **State Assembly passed a resolution to exempt Nagaland from Article 243T of the Constitution related to the reservation for women.**

◆ This resolution was revoked in 2016, and elections to the civic bodies with 33% reservation were notified a month later, again leading to widespread mayhem.

◆ The government declared the process to conduct elections null and void in February 2017.

What are Urban Local Bodies (ULB)?

➤ **About:**

❍ **Urban Local Bodies (ULBs)** are small local bodies that administer or govern a city or a town of a specified population.

❍ ULBs are vested with a long list of functions delegated to them by the state governments broadly related to **public health, welfare, regulatory functions, public safety, public infrastructure works, and development activities**.

➤ **Structure:**

❍ The **Urban Local Government** consists of **eight types of Urban local bodies.**

● **Municipal Corporation:**

● **Municipal corporations** are usually found in **big cities** such as Bangalore, Delhi, Mumbai, Kolkata, etc

➤ **Municipality:**

❍ The **smaller cities** tend to have the provision of **municipalities**.

❍ The Municipalities are often called upon by other names such as the **municipal council, municipal committee, municipal board**, etc.

➤ **Notified Area Committee:**

❍ Notified area committees are set up for the fast-developing towns and the **towns lacking the basic amenities.**

❍ **All the members of the notified area committee are nominated by the state government.**

➤ **Town Area Committee:**

❍ The town area committee is found in **small towns**.

❍ It has **minimal authority such as street lighting, drainage roads, and conservancy.**

➤ **Cantonment Board:**

❍ It is usually set up for a civilian population living in the cantonment area.

❍ It is **created and run by the central government.**

➤ **Township:**

❍ Township is another form of urban government to provide basic facilities to the **staff and workers living in the colonies established near the plant.**

Note:

- ❍ **It has no elected members and is merely an extension of the bureaucratic structure.**
- ➤ **Port Trust**
  - ❍ Port trusts are established in the **port areas such as Mumbai, Chennai, Kolkata,** etc.
  - ❍ It manages and takes care of the port.
  - ❍ It also provides basic civic amenities to the people living in that area.
- ➤ **Special Purpose Agency:**
  - ❍ These agencies undertake the designated activities or specific functions belonging to the municipal corporations or municipalities.

Ninth Schedule of Constitution

Why in News?

Recently, the Chhattisgarh Chief Minister wrote to the Prime Minister seeking the inclusion of two amendment Bills **allowing for a higher quota of reservation in jobs and educational institutions, in the Ninth Schedule of the Constitution**.

What are these Bills?

- ➤ In Chhattisgarh, the State Assembly unanimously approved the two amendment bills, **creating a 76% quota for members of the Scheduled Caste, Scheduled Tribes, and Other Backward Classes.**
  - ❍ The **Governor** has not yet approved the bills.

Why is there a Need to Include these Bills in Ninth Schedule?

- ➤ The Ninth Schedule of the Constitution **includes a list of Central and State laws that cannot be challenged in courts.** Including the two amendment Bills in the Ninth Schedule **would make them immune to legal challenges.**
- ➤ Chhattisgarh government argues that including the amended provisions in the Ninth Schedule is **crucial for providing justice to the backward and deprived classes in the State.**
- ➤ Previously, the Chhattisgarh High Court had struck down a government order **allowing 58% quota, stating that the reservation cannot exceed 50% as it unconstitutional**.

- ❍ However, **two amendment Bills were passed by the State Assembly to provide 76% quota for Scheduled Caste, Scheduled Tribes, and Other Backward Classes.**

What is the Ninth Schedule?

- ➤ The Schedule contains a list of **central and state laws which cannot be challenged in courts** and was added by the **Constitution (First Amendment) Act, 1951.**
  - ❍ The first Amendment added **13 laws to the Schedule.** Subsequent amendments in various years have taken the number of protected laws to 284 currently.

Are Laws in the Ninth Schedule completely Exempt from Judicial Scrutiny?

- ➤ *Keshavananda Bharati v. State of Kerala (1973)*: The Supreme court upheld the judgement in Golaknath and introduced a new concept of **"Basic structure of the Indian Constitution"** and stated that, "all provisions of the constitution can be amended but those amendments which will abrogate or take away the essence or basic structure of constitution which included **Fundamental Rights are fit to be struck down by the court"**.
- ➤ *Waman Rao v. Union of India (1981)*: In this important judgement, the SC ruled that, "those amendments which were made in the constitution before 24th April 1973 (date on which judgement in Keshavananda Bharati was delivered) are valid and constitutional but those which were made after the stated date are open to being challenged on the ground of constitutionality.
- ➤ *I R Coelho v. State of Tamil Nadu (2007)*: It was held that every law must be tested under Article 14, 19 and 21 if it came into force after 24th April 1973.
  - ❍ In addition, the court upheld its previous rulings and declared that any act can be challenged and is **open to scrutiny by the judiciary if it is not in consonance with the basic structure of the constitution.**
  - ❍ In addition, it was held that if the constitutional validity of any law under the ninth schedule has been upheld before, in future it cannot be challenged again.

- ➤ It was created by the new Article 31B, which along with Article 31A was brought in by the government

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to protect laws related to **agrarian reform and for abolishing the Zamindari system.**

○ While Article 31A extends protection to 'classes' of laws, Article 31B shields **specific laws or enactments.**

○ While most of the laws protected under the Schedule concern agriculture/land issues, the list includes other subjects.

➢ Article 31B also has a retrospective operation which means that if laws are inserted in the Ninth Schedule after they are declared unconstitutional, they are **considered to have been in the Schedule** since their commencement, and thus valid.

➢ Although Article 31B excludes judicial review, the **Supreme court has said in the past that even laws under the Ninth Schedule would be open to scrutiny if they violated Fundamental Rights or the basic structure of the Constitution.**

SC and Plea over Probe Agencies

Why in News?

Recently, the **Supreme Court (SC)** has refused to entertain a plea by some political parties alleging **"selective and targeted" use of Central probe agencies** such as the **CBI (Central Bureau of Investigation)** and **ED (Directorate of Enforcement)** by the Central government against their leaders.

➢ The Enforcement Directorate (ED) frequently summons politicians, celebrities, and NGOs, leading to accusations that **it is being used as a tool by the central government to control political opponents.**

What is the SC's Observation?

➢ The plea sought laying down guidelines for arrest, remand and bail for politicians.

➢ However, the SC, stated that politicians stand on the same footing as the citizens of the country and cannot have a different set of procedures. The court can intervene only in individual cases when the facts are before it, but it cannot lay down separate general guidelines only for politicians.

➢ The petitioners alleged a **skewed application of the law leading to an "uneven playing field"** and shrinking space for dialogue.

➢ Petitioner argued that there has been a huge increase in CBI and ED cases between 2014 and 2021, but there have been only 23 convictions. Of the 121 political leaders probed by ED and 124 probed by CBI, he said 95 % were from the opposition.

➢ However, the bench pointed out that the conviction rate in the country was dismal, and a politician **is basically a citizen and, as citizens, all are amenable to the same law.**

What makes Probe Agencies Vulnerable to Political Interferences?

➢ The ED and CBI in India are **not statutory bodies and are instead governed by executive orders**. This makes them **more susceptible to political interference** by the government of the day.

○ As a result, these agencies have **often been accused of carrying out politically motivated investigations or turning a blind eye** to certain crimes based on political considerations.

○ These agencies **lack the necessary autonomy and independence** to carry out their mandate of investigation and prosecution of crimes in a fair and transparent manner. Additionally, they are also **susceptible to budgetary cuts or other forms of pressure** that could impact their ability to function effectively.

What are the Concerns Related to Misuse of Central agencies?

➢ **Political Influence:** The agencies may be used by the **ruling political party to target political opponents** and dissenters, leading to the misuse of these agencies for political gains.

○ In 2017 when the CBI had registered a case against Karti Chidambaram and a few others for allegedly receiving kickbacks in exchange for facilitating **Foreign Investment Promotion Board (FIPB)** which was said to be political motive.

➢ **Lack of Transparency and Accountability:** The agencies often work behind closed doors, and there is a **lack of transparency in their functioning**. This opacity can lead to suspicion and mistrust in their actions.

○ There is a lack of accountability and oversight in the functioning of these agencies, which can lead to misuse and abuse of power.

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➤ **Abuse of Power:** There have been instances where the agencies have been accused of overstepping their authority and misusing their power to intimidate or harass individuals.

➤ **Violation of Human Rights:** The agencies may use coercive tactics, such as illegal detentions, torture, and custodial violence, **which violate human rights.**

  ❍ In 2020, a father and son in Tamil Nadu were allegedly tortured to death in police custody. The incident sparked widespread outrage and calls for justice.

➤ **Delayed Justice:** The cases investigated by these agencies often take years to resolve, leading to a delay in justice and causing harm to the reputation and livelihood of individuals who may be innocent.

Voice Samples in Criminal Investigations

Why in News?

Recently, a political leader appeared before the **Central Bureau of Investigation** to submit his voice samples for corroboration with a particular speech concerning his alleged involvement in in the 1984 anti-sikh riots case.

➤ Voice samples have become an **important tool in criminal investigations,** allowing investigators to corroborate evidence and identify suspects.

How are Voice Samples Taken?

➤ **Procedure:**

  ❍ Investigating agencies move **to the court to seek permission to collect a person's voice sample.** Samples are taken in an **echo-proof room for a controlled and noise-free environment.**

  ❍ A voice recorder is used to record the sample where the subject is asked to speak a **specific clue word from a statement already part of the evidence.**

➤ **Methods of Comparison**:

  ❍ An anonymous voice sample is compared with a suspect list of five persons; however, when the speaker is known, both the voice samples are corroborated.

  ❍ International phonetic alphabets are used for recording voice where the subject pronounces only a small part of the original statement (for ease of analysis).

  ❍ **Voice Sampling in India:**

    ● **Semi-automatic spectrographic method** of voice sampling is used in Indian forensic labs.

    ● The forensic lab submits the final report to the investigating agency, indicating whether the results of the voice sample analysis are positive or negative.

  ❍ However, in some countries, the automatic method is used, where a likelihood ratio of the voice samples is developed. This increases efficiency.

➤ **Drawbacks:**

  ❍ **Inaccuracies may arise if the person's voice is altered due to the effect of medicines** or if the person is suffering from a cold.

  ❍ The **credibility of the sample depends on the technique** used by the expert and how the court analyzes it.

What is the Legality behind Collecting Voice Samples?

➤ In 2013, the Indian Supreme Court considered whether collecting voice samples **would be violative of the fundamental right against self-incrimination or the right to privacy.**

➤ **Section 53 (1) of the Code of Criminal Procedure allows examination of accused by a medical practitioner at the request of a police officer** to collect samples for DNA analysis or taking general body measurements and "such other tests necessary"

  ❍ The phrase "such other tests" in Section 53 (1) is read to include a collection of voice samples. However, there is no specific provision for testing voice samples under criminal procedure laws as it is a relatively new technological tool.

  ❍ In a split verdict in the 2013 case, the SC also acknowledged the absence of a specific law for this purpose.

➤ In a subsequent 3-judge bench hearing, the Supreme Court held that the **fundamental rights of the accused will not be violated by collecting a voice sample for investigation.**

Note:

○ It held that the **right to privacy cannot be construed as absolute** and **must bow down to compelling public interest.**

- Recently, in 2022, a ruling by the Punjab and Haryana High Court also observed that voice samples resemble fingerprints and handwriting and are collected with permission in accordance with the law and are used for comparing evidence already collected.

What are the Past Cases where Voice Samples were Collected?

➢ **India:**

○ A Special Courts under Essential Commodities and Narcotic Drugs and Psychotropic Substances Act (NDPS) had allowed a plea moved by the **Narcotics Control Bureau (NCB)** in February 2021, seeking the collection of voice samples among 33 accused in a drugs case it was investigating after the death of actor Sushant Singh Rajput.

➢ **Other Countries:**

○ The **US Federal Bureau of Investigation (FBI) first used the technique of voice identification analysis in the 1950s**.

Digital Health Summit 2023

Why in News?

Recently, **Digital Health Summit 2023** was organized by the **Confederation of Indian Industry (CII)** in Goa.

➢ CII is a non-government, not-for-profit, industry-led and industry-managed organization.

What is Digital Healthcare?

➢ **About**:

○ Digital healthcare is a **system of medical care delivery** that uses an array of **digital technologies** to make quality medical care services **accessible, affordable, and sustainable.**

○ The broad scope of digital health includes categories such as **mobile health (mHealth), health information technology (IT), wearable devices, telehealth and telemedicine, and personalized medicine.**

➢ **The WHO Global Strategy on Digital Health, adopted in 2020 by the World Health Assembly,** presents a roadmap to link the latest developments in innovation and digital health, and put these tools to action in order to improve health outcomes.

➢ **Major Applications:**

○ **Point-of-Care Diagnostics:** Point-of-care Diagnostics ("POCD") is an emerging trend in the medical device industry and encompasses a broad range of products which enables accurate diagnostics in resource limited setting by patients themselves or healthcare practitioners.

- In the recent past multiple applications such as **biosensors, portable x rays, handheld ultrasounds and smartphone based POCD have been developed.**

○ **Medical Virtual Assistants: Virtual health assistants and chatbots** bridge the gap between patients and physicians and tend to the needs of the patients in between physical appointments through services such as **appointment scheduling, maintain health records and other administrative tasks.**

○ **Self-Monitoring Healthcare Devices:** Monitors and sensors are now being **integrated into wearables**, which allow it to detect various physiological changes in the body.

- These smart devices are capable of tracking weight, sleep patterns, posture, diet and exercise.
  - **e-Pharmacies:** An e-pharmacy is a pharmacy that **operates over the internet and fulfils the orders through mail, courier or delivery persons**

➢ **Benefits of Digital Healthcare**:

○ Telemedicine has played a pivotal role in the **decentralisation of healthcare** and ensuring **access to remote and advanced care.**

○ Patients in rural and remote areas can now access **affordable and quality healthcare through online consultation** and home delivery of medicines.

○ Digital tools can provide healthcare providers with an **extensive view of patient health by increasing access to health data.**

Note:

What are the Major Highlights of Digital Health Summit 2023?

➢ It highlighted the importance of **digital health innovations** and how they can empower **exponential medicine, including 3D printing,** point-of-care diagnostics, robots, **bioinformatics, and genomics.**

➢ It aims to create a **digital public goods framework** to promote standards for **interoperability, data privacy, and data security.**

➢ It emphasised the **need for "citizen-centric" digital health systems** with equitable access to **high-quality treatments.**

   ❍ It also highlighted that health-tech is the most significant aspect of the **Fourth Industrial Revolution** and taking pre-emptive steps remains the key.

What are the Challenges Related to Digital Healthcare in India?

➢ **About:**

   ❍ Driven by the **Covid-19 pandemic,** India has adopted digital health at a breathtaking pace. The **unprecedented health crisis paved the way for the adoption of telemedicine** and thus proved to be a dawn of remote and patient-centric care in India.

➢ **Challenges:**

   ❍ **Absence of Clear Regulation:** The **absence of clear regulations and guidelines** may lead to fraudulent practices, **misuse of digital prescriptions,** data theft, and misuse of electronic health records.

     ● Also, the **lack of digital infrastructure and skilled professionals** is another roadblock to the digitalization of the healthcare system in India.

     ● **Data Privacy and Cybersecurity:** Ensuring data privacy and cybersecurity is crucial to **maintain patient trust in digital healthcare.** Lack of security measures can lead to data breaches and compromise patient data.

       ■ For example: An instance of **ransomware attack occurred at AIIMS Delhi recently.**

   ❍ **No Statutory Backing to E-pharmacy:** The **Drugs and Cosmetics Act, 1940** regulates the import, manufacturing and distribution of drugs in India.

     ● **However, there is no statutory definition of "e-pharmacy" either under the Drugs and Cosmetics Act, 1940 or the Pharmacy Act, 1948.**

➢ **Government Initiatives Related to Digital Health:**

   ❍ **Ayushman Bharat Digital Mission (ABDM),**

   ❍ **e-Sanjeevani Teleconsultation Service**

   ❍ **Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**

   ❍ **CoWIN App**

What are the WHO's Objectives for Promoting Digital Health and Innovation?

➢ **Translating data, research, and evidence into action** through standards for interoperability and data sharing and supporting implementation of digital solutions for informed decision making.

➢ **Enhancing knowledge through scientific communities** of practice facilitated by new technologies, enabling expert voices to come together around clinical and public health topics.

➢ **Systematically assessing and linking country needs with supply of innovations,** taking a proactive approach to identify, promote, co-develop, and scale innovations based on country needs.

Animal Pandemic Preparedness Initiative and Animal Health System Support for One Health

Why in News?

Recently, the Ministry of Fisheries, Animal Husbandry & Dairying has launched an **Animal Pandemic Preparedness Initiative (APPI) under One Health Approach** to address the threat of **diseases that can be transmitted from animals** to humans.

➢ One Health approach recognizes the **interconnectedness of human, animal, and environmental health.**

➢ The Ministry has also launched **Animal Health System Support for One Health (AHSSOH)** project, funded by the **World Bank.**

What is the Animal Pandemic Preparedness Initiative (APPI)?

➢ **About:**

   ❍ The initiative is in line with the **World Health Organization's (WHO) Global One Health strategy,**

which emphasizes the importance of multisectoral collaboration in addressing the threat of **zoonotic diseases**.

○ It will help to improve veterinary services and infrastructure, disease surveillance capabilities, early detection and response, build the capacity of animal health professionals, and awareness among farmers through community outreach.

➢ **Pillars of APPI:**
  ○ Disease Surveillance and Monitoring.
  ○ Disease Model Algorithms and Early Warning System.
  ○ Outbreak Investigation and Response.
  ○ Ecosystem Coordination.
  ○ Vaccine Development and Research and Development.
  ○ Building Disaster Resilience.
  ○ Funding.
  ○ Regulatory Framework.

➢ **Aim:**
  ○ The initiative aims to enhance India's preparedness and response capabilities to prevent and control zoonotic diseases, **thereby safeguarding the health of both animals and humans.**

What is Animal Health System Support for One Health (AHSSOH)?

➢ It aims to **create an ecosystem for a better animal health management system** using the One Health approach.

➢ The project will be implemented **over a five-year period as Central sector scheme.**

➢ It has set a goal to cover 151 districts in five participating states, focusing on upgrading 75 district/regional laboratories, as well as strengthening 300 veterinary hospitals/dispensaries.

What is the Scenario of Livestock Diseases Burden and Livestock Sector?
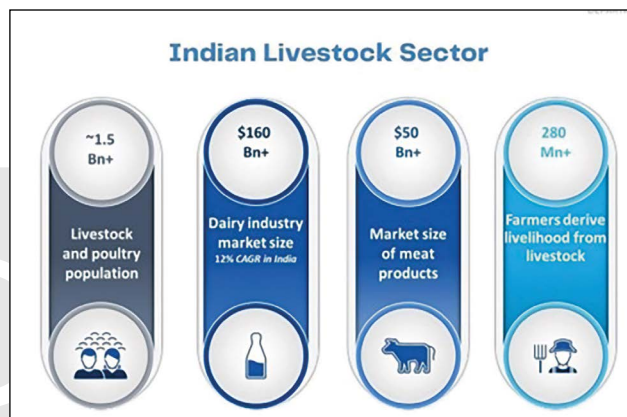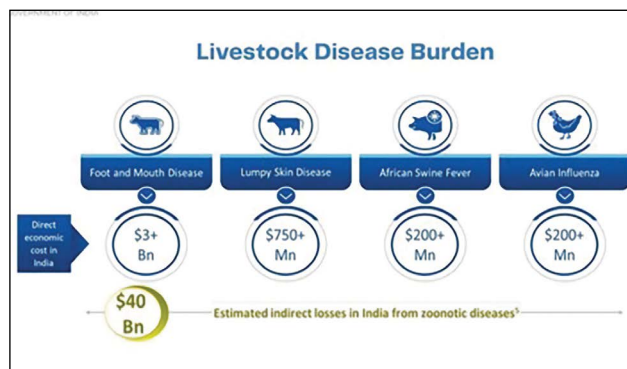
What is the National One Health Mission (NOHM)?

➢ **One Health:**
  ○ One Health brings together **different sectors to solve health, productivity, and conservation challenges**, which is important for India with its **diverse wildlife, large livestock population**, and high human density.
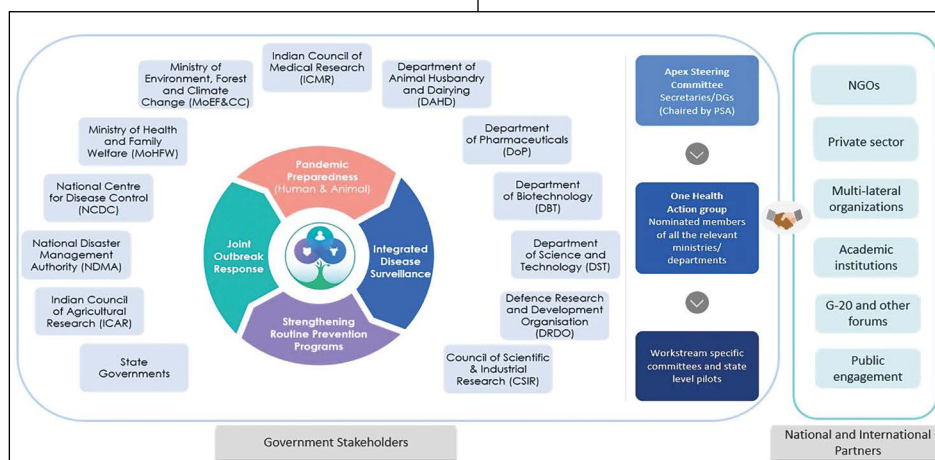
Note:

○ Recent disease outbreaks, like **Covid-19, Lumpy Skin Disease**, and **Avian Influenza**, show that addressing disease from just a human perspective isn't enough. We need to consider livestock and wildlife too.

➢ **About:**

○ The NOHM is a cross-ministerial effort approved by the **Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC)** in its 21st meeting.

○ The NOHM will be implemented by the Ministry of Health and Family Welfare in collaboration with other ministries.

➢ **Objective:**

○ The NOHM will focus on addressing the interdependence of human, animal, and environmental health to **promote holistic and integrated approaches to disease control and prevention.**

○ It aims to promote a coordinated and integrated approach to disease control and prevention in India, addressing the interdependence of human, animal, and environmental health.

➢ **Components:**

○ Strengthening surveillance and **Early Warning Systems** for zoonotic diseases and antimicrobial resistance

○ Promoting **research and development** in One Health areas

○ Improving **capacity building for health professionals,** veterinarians, and researchers

○ Enhancing **public awareness and community engagement** on One Health issues

○ Developing guidelines and policies for One Health interventions and strategies

○ Establishing a **One Health data repository** and information system

○ Facilitating **national and international collaborations** and partnerships to address One Health challenges.

Extra Judicial Killing

Why in News?

Recently, the **Supreme Court (SC)** has expressed its views on **Extra-Judicial Killings (EJK)** in India, after an Encounter in Uttar Pradesh, stating that **the right to life as a Fundamental Right** enshrined in the Constitution and EJKs **are a violation** of this right.

➢ The SC also said that in recent years, there have been several cases of encounters and extra-judicial killings in India, which have raised **concerns about the misuse of power by the police.**

What is Extra Judicial Killing?

➢ **About:**

○ Extra judicial killing refers to the killing of a person by the **state or its agents, without any judicial or legal proceedings.**

● This means that the person is killed without **a trial, due process, or any legal justification.**

■ Extra judicial killing can take various forms, such as **extrajudicial executions, summary executions, and enforced disappearances.** These acts are illegal and violate **human rights and the rule of law.**

■ They are often carried out by **law enforcement agencies or security forces** in the name of maintaining law and order or **Combating Terrorism.**

➢ **Constitutional Provisions:**

○ The Constitution intends that India should be **governed by the rule of law, according to which** the Constitution is the supreme power and the legislative and the executive derive their authority from it.

○ The Constitution guarantees the Right to Life and Personal Liberty under **Article 21,** which is non-negotiable and applicable to everyone. It is the responsibility of the police to follow the Constitution and protect the **Right to Life of every individual,** regardless of innocence or guilt.

➢ **Rights of Police:**

○ The police can use force, including lethal force, in self-defense or to maintain peace and order.

○ Every person has the right to self-defense under **Section-96 of the Indian Penal Code**.

● **Section-46 of the Criminal Procedure Code** allows the police to use force, including lethal force, to arrest someone accused of a serious crime.

Note:

- ➤ **Status of EJKs in India:**
  - ○ While India has seen a 15% decline in encounter killing cases registered in the six years between 2016-'17 and 2021-'22 – till March 2022 – the cases shot up by **69.5% in the last two years.**
    - ● India has registered **813 cases of encounter killings** in the last six years.
  - ○ In the six years since April 2016, Chhattisgarh recorded the **most extrajudicial killing cases at 259**, followed by Uttar Pradesh at 110 and Assam with 79.

What are the Causes behind EJKs?

- ➤ **Public Support:**
  - ○ Sometimes, people support such killings **because they believe the court system won't provide timely justice.** This public support makes the police bolder, leading to an increase in such killings.
- ➤ **Political Support:**
  - ○ Many political leaders believe that **more encounters will serve as their achievement** in maintaining law and order in the state.
- ➤ **Punitive Violence:**
  - ○ Some police officials believe that using violence and torture is the only way to control crim**e and create a sense of fear** among potential criminals.
- ➤ **Hero- Worshiping:**
  - ○ Such Killings are often glorified by the public and media, portraying the police **officers involved as heroes** who are cleaning up society.
  - ○ Amidst all this worship, the public and the media celebrating this unlawful violence forget that the police have no authority to perform such an act, and it is violative of the human rights of the accused.
- ➤ **Inefficiency of Police:**
  - ○ The police may not have enough resources to conduct thorough investigations, leading to low conviction rates. Encounters are seen as an easy way for the police to create a positive image of maintaining law and order in the area.

What are the Guidelines Related to Encounters in India?

- ➤ **Supreme Court:**
  - ○ In September 2014, the SC issued guidelines for investigating police encounters in cases of death,

in the case of *"People's Union for Civil Liberties v State of Maharashtra".* The guidelines included the following,

- ● Registration of a **First Information Report (FIR)** as mandatory, along with provisions for a magisterial inquiry.
- ● Involving the **next of kin of the deceased** in the inquiry.
- ● Keeping written **records of intelligence inputs.**
- ● Investigation to be carried out by an independent agency, such as the CID, to ensure a fair and impartial investigation.
- ● Information about the incident must be sent to the National Human Rights Commission (NHRC) or the State Human Rights Commission, although involvement of the NHRC is not necessary unless there is serious doubt about independent and impartial investigation.
  - ○ These requirements/norms must be strictly observed in all cases of death and grievous injury in police encounters and should be **treated as law declared under Article 141** of the Constitution of India.
- ➤ **NHRC:**
  - ○ **In 1997, the NHRC provided guidelines** for police to register information about encounter deaths, allow independent investigation by the State CID (Central Investigation Department), and grant compensation to the deceased's dependents in case of police officers being convicted.
  - ○ **In 2010, these guidelines were amended** to include registering an FIR, conducting a magisterial inquiry, and reporting all death cases to the NHRC within 48 hours by the Senior Superintendent of Police or Superintendent of Police. After three months, a second report must be sent with the postmortem report, inquest report, and enquiry findings.

Central Government Health Scheme

Why in News?

Recently, the Health Ministry announced that it has **revised the Central Government Health Scheme (CGHS) package rates for all CGHS beneficiaries** and simplified the referral process under CGHS for the benefit of its employees by offering a video call facility.

- ➢ The Central government has increased the CGHS rates of consultation fee for out-patient department (OPD)/in-patient department (IPD) to ₹350 from ₹150. Similarly, ICU charges have been revised to ₹5,400.

What will be the Implications of the Recent Changes Made in CGHS?

- ➢ **Healthcare Costs:**
  - ○ The revision of CGHS package rates, including the **increase in consultation fees, ICU charges, and room rent,** is likely to result in increased healthcare costs for beneficiaries. While the revised rates are aimed at covering the rising costs of healthcare services, the move may affect the affordability of healthcare for some.
- ➢ **Access to Healthcare Services:**
  - ○ The introduction of **the video call referral process is expected to improve access to healthcare services under the CGHS,** particularly for those who find it difficult to visit the Wellness Centre in person. It is also anticipated that this simplified process will enhance the efficiency of the CGHS by reducing delays and inconvenience for beneficiaries.

What is CGHS?

- ➢ **About:**
  - ○ CGHS is a **comprehensive healthcare scheme** provided by the Central **Government to its employees, pensioners, and their dependents.**
  - ○ It was established in 1954 with the aim of providing quality healthcare services to government employees and their families.
- ➢ **Facilities Provided:**
  - ○ **Outpatient department (OPD) treatment at its wellness centres,** which includes the issuance of medicines.

- ○ Specialist consultation at polyclinics, government hospitals, and CGHS enrolled hospitals with a referral from CGHS
- ○ OPD and inpatient treatment at government and enrolled hospitals with **cashless treatment facilities for pensioners and identified beneficiaries** in impanelled hospitals and diagnostic centres
- ○ **Reimbursement for treatment expenses** incurred in government or private hospitals in case of an emergency
- ○ **Reimbursement for expenses** incurred for the **purchase of hearing aids, artificial limbs, and appliance**s after obtaining permission
- ○ Maternity and child health services, family welfare, and medical consultation
- ○ Dispensing of medicines in **Ayurveda, Homeopathy, Unani, and Siddha system of medicines (AYUSH)**
- ➢ **Achievements:**
  - ○ Presently approximately **42 lakh beneficiaries are covered by CGHS in 79 cities all over India** and the endeavor is to include more cities to improve the accessibility of the services.

What are the Government Initiatives Related to Healthcare?

- ➢ **National Health Mission**
- ➢ **Ayushman Bharat**
- ➢ **Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**
- ➢ **PM National Dialysis Programme**
- ➢ **Janani Shishu Suraksha Karyakram (JSSK)**
- ➢ **Rashtriya Bal Swasthya Karyakram (RBSK)**

■■■

Economic Scenario

Highlights

- Common Reporting Standard: OECD
- Small Savings Instruments
- EU Introduces MiCA for Crypto Regulation
- Managing Thermal Stress for Sustainable Livestock Farming
- India's Export Capabilities
- Issues Related to Illegal Mining of Ores
- WTO Panel Rules Against India

Common Reporting Standard: OECD

Why in News?

India is pushing to widen the scope of the **Common Reporting Standard (CRS)** at the **G20 grouping** to include Non-Financial Assets like real estate properties under the **Automatic Exchange of Information (AEOI)** among **OECD (Organisation for Economic Cooperation and Development)** countries.

➤ India currently has AEOI with 108 jurisdictions for receiving financial information and with 79 jurisdictions for sending information automatically.

➤ AEOI provides for the exchange of non-resident financial account information with the tax authorities in the account holder's country of residence. It **reduces the possibility of** tax evasion.

What is the Common Reporting Standard (CRS)?

➤ **About:**
  ○ The CRS was developed in response to the G20 request and approved by the OECD Council on 15th July 2014.
  ○ It calls on **jurisdictions to obtain information from their financial institutions** and automatically exchange that information with **other jurisdictions on an annual basis.**
  ○ It **sets out the financial account information to be exchanged**, the financial institutions required to report, the different types of accounts and

taxpayers covered, as well as **common due diligence procedures** to be followed by financial institutions.

➤ **Current Framework:**
  ○ Presently, the OECD's Automatic Exchange of Information (AEOI) framework provides for sharing of financial account details among signatory countries with an aim to check tax evasion.
    - In August 2022, the OECD also approved the **Crypto-Asset Reporting Framework (CARF)** which provides for the reporting of tax information on transactions in Crypto-Assets in a standardized manner, with a view to automatically exchanging such information.

What is the Need for Broadening the Scope of AEIO?

➤ There is a need to broaden the scope of AEOI so that the information could be used not only to check tax evasion, but also for other **non-tax law enforcing purposes.**

➤ The risks are not only in the Financial Assets, but also there is a risk of tax evasion in Non-Financial Assets such as real Estate and properties, therefore expansion of CRS from **financial to other non-financial accounts is important.**
  ○ As per the OECD's Tax Transparency report, amid the current geopolitical and debt crisis, there is a need to check tax evasion and illicit financial flows, especially by Asian nations which are estimated to have lost Euro 25 billion in revenue in 2016.
  ○ Quoting a study, the OECD report said 4 % of Asia's financial wealth amounting to Euro 1.2 trillion was held offshore, leading to a potential annual revenue loss of Euro 25 billion for the region in 2016.

What are the Efforts to Manage Tax Evasion?
- ➢ **Global:**
  - ❍ **Base Erosion and Profit Shifting (BEPS)**
  - ❍ **OECD's Inclusive Framework's Statement.**
  - ❍ **Double Taxation Avoidance Agreements (DTAAs)**
- ➢ **Indian:**
  - ❍ **The Fugitive Economic Offenders Act, 2018**
  - ❍ **The Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015**
  - ❍ **Prevention of Money Laundering Act, 2002.**

Small Savings Instruments

Why in News?

Despite successive hikes in interest rates on several **small savings instruments (SSIs)** in the last three quarters, the returns on **some of such schemes are still significantly lower** than what they should have fetched (as per calculations released by the **Reserve Bank of India (RBI)**).

What are Small Savings Instruments?

- ➢ **About:**
  - ❍ Small savings instruments **help individuals achieve their financial goals over a particular period.**
  - ❍ They are the **major source of household savings** in India.
  - ❍ Collections from all small savings instruments are credited to the **National Small Savings Fund (NSSF).**
- ➢ **Classification:**
  - ❍ The small savings instrument basket **comprises 12 instruments** which can be classified into three categories:
    - ● **Postal Deposits:** (comprising savings account, recurring deposits, time deposits of varying maturities and monthly income scheme).
    - ● **Savings Certificates:** National Small Savings Certificate (NSC) and Kisan Vikas Patra (KVP).
    - ● **Social Security Schemes: Sukanya Samriddhi Scheme**, Public Provident Fund (PPF) and Senior Citizens 'Savings Scheme (SCSS).
- ➢ **Rates of Small Saving Instruments:**
  - ❍ The rates for small saving instruments are **announced quarterly.**

- ❍ Theoretically, it **is based on yields of G-Secs of corresponding maturity** but political factors also influence the rate change.
- ❍ The **Shyamala Gopinath panel (2010)** constituted on the Small Saving (SS) Scheme had suggested a **market-linked interest rate system for SS Schemes.**
- ➢ **Formula for Small Savings Rates:**
  - ❍ It is **used to calculate the interest rates for various SSIs** in India and is based on the **average quarterly yields on G-Secs** in the first 3 of the preceding 4 months.
    - ● The formula is used to **decide how much interest to pay to savers who invest in SS schemes.**

What are the Few Important Small Savings Schemes?

- ➢ **Sukanya Samriddhi Account Scheme:**
  - ❍ Aims to **promote the welfare of girl children in India.**
  - ❍ Parents or legal guardians can open deposits for **up to two daughters aged below 10,** and **in the case of twin girls or three girl children,** the scheme allows three accounts to be opened.
  - ❍ **Minimum initial deposit - Rs 250; Maximum annual ceiling - Rs 150,000.**
  - ❍ Deposits can be made for a maximum of **15 years;** account matures on completion of **21 years from the date of opening or on the marriage of the account holder,** whichever is earlier.
- ➢ **Senior Citizens' Savings Scheme:**
  - ❍ To provide **senior citizens in the country a regular source of income after they turn 60 years old.**
  - ❍ Eligibility -
    - ● **Indian citizens above 60 years of age**
    - ● Retirees in the age of 55-60 years who have opted for a **Voluntary Retirement Scheme (VRS)** or Superannuation
    - ● **Retired defense personnel between 50-60 years of age.**
  - ❍ **Maturity period of five years,** which can be extended for **another three years.**
  - ❍ **Minimum deposit - Rs. 1,000;** Maximum deposit **limit increased to Rs. 30 lakhs in the Union Budget 2023-24.**

Note:

○ **Premature withdrawal is allowed after one year of opening the account.**

○ Deposits in SCSS also qualify for **deduction under Section 80-C of the Income Tax Act.**

➤ **Monthly Income Scheme:**

○ Allows monthly investments by **Indian residents above the age of 10 years**. 1-3 individuals can hold the account jointly.

○ **Has a 5-year lock-in period with premature withdrawal** allowed after one year with a penalty.

○ Maximum deposit limit enhanced in Union Budget 23-24 **to Rs 9 lakh (for single account)** and **Rs 15 lakh (for joint account).**

  ● Any income from the scheme is not subject to TDS or tax deductions.

○ **NRIs not eligible to invest in this scheme.**

○ Account is **transferable from one post office to another**.

➤ **Public Provident Fund (PPF):**

○ Encourages **individuals to save for their retirement.**

○ **Has a tenure of 15 years,** extendable to **an additional 5 years after maturity.**

○ Minimum annual investment required to keep a PPF account active - **Rs. 500;** Maximum investment limit - **Rs. 1.5 lakh per FY.**

➤ **Kisan Vikas Patra (KVP)**:

○ Governed by the **Government Savings Certificates Act 1959** (an SSI offered by **India Post**).

○ Originally launched in 1988 and relaunched in 2014.

○ Available to resident Indians and trusts.

○ Tenure - **124 months, but not fixed.**

○ **Minimum** investment amount - **Rs. 1,000; No upper limit.**

○ Interest rate reviewed by the government **every quarter.**

➤ **Mahlia Samman Savings Certificate:**

○ A one-time new small savings scheme for women or girls

○ Available for a **two-year period up to March 2025**

○ **Deposit facility up to Rs 2 lakh** (fixed interest rate of 7.5%)

○ **Partial withdrawal option**

EU Introduces MiCA for Crypto Regulation

Why in News?

Recently, the **European Parliament has approved the Markets in Crypto Assets (MiCA)** regulation, the world's first comprehensive set of rules that aims to bring largely **unregulated cryptocurrency markets under government regulation.**

➤ The regulation will **come into force after formal approval by member states.**

➤ The European Parliament is the legislative body of the **European Union**

What is MiCA?

➤ **About:**

○ MiCA will bring **governance practices to crypto firms.** By regulating the crypto industry, MiCA can prevent financial sector-like routs and contagions that could affect the wider economy.

  ● "Rout" means when **people sell cryptocurrency in a panic,** causing **prices to fall sharply.**

  ● "Contagion" means the **danger of a collapse in one market affecting other markets**, financial institutions, and the overall economy.

○ The **regulation prescribes different sets of requirements for crypto asset service providers (CASPs) depending on the type of crypto assets.**

➤ **Assets Covered under MiCA:**

○ The MiCA legislation will apply to crypto assets, which are broadly defined as "a **digital representation of a value** or a **right that uses cryptography** for **security and is in the form of a coin or a token** or any other digital medium which may be **transferred and stored electronically,** using **distributed ledger technology or similar technology".**

○ This definition implies that it will apply not only to traditional cryptocurrencies like **Bitcoin and Ethereum** but also to newer ones like **stablecoins.**

  ● MiCA will also establish new rules for three types of stablecoins.

➤ **Assets Out of MiCA's Scope:**

○ MiCA will **not regulate digital assets** that would **qualify as transferable securities and function**

Note:

like shares or their equivalent and other crypto assets that already **qualify as financial instruments under existing regulation.**

- ❍ It will also exclude **nonfungible tokens (NFTs).**
- ❍ MiCA will also **not regulate central bank digital currencies** issued by the **European Central Bank** and digital assets issued by **national central banks of EU member countries** when acting in their capacity as monetary authorities, along with crypto assets-related services offered by them.

➤ **New Rules under MiCA:**
- ❍ **Regulation of CASPs:**
  - CASPs must be **incorporated as a legal entity in the EU.**
  - They can get authorized in any **one 1mber country and operate across all 27 countries.**

➤ Regulators such as the **European Banking Authority** will supervise CASPs.

➤ CASPs must demonstrate **stability, soundness, and ability to keep user funds safe.**

➤ CASPs must be able to **defend against market abuse and manipulation.**
- ❍ **White Paper Requirements for Stablecoin Service Providers:**
  - Stablecoin service providers must provide a **white paper with key information about the crypto product** and the main participants in the company, the terms of the offer to the public, the type of blockchain verification mechanism they use, the rights attached to the crypto assets in question, the **key risks involved for the investors**, and **a summary to help potential purchasers** make an informed decision regarding their investment.
- ❍ **Reserve Requirements for Stablecoin Issuers:**
  - Issuers of stablecoins will be required to **maintain sufficient reserves corresponding to their value to avoid liquidity crises.**
  - Insufficient reserves can have significant implications for **users of stablecoins and can result in significant losses.**
- ❍ **Transaction Limits for Stablecoin Firms (Non-Euro Currencies):**
  - Stablecoin firms pegged to non-euro currencies will have to **cap their transactions at a daily volume of €200 million ($220 million)** in a specified region.

- The transaction limit is intended to **manage the risks associated with stablecoins** and their impact on financial stability.
- ❍ **Anti-money Laundering Measures for Crypto Companies:**
  - Crypto companies must send information about senders and recipients of crypto assets to their **local anti-money laundering authority**, to prevent **money laundering and terror financing activities.**
  - Failure to comply with anti-money laundering requirements can have significant legal and reputational implications for crypto companies.

➤ **Need for Such a Law:**
- ❍ About **22% of the global crypto industry is concentrated in central, northern, and western Europe** ($1.3 trillion worth of crypto assets); having a comprehensive framework like MiCA will **give the EU a competitive edge in its growth compared to the US or UK** which lack regulatory clarity.
- ❍ Increasing investments and the size of the crypto industry have led policymakers worldwide to feel the need to **bring governance practices in crypto firms to ensure stability.**

➤ **Importance:**
- ❍ It will protect **consumers against deception and fraud,** regaining their trust in the sector that was damaged by the FTX collapse.
- ❍ It will bring **compliance to the issuers of crypto-assets and CASPs.**

Where does India Stand in terms of Regulating Cryptocurrency?

➤ **India is yet to have a comprehensive regulatory framework** for crypto assets; however, a draft legislation on the same is reportedly in the works.

➤ In 2017, the **RBI** issued a warning that virtual currencies/cryptocurrencies are not legal tender in India.
- ❍ However, no ban on virtual currencies took place.
  - In 2019, RBI issued that trading, mining, holding, or transferring/use of cryptocurrencies is subject to punishment in India with a financial penalty or/and imprisonment up to 10 years.
- ❍ In 2020, the **Supreme Court of India** removed the ban on cryptocurrencies imposed by RBI.

➤ In 2022, the Government of India clearly mentioned in the **Union budget 2022-23** **transfer of any virtual**

Note:

currency/cryptocurrency asset will be subject to 30% tax deduction.

○ In July 2022, the RBI recommended a ban on cryptocurrencies citing 'destabilizing effects' for the country's monetary and fiscal health.

○ India launched its **Central Bank Digital Currency (CBDC) or e-rupee in December 2022. It is still in its pilot phase.**

➤ **The Govt** has also set up a panel to explore the **potential use of blockchain technology** and the possibility of issuing a **Central Bank Digital Currency (CBDC).**

○ More recently, the Union Ministry of Finance, through a gazette notification, has brought **Virtual Digital Assets (VDA)** or the **Crypto Currency under PMLA.**

Managing Thermal Stress for Sustainable Livestock Farming

Why in News?

Thermal stress poses a serious threat to **Sustainable Livestock Farming** in Kerala.

➤ In Kerala more than **95% of the cattle are crossbreeds with low thermal tolerance** compared with native Varieties. Kerala Veterinary and Animal Sciences University (KVASU) has started a project for selecting cattle in the context of climate change to cope with Thermal Stress.

What is Thermal Stress and its Impact on Livestock?

➤ **About:**

○ Thermal stress refers to the **physiological and metabolic responses** of animals to elevated temperatures that exceed their comfort zone.

○ It occurs when the **animal's body is unable to maintain its normal internal temperature**, and it results in a range of negative effects on the animal's health and productivity.

➤ **Causes:**

○ Thermal stress can be caused by a variety of factors such as **high ambient temperature, humidity, solar radiation, and lack of proper ventilation** or cooling mechanisms.

● It is a significant concern in livestock farming as it can have **severe economic and animal welfare consequences.**

➤ **Impact of Thermal Stress:**

○ **Reduced Productivity:** High levels of thermal stress can cause **a decline in milk production, decreased feed intake,** and **weight loss** in livestock animals. This can lead to a reduction in productivity and income for farmers.

○ **Health Issues:** It can cause various health issues in livestock animals, including **respiratory distress, heat stroke, and dehydration.**

● This can lead to **increased susceptibility to diseases,** lower immunity, and reduced lifespan.

○ **Economic Losses:** Livestock farmers may face significant economic losses due to thermal stress and consequent health issues and high mortality rates.

● Farmers may **also have to incur additional costs to provide their animals with cooling mechanisms,** such as fans or sprinklers.

○ **Environmental Impact:** In order to mitigate the effects of thermal stress, farmers may have to **resort to unsustainable practices such as the excessive use of water for cooling,** which can have a negative impact on the environment.

How can Livestock be Prevented from Heat Stress?

➤ **Breeding Management:**

○ A good heat detection program is necessary to detect cows with marginal heat symptoms as cows exhibit lesser heat symptoms during heat stress.

○ It is always advisable to **continue AI (Artificial Insemination) breeding** instead of using bulls because in natural breeding both bulls and cows suffer infertility due to summer stress.

➤ **Cooling Systems:**

○ Fans in combination with water sprinkling facility can be **provided but excessive sprinkling should be avoided** as it can result in wet bedding and make animals prone to **mastitis** and other diseases. The farm should be well ventilated.

➤ **Feeding Management:**

○ Thermal stressed animals are more prone to lower **reproductive and productive performance**.

Note:

What is the Scenario of the Livestock Sector in India?

➢ The livestock sector grew at a **CAGR (Compound Annual Growth Rate)** of 7.9 % during 2014-15 to 2020- 21 (at constant prices), and its contribution to total agriculture GVA (Gross value added) has increased from 24.3 % in 2014-15 to 30.1 % in 2020-21.

  ○ **Dairy** is the single-largest agri commodity in India. It **contributes 5% to the national economy** and employs 80 million dairy farmers directly.

What are the Initiatives Related to Livestock Sector?

➢ **Rashtriya Gokul Mission**
➢ **Animal Husbandry Infrastructure Development Fund (AHIDF)**
➢ **National Animal Disease Control Programme**
➢ **National Artificial Insemination Programme**
➢ **National Livestock Mission**

  ○ Feeding **high quality forages and balanced rations can decrease some of the effects of thermal stress** and boost animal performance.

➢ **Selection of Heat Tolerant Animals:**
  ○ Genetic selection of animals based on specific molecular genetic markers for heat tolerance **can be a boon to alleviate heat stress in cattle** and buffaloes by identifying the heat tolerant animals.

India's Export Capabilities

Why in News?

Jamnagar in Gujarat is the top **exporting district in India**. It formed about **24% of India's exports in value terms in FY23** (till January).

➢ **Surat in Gujarat and Mumbai Suburban in Maharashtra** feature second and third by a distance, forming only about 4.5% of the country's exports in the period.

➢ The other districts in the **top 10 are Dakshina Kannada (Karnataka), Devbhumi Dwarka, Bharuch and Kachchh (Gujarat), Mumbai (Maharashtra), Kancheepuram (Tamil Nadu) and Gautam Buddha Nagar (Uttar Pradesh).**

Export hubs

The data for the maps and the table was sourced from the export import dashboard maintained by the Ministry of Commerce. All the data pertains to the year FY 2022-23 (until January)

MAP 1

Jaipur Precious stones & jewellery
Begusarai Petroleum products
Jamnagar Petroleum products
Indore Medicaments
Raipur Rice
Jharsuguda Aluminium
Mumbai Suburban Precious stones & jewellery
East Godavari Ships & boats
Dakshina Kannada Petroleum products
Kancheepuram Smartphones
Ernakulam

Table 3

Commodity	District	State	Share
Petroleum products	Jamnagar	Gujarat	67%
Precious stones & jewellery	Surat	Gujarat	36%
Smartphones, electronic parts	Gautam Buddha Nagar	Uttar Pradesh	26%
Vehicles	Kancheepuram	Tamil Nadu	21%
Rice, wheat & other cereals	Karnal	Haryana	17%
Pharmaceutical products	Medchal Malkajgiri	Telangana	15%

Note:

What is the Status of the Export Sector in India?

➢ **Status of Trade:**
  ○ The **merchandise trade deficit**, which is the gap between exports and imports, increased by over **39% in 2022-23** to record USD 266.78 billion, as compared to **USD 191 billion in 2021-22.**
  ○ Merchandise imports increased by **16.51% in 2022-23,** while merchandise exports rose by 6.03%.
    ● Overall trade deficit, however, stood at **USD 122 billion in 2022-23, as compared to USD 83.53 billion** in the 2022, **gaining support from trade surplus in services.**

EXPORT DATA

FY 2021-22
FY 2022-23   Growth (%)

Figures in $ bn

	Merchandise	Services*
FY 2021-22	422.00	254.53
FY 2022-23	447.46	322.72
Growth	6.03%	26.79%

*Data for services sector released by RBI is for Feb 2023. Data for March 2023 is estimation. Source: Ministry of Commerce & Industry
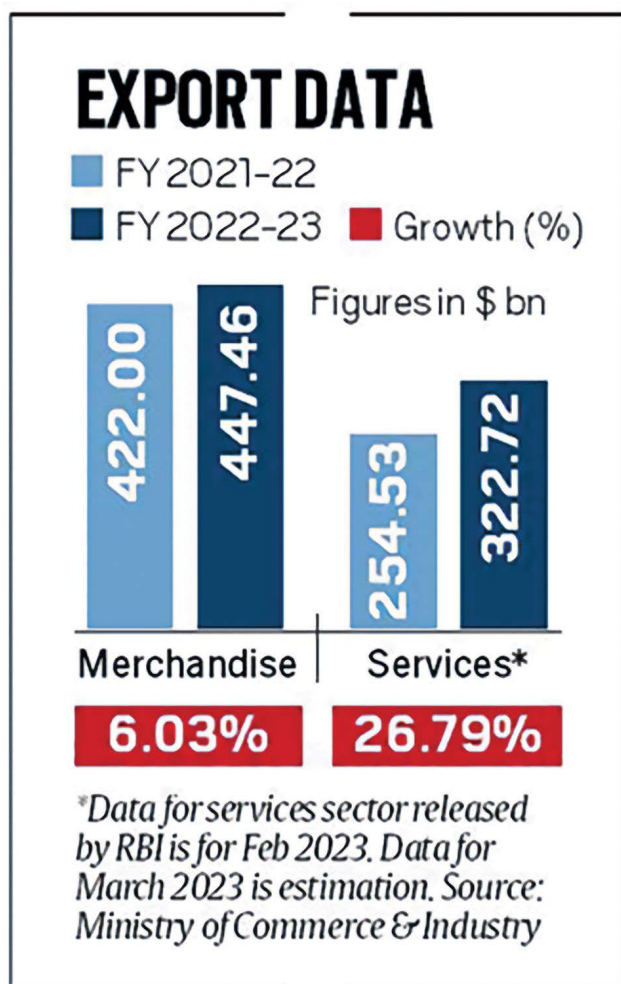
➢ **India's Major Export Arenas:**
  ○ **Engineering Goods:** They **registered a 50% growth in exports,** at USD **101 bn in FY22.**
    ● Currently**, all pumps, tools, carbides, air compressors, engines, and generators**

manufacturing MNC companie**s** in India are trading at all-time highs and shifting more production units to India.
  ○ **Agriculture Products:** Agricultural exports were buoyed by the government's push to meet global demand for food amid the pandemic. **India exports rice worth USD 9.65 bn,** the highest among agricultural commodities.
  ○ **Textile and Apparels**: India's **textile and apparel exports** (including handicrafts) stood at **USD 44.4 billion in FY22, a 41% increase on a YoY basis.**
    ● Government's scheme like **Mega Integrated Textile Region and Apparel (MITRA) Park** are giving a strong boost to this sector.
  ○ **Pharmaceuticals and Drugs**: India is the **third-largest producer of medicines** by volume and the biggest supplier of generic drugs.
  ○ **India supplies over 50% of Africa's requirement for generics,** around 40% of generic demand in the US and 25% of all medicine in the UK.

➢ **Challenges Related to Export Sector:**
  ○ **Access to Finance:** Access to affordable and timely finance is crucial for exporters.
    ● However, many **Indian exporters face challenges in obtaining finance due to high interest rates**, collateral requirements, and lack of credit availability from financial institutions, **particularly for small and medium-sized enterprises (SMEs).**
  ○ **Limited Diversification of Exports:** India's export **basket is concentrated** in a few sectors, such as **engineering goods, textiles and pharmaceuticals,** which makes it vulnerable to global demand fluctuations and market risks.
    ● Limited diversification of exports poses a challenge to India's export sector as it can **limit its resilience to changing global trade dynamics.**
  ○ **Rising Protectionism and Deglobalisation:** Countries around the globe are moving towards protectionist trade policies due to disrupted global political order (**Russia-Ukraine War) and weaponization of supply chain**, that is in way shrinking India's export capacities.

Note:

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Issues Related to Illegal Mining of Ores

Why in News?

Recently, the **Indian Bureau of Mines (IBM)** has flagged massive corruption of illegal mining and transportation of Manganese in Odisha.

➢ IBM is a multi-disciplinary government organization **under the Ministry of Mines,** engaged in promotion of conservation, scientific development of mineral resources and protection of the environment in mines other than **coal**, **petroleum & natural gas**, **atomic minerals** and minor minerals.

What are IBM's Concerns?

➢ Odisha is a **mineral-rich State having 96.12% of the country's chrome ore, 51.15% bauxite reserve of India**, 33.61% of hematite iron ore and 43.64% of manganese.

❍ Mining lease holders in Odisha **were dispatching manganese ore as low-grade from their mines to the traders** operating from West Bengal, who subsequently sold it as high-grade without any processing.

❍ Some mining companies in Odisha are involved in under-reporting the quantity of minerals mined and transported, as well as not paying the **appropriate royalties and taxes.**

● Such issues can have serious consequences for the environment, the economy, and the livelihoods of people who depend on natural resources for their sustenance.

❍ The issue of manganese ore grade reduction is significant as it may affect the **quality and value of the ore, resulting in a loss of revenue** for the state government.

❍ The state government should **take action against the companies involved in illegal mining and transportation of minerals,** and also called for stricter enforcement of mining laws and regulations.

● As per **Section 23C of Mines & Minerals (Development and Regulation) (MMDR) Act,**

State Governments are empowered to make rules for preventing illegal mining, transportation and storage of minerals.

What is Illegal Mining?

➢ **About:**

❍ Illegal mining is the extraction of minerals, ores, or other valuable resources from land or water bodies **without the necessary permits, licenses, or regulatory approvals** from government authorities.

❍ It can also involve the violation of environmental, labor, and safety standards.

➢ **Issues:**

❍ **Environmental Degradation:**

● It can lead to deforestation, soil erosion, and water pollution and can result in the **destruction of habitats for wildlife**, which can have serious ecological consequences.

➢ **Hazards:**

❍ Illegal mining often involves the u**se of hazardous chemicals such as mercury and cyanide**, which can pose serious **health risks to miners** and nearby communities.

➢ **Loss of Revenue:**

❍ It can lead to a **loss of revenue for governments** as miners may not pay appropriate taxes and royalties.

❍ This can have significant economic impacts, particularly in countries where natural resources are a major source of revenue.

➢ **Human Rights Violations:**

❍ Illegal mining can also result in **human rights violations,** including forced labor, child labor, and exploitation of vulnerable populations.

What are the Laws Related to Mining in India?

➢ The entry at serial **No. 23 of List II (State List) to the Constitution of India** mandates the **state government to own the minerals located within their boundaries.**

➢ The entry at serial **No. 54 of List I (Central List)** mandate the central government to own the minerals within the exclusive economic zone of India (EEZ).

❍ In pursuance to this **Mines & Minerals (Development and Regulation) (MMDR) Act of 1957** was framed.

➢ **International Seabed Authority (ISA)** regulates mineral exploration and extraction of deep seabed minerals

Note:

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in the international seabed area that are beyond the limits of national jurisdiction.

○ It is guided by the **UN treaty and India being a party to the treaty has received an exclusive right to explore polymetallic nodules** over 75000 sq. km in **Central Indian Ocean Basin.**
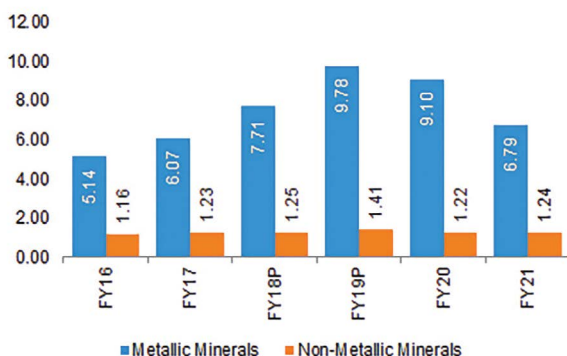
What is the Scenario of the Mining Sector in India?

➢ **About:**

○ India has a ri**ch mineral resource** base, with large deposits of iron ore, coal, bauxite, Manganese, copper, gold, zinc, lead, and other minerals.

○ The mining sector is a significant contributor to the Indian economy, accounting for **around 2.5% of India's GDP (Gross Domestic Product)** and providing employment to millions of people.

➢ **Statistics:**

○ **Coal production** in India stood at 777.31 million tonnes (MT) in FY 2021-22 with a **growth of 8.55%.**

● India is the world's **2nd largest coal producer** as of 2021.

○ **Mineral Production** in India in FY22 is estimated to be Rs. 190,392 crore (USD 24.95 billion).

○ India ranks **4th globally in terms of iron ore production**. Production of iron ore in FY21 stood at 204.48 MT.

○ The combined production (primary and secondary) of aluminum in India stood at 4.1 MT per annum in FY21, making it the **world's 2nd producer of aluminum.**

Production of metallic and non-metallic minerals (US$ billion)

	Metallic Minerals	Non-Metallic Minerals
FY16	5.14	1.16
FY17	6.07	1.23
FY18P	7.71	1.25
FY19P	9.78	1.41
FY20	9.10	1.22
FY21	6.79	1.24

Some Facts About Manganese

➢ It is a hard, silvery-grey metal that is commonly found in the Earth's crust, and it is the t**welfth most abundant element in the crust.**

➢ Manganese is an essential nutrient for humans, animals, and plants. It is required for the metabolism of carbohydrates, cholesterol, and amino acids.

➢ Manganese is used in a wide range of industrial applications, including the production of steel, aluminum alloys, and batteries.

➢ **Manganese** is an important **raw material** for **smelting iron ore** and also used for manufacturing **ferro alloys.** Manganese deposits are found in almost all geological formations. However, it is mainly associated with **Dharwar system.**

➢ **Odisha** is the leading producer of **Manganese.** Major mines in Odisha are located in the central part of the **iron ore belt of India**, particularly in **Bonai, Kendujhar, Sundergarh, Gangpur, Koraput, Kalahandi and Bolangir.**

How can the Issues of Illegal Mining be Addressed?

➢ **Legal and Regulatory Framework:**

○ The legal and regulatory framework related to mining should be strengthened to make it **more effective in preventing illegal mining**.

○ It can be achieved by enacting **stronger laws, improving enforcement mechanisms**, and increasing penalties for illegal mining activities.

➢ **Monitoring and Surveillance:**

○ The use of modern technologies such as **satellite imagery, drones, and GPS can help in monitoring** and detecting illegal mining activities.

➢ **Collaboration between Stakeholders:**

○ Mining companies should work closely with local communities to address their concerns and ensure that their activities are sustainable.

➢ **Awareness and Education:**

○ Awareness and education campaigns can help in creating awareness about the harmful effects of illegal mining on the environment and society. This will encourage **people to report illegal mining activities t**o the authorities.

➢ **Sustainable Mining Practices:**

○ Promoting sustainable mining practices can help in **reducing the demand for illegal mining.**

Note:

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○ This includes encouraging mining companies to adopt sustainable practices such as responsible mineral sourcing, environmental conservation, and social responsibility.

> **What are Government Initiatives Related to Mining?**
>
> ➢ **National Mineral Policy 2019:** It aims to **increase mineral exploration and production, promote sustainable** mining practices, and streamline regulatory processes.
>   ○ **Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY):** It is a welfare scheme for mining-affected areas, and the Sagarmala project, which aims to develop port infrastructure to support the growth of the mining sector.

WTO Panel Rules Against India

Why in News?

Recently, a **World Trade Organization (WTO)** Panel has ruled against India in a dispute over **information technology (IT) tariffs** with the **European Union (EU)** and other countries.

What are the Key Highlights?

➢ **Background:**
  ○ India has been **looking to promote domestic IT manufacturing and reduce its dependence on imports,** but this approach has been challenged by the **EU** and other countries, who argue that **such measures are Protectionist** and violate Global Trade Rules.
  ○ In 2019, the EU challenged India's introduction of **import duties of between 7.5% and 20% for a wide range of IT products**, such as mobile phones and components, as well as integrated circuits, saying they exceeded the maximum rate.
  ○ Japan and Taiwan also complained the same.

➢ **Ruling:**
  ○ The panel found that **India's tariffs on certain IT products violated global trading rules**, as they were inconsistent with the terms of the **Information Technology Agreement (ITA).**

● The ITA is a global trade agreement that aims to eliminate tariffs on a wide range of IT products. India is signatory to the 1996 ITA.
  ○ The ruling has highlighted the **need for India to align its trade policies with global norms** and obligations.
  ○ It also underscores the challenges that developing countries like India face in balancing their domestic policy objectives with their international trade commitments.

➢ **India's Argument:**
  ○ India argued that at the time of signing the ITA, products such as smartphones **did not exist and hence, it was not bound to eliminate tariffs** on such items.

➢ **Implications:**
  ○ According to the European Commission, the **EU is India's third-largest trading partner**, accounting for 10.8% of total Indian trade in 2021.
  ○ The WTO ruling against India may have significant implications for trade relations between I**ndia and the EU, as well as Japan and Taiwan**.
  ○ India may be required to **lower or eliminate the import duties that were challenged by the EU** and other countries. This could have an impact on **India's domestic manufacturing sector**, which has been protected by such tariffs.

What Options does India have after the WTO ruling?

➢ India has a choice to appeal against the WTO ruling over IT tariffs, but if India Appeals the case **will be held in Legal Purgatory.**

➢ This is because the WTO's top **appeals bench is no longer functioning** due to the US opposition to judge appointments.
  ○ Legal purgatory is used to describe a situation where **a legal case or dispute is in a state of limbo,** without resolution or a clear path forward.
  ○ This situation can be particularly challenging for countries that are seeking to resolve trade disputes in a transparent and rules-based manner, as it undermines the **effectiveness of the WTO's dispute settlement mechanism.**

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What is the World Trade Organization (WTO)?

➢ **About:**

○ It came into being in 1995. The WTO is the successor to the **General Agreement on Tariffs and Trade (GATT)** established in the wake of the Second **World War.**

● Its objective is to help trade flow smoothly, freely and predictably.

● It has 164 members, accounting for 98% of world trade.
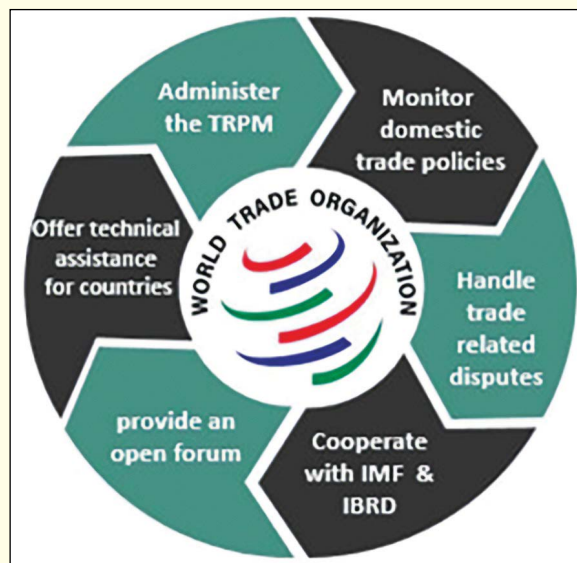
○ It was developed through a series of trade negotiations, or rounds, held under the GATT.

● GATT is a set of multilateral trade agreements aimed at the abolition of quotas and the reduction of tariff duties among the contracting nations.

● The WTO's rules – the agreements – are the result of negotiations between the members.

■ The current set is largely the outcome of the 1986- 94 Uruguay Round negotiations, which included a major revision of the original GATT.

○ The WTO Secretariat is based in Geneva (Switzerland).

➢ **WTO Ministerial Conference:**

○ It is the WTO's top decision-making body and usually meets every two years.

○ All members of the WTO are involved in the MC, and they can take decisions on all matters covered under any multilateral trade agreements.

➢ **Concerns:**

○ **WTO's** top Appeals Officials are no longer functioning because of the US opposition to judge appointments.

○ The current situation highlights the challenges that the WTO faces in resolving trade disputes in the current global context, where **countries are increasingly adopting protectionist measure**s and challenging the rules-based international trading system.

Note:

International Relations

Highlights

- NET Zero Innovation Virtual Centre
- India and EFTA
- Armenian Genocide
- Sudan Crisis and Operation Kaveri
- IMF and World Bank Group's Spring Meetings 2023
- China's Outreach in Central Asia
- India-Thailand Relations

- Hope for Peace in Yemen
- India-UAE Food Security Partnership
- Russia-India Bilateral Trade
- Ongoing Issues in Myanmar
- Chinese Dual-Use Facilities Raise Security Concerns in India
- G7's Commitment Towards Carbon-free Electricity Production

NET Zero Innovation Virtual Centre

Why in News?

In the recent **India-UK Science & Innovation Council meeting**, **India and the United Kingdom** announced the establishment of a '**NET Zero' Innovation Virtual Centre** aimed at addressing **climate change and environmental targets.**

What is the NET Zero Innovation Virtual Centre?

➢ It is a joint initiative of **India and the UK to enhance their cooperation on science and technology, especially on climate change and environmental issues.**

➢ It will provide a platform to bring stakeholders from both countries together to work on some of the focus areas such as the **decarbonization of manufacturing process** and **transport systems, and green hydrogen as a renewable source.**

➢ It will support the **goal of achieving net zero emissions** balancing the amount of **greenhouse gases** emitted and removed from the atmosphere.

➢ It will also facilitate knowledge **exchange, innovation, research and development, capacity building, and policy dialogue between** the two countries.

What are the Key Highlights from the Meeting?

➢ **India-UK Science and Technology Cooperation**:

○ The UK has emerged as **India's 2nd largest international research and innovation partner.**

○ The joint research program between India and the UK has **grown from almost zero to close to £300-400 million.**

➢ **India's Economic and Technological Capabilities:**

○ India is fast moving to become an **economic powerhouse** driven by its extraordinary **technological and innovative capabilities**, especially after the **Covid vaccine success story**.

○ Energy efficiency and renewable energy are central pillars where India has already taken the lead through various initiatives like the **India Solar Alliance** and **Clean Energy Mission**.

○ India is committed to achieving ambitious **net-zero targets through consistent efforts** towards developing mitigation and monitoring solutions for **environmental pollution and techno-based** pathways for reducing **carbon emissions.**

➢ **Industry-Academia Collaboration:**

○ The cooperation will provide an opportunity for Indian and UK academia and industry **to develop newer products/processes together for the economic growth of both nations.**

India and EFTA

Why in News?

In a recent meeting held in New Delhi, **India and the four European countries that form the European Free**

Note:

Trade Association (EFTA) have expressed their willingness to resume their negotiations for a **Trade and Economic Partnership Agreement (TEPA)** that has been stalled since 2018.

➤ The TEPA aims to boost bilateral trade and economic cooperation between the two regions by reducing tariffs and non-tariff barriers, enhancing market access, and promoting investment flows.

What is EFTA?

➤ EFTA is an intergovernmental organization that was established in 1960 as an alternative trade bloc for those **European states that were unable or unwilling to join the European Union (EU).**

   ○ EFTA comprises **Iceland, Liechtenstein, Norway, and Switzerland,** which are not part of the EU but have access to its single market through various agreements.

➤ **EFTA is India's 9th largest trading partner**, accounting for about 2.5% of India's total merchandise trade in 2020-21.

   ○ The main items of India's exports to EFTA are **textiles, chemicals, gems, and jewelry, machinery, and pharmaceuticals.**

   ○ The main items of India's imports from EFTA are **machinery, chemicals, precious metals, and medical instruments.**

European Free Trade Association

What is TEPA?

➤ **Objective:**

   ○ The TEPA aims to **create opportunities for trade and investment between India and EFTA by** eliminating/reducing tariffs and non-tariff barriers on a wide range of products.

How are India's Relations with EFTA Countries?

➤ **India and Switzerland Relations:**

   ○ An i**nter-governmental framework agreement on technical and scientific cooperation** was signed, leading to the launch of the **Indo-Swiss Joint Research Programme**

   ○ **Skill training collaboration** between both countries is facilitated through institutes such as the Bharatiya Skill Development Campus and University, Indo-Swiss Centre of Excellence in Pune, and the Vocational Training Center in Andhra Pradesh.

   ○ Switzerland is the **12th largest investor in India,** accounting for 1.07% of total FDI in India from **April 2000 to September 2019.**

➤ **India and Norway Relations:**

   ○ The India-Norway Task Force on **Blue Economy for Sustainable Development** was inaugurated in 2020.

   ○ More than 100 Norwegian companies have established themselves in India.

   ○ The **Norwegian Pension Fund Global** is one of India's largest single foreign investors.

   ○ **Academic collaborations** exist between the Indian Institute of Technology-Madras and the Institute of Wind Energy in Chennai with institutions in Norway.

   ○ The Norwegian company, **Piql, was involved in creating a digital archive for Indian monuments.**

➤ **India and Iceland Relations:**

   ○ India and Iceland established diplomatic relations in 1972 and have strengthened their ties since 2005 with **high-level visits and exchanges.**

   ○ India and Iceland share common values of **democracy**, rule of law, and **multilateralism.**

   ○ Iceland supports **India's candidature for a permanent seat** at the **UN Security Council.**

   ○ India and Iceland cooperate in **trade, renewable energy, science and technology, education, culture, and development.**

   ○ Several agreements have been signed between the two countries to facilitate economic cooperation, such as a **Double Taxation Avoidance Agreement.**

Note:

- ➢ **India and Liechtenstein Relations:**
  - ○ The two countries have friendly relations based on mutual respect and cooperation.
  - ○ The bilateral trade between the two countries is modest, amounting to US$ 1.59 million in 2016-17.
  - ○ The two countries have exchanged **high-level visits to strengthen their ties.**
  - ○ The two countries have signed agreements to facilitate economic cooperation, such as a Double Taxation Avoidance Agreement.
  - ○ **Liechtenstein supports India's candidature for a permanent seat at the UNSC.**
  - ○ It aims to ensure **fair and transparent market access conditions for service providers and investors** and will **enhance cooperation on intellectual property rights** protection and enforcement.
  - ○ TEPA aims to facilitate **trade procedures and customs cooperation** along with effective mechanisms for **dispute resolution.**
- ➢ **Coverage:**
  - ○ The TEPA is a comprehensive agreement that covers **trade in goods, trade in services, investment, intellectual property rights, competition, government procurement, trade facilitation, trade remedies, dispute settlement, and other areas of mutual interest.**
- ➢ **Recent Highlights:**
  - ○ Participants acknowledged challenges posed by **global economic and trade environment.**
  - ○ Participants agreed to address **bilateral trade and economic partnership issues in a constructive and pragmatic manner.**
  - ○ India proposed to **include talks on gender equality and women empowerment in TEPA negotiations.**
  - ○ India committed to **promote social development along with economic growth.**

Armenian Genocide

Why in News?

    April 24, 1915 marks the beginning of what came to be known as the **Armenian genocide.** It is when the **Ottoman Empire (modern-day Turkey)** initiated the detainment of **Armenian intellectuals and leaders in Constantinople.**

What is Genocide?

- ➢ **Origin:**
  - ○ The word **'genocide'** was first coined by **Polish lawyer Raphäel Lemkin** in **1944** in his book **Axis Rule in Occupied Europe**.
- ➢ **About:**
  - ○ **As per UN,** Genocide is the intentional and systematic destruction of a **particular ethnic, racial, religious, or national group.**
  - ○ This destruction can occur through a variety of means, **including mass killing, forced relocation, and the imposition of harsh living conditions** that result in widespread death.
- ➢ **Conditions:**
  - ○ UN says a **crime of genocide** includes two main elements:
    - ● **Mental Element:** The intent to destroy, in whole or in part, **a national, ethnic, racial or religious group.**
    - ● **Physical Element:** It includes the following five acts, enumerated exhaustively:
      - ■ **Killing** members of the group
      - ■ Causing **serious bodily or mental harm** to members of the group
      - ■ **Deliberately inflicting on the group conditions** of life is calculated to bring about its physical destruction in whole or in part
      - ■ Imposing **measures intended to prevent births** within the group
      - ■ **Forcibly transferring children** of the group to another group
  - ○ Also, the **members of the attacked group must have been attacked because they are members of the group, and not as individuals,** for the crime to qualify as a genocide.
- ➢ **Genocide Convention:**
  - ○ The **Genocide Convention,** also known as the **Convention on the Prevention and Punishment of the Crime of Genocide,** is an **international treaty** that was adopted by the **UNGA** on **December 9, 1948.**

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○ The purpose is to prevent and punish the crime of genocide and

○ requires **signatory nations** to take action to prevent and punish genocide, including by **enacting laws that criminalize the crime of genocide** and by cooperating with other nations in the investigation and prosecution of individuals suspected of committing genocide.

○ The Convention also establishes the **International Court of Justice** as the primary judicial body responsible for interpreting and enforcing the Convention.

○ It was the **first human rights treaty** adopted by the **General Assembly** of the **UN on 9 December 1948.**

What is the Armenian Genocide?

➢ **Background:** Armenians are an ancient people whose traditional homeland by the beginning of the **20th century** was divided between the **Russian** and the **Ottoman empires.**

○ In the **Ottoman Empire,** dominated by **Muslims, Armenians** were a **Christian,** well-off minority.

○ On account of their religion, they faced discrimination, which they had been protesting and demanding greater say in the government. This had led to resentment and attacks against the community.

➢ **Role of Young Turks and WW-I:** A revolution brought in 1908 by a group called the **Young Turks** and paved the way for the **Committee of Union and**

Progress (CUP) forming the government which wanted **'Turkification'** of the empire and was hard on minorities.

○ In **August 1914,** World War I broke out, and the **Ottoman Empire** joined forces with **Germany** and **Austria-Hungary** against **Russia, Great Britain** and **France.**

○ The war brought antipathy towards **Armenians** to a boil, especially as some **Armenians** were sympathetic to **Russia** and even willing to help it in the war.

● Soon, the Armenians as a whole were seen as a threat.

○ The crackdown of April 14, 1915 on the community began in earnest with the arrest of prominent citizens in **Constantinople,** many of whom were executed.

● The government then ordered forcible eviction of **Armenians.**

○ In spring **1915** the **Ottoman government** began the deportation of the **Armenian population** from its **northeastern border regions.**

● **Recognition as 'Genocide':** Armenian genocide has been recognized so by **32 countries as of now**, including the **US, France, Germany, the Armenian genocide.**

○ **India** and **UK** do not recognize the **Armenian Genocide.** India's stand can be attributed to its **wider foreign policy decisions** and **geo-political interests** in the region.

○ **Turkey does not recognize the Armenion massacre** as **genocide** and has always claimed that there is no proof the deaths were planned and targetted.

● **Current Status of Armenia-Turkey Relations:** The **modern state of Armenia** has in the past sought better ties with **Turkey**, although the two are now locked in a tussle over the **Nagorno-Karabakh region** an **Armenian-dominated part of Azerbaijan** where **Turkey supports Azerbaijan.**

What are the Law and Regulations in India for Genocide?

➢ **India does not have any domestic law on genocide**, even though it has **ratified the UN Convention on Genocide.**

➢ **Indian Penal Code (IPC):**
   ○ The **Indian Penal Code (IPC)** provides for the punishment of genocide and related crimes, and sets out the procedures for investigation, prosecution, and punishment.
   ○ Genocide has been defined as a crime under **IPC Section 153B,** which criminalizes acts that promote enmity between different groups on grounds of **religion, race, place of birth, residence, language, etc.** with the intent to cause riots or commit acts of violence.

➢ **Constitutional Provisions:**
   ○ The **Indian Constitution** provides protection against discrimination on the basis of **religion, race, caste, sex, or place of birth.**
     ● **Article 15** of the Constitution **prohibits discrimination** on these grounds.
     ● **Article 21** guarantees the **right to life and personal liberty.**

Sudan Crisis and Operation Kaveri

Why in News?

India has started **'Operation Kaveri'** to evacuate **its nationals owing to the Current Crisis in Sudan.**

What is Operation Kaveri?

➢ Operation Kaveri is a codename for India's evacuation effort to bring back its citizens stranded in Sudan amid intense fighting between the army and a rival paramilitary force there.

➢ The operation involves the deployment of **Indian Navy's INS Sumedha**, a stealth offshore patrol vessel, and **two Indian Air Force C-130J special operations aircraft** on standby in Jeddah.

➢ There are about 2,800 Indian nationals in Sudan, and there is also a **settled Indian community of about 1,200 in the country.**

➢ Around 3,000 Indians are stuck in various parts of Sudan, including capital Khartoum and in distant provinces like Darfur.

What is the Current Crisis in Sudan?

➢ **Background:**
   ○ The conflict in Sudan has its roots in the overthrowing of long-serving President Omar al-Bashir by **military generals in April 2019**, following widespread protests.
   ○ This led to an agreement between the **military and protesters, under which a power-sharing body called the Sovereignty Council** was established to lead Sudan to elections at the end of 2023.
   ○ However, the military overthrew the transitional government led by Abdalla Hamdok in October 2021, with Burhan becoming the de-facto leader of the country and Dagalo his second-in-command.

➢ **Tussle between Army and RSF:**
   ○ Soon after the 2021 coup, **a power struggle between two military (SAF) and paramilitary (RSF) generals** arose, interrupting **a plan to transition to elections.**
     ● A preliminary deal was reached in December 2021 for a political transition, but negotiations hit a roadblock over the integration of the paramilitary **Rapid Support Forces (RSF)** with

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the Sudanese Armed Forces (SAF), due to **disagreements over the timetable and security sector reforms.**

○ Tensions escalated over the **control of resources and RSF integration,** leading to clashes.

What is RSF?

➢ The RSF is a group, evolved from Janjaweed militias, which fought in a conflict in the 2000s in the Darfur region in West Sudan nearing the Border of Chad.

○ Over time, the militia grew and made into the **RSF in 2013**, and its forces were **used as border guards in particular.**

➢ In 2015, the RSF along with Sudan's army began sending troops to fight in the war in **Yemen alongside Saudi and Emirati forces.**

➢ In addition to the Darfur region, the RSF was deployed to states such as **South Kordofan and the Blue Nile**, where it was accused of committing human rights abuses.

○ In a 2015 report, Human Rights Watch described its forces as **"men with no mercy".**

● There was disagreement over how the 10,000-strong RSF should be integrated into the army, and which authority should oversee that process.

○ Also, Dagalo (RSF general) wanted to delay the integration for 10 years but the army said it would take place in the next two years.

What are the Repercussions of the Current Crisis?

➢ **Difficulty in Democratic Transition:** The battle between the army and RSF has likely **made Sudan's transition to democracy** more difficult.

○ It is anticipated the tussle may transform **into a wider conflict leading** to the country's collapse.

➢ **Economic Crisis:** Sudan's **economy is struggling, battered by hyperinflation and crippled by massive foreign debt.**

○ Billions of dollars given in international support and debt relief were frozen after the ouster of the Hamdok government.

➢ **Disturbance in Neighbouring Countries:** Since Sudan's location borders seven countries, this conflict may spill over into neighboring countries and destabilize the region. **Chad and South Sudan are particularly vulnerable.**

○ The situation could lead to **major external intervention** if the fighting continues. **Refugees from Sudan's contested areas have already arrived in Chad.**

How are India-Sudan Relations?

➢ **Strategic Significance of Sudan:**

○ Sudan is located in Northeast Africa and is the **third largest African Nation.**

○ Owing to its strategic location on the **Red Sea**, **access to the Nile River, the vast swath of gold reserves** and **agriculture potential,** it has long been coveted by the outside powers, including its neighbours, the Gulf countries, Russia and the Western nations.

➢ **Bilateral Projects:**

○ It had already implemented **49 bilateral projects through concessional lines** of credit worth USD 612 million in areas such as energy, transport, and agribusiness industry in Sudan in 2021.

➢ **Support in Juba Peace Agreement:**

○ India supported Sudan's efforts to form a transitional government and also supported the Juba Peace Agreement signed by the government in October 2020.

● Chad, UAE and **Intergovernmental Authority on Development (IGAD)** were the guarantors, while Egypt and Qatar were witnesses to the peace deal.

○ The agreement covered various areas such as governance, security, and justice and was important for future constitutional negotiations.

● India also supported including armed movements from outside in the negotiation process and a national plan for civilian protection with 1,200 personnel.

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➢ **Indian Technical and Economic Cooperation:**
  ❍ Under the Indian Technical and Economic Cooperation (ITEC) India offered 290 scholarships to Sudan towards **capacity building.** Besides, India had offered humanitarian assistance including food supplies to Sudan in 2020.

➢ **Bilateral Trade:**
  ❍ Over the years, the bilateral trade between India and Sudan has grown from USD 327.27 million in 2005-06 to USD 1663.7 million in 2018-19.
  ❍ India's investments in Sudan and South Sudan were roughly USD 3 billion, out of which USD 2.4 billion was invested in the petroleum sector from ONGC Videsh, a public sector undertaking.

What are the Evacuation Operations carried out by India?	
Operation Ganga (2022):	➢ It is an evacuation mission to **bring back all the Indian nationals who are currently stranded in Ukraine.** ➢ The **tensions between Russia and Ukraine** are currently heightened, with war erupting in Ukraine after the Russian military launched a series of attacks recently.
Operation Devi Shakti (2021):	➢ **Operation Devi Shakti** was **India's complex mission to evacuate its citizens and Afghan partners from Kabul** after its swift **takeover by the Taliban.**
Vande Bharat (2020):	➢ When the **Covid-19 pandemic** hit the world, the Centre launched the Vande Bharat Mission to bring back Indian citizens stranded in foreign countries. ➢ In the multiple phases of the operation, **about 60 lakh Indians** were brought back as on 30th April, 2021
Operation Samudra Setu (2020):	➢ It was a **naval operation** as part of the national effort to bring home Indian citizens from overseas during the **Covid-19 pandemic.** ➢ It successfully brought back **3,992 Indian citizens** to their homeland by sea. ➢ Indian Naval ships **Jalashwa (Landing Platform Dock)**, and **Airavat, Shardul and Magar (Landing Ship Tanks)** participated in this operation which lasted over 55 days and involved traversing more than 23,000 km by sea.
Evacuation from Brussels (2016):	➢ In March 2016, Belgium was hit by terrorist strikes at Brussels Airport in Zaventem, and one at Maalbeek Metro station in central Brussels. ➢ A total of 242 Indians, including 28 crew members, returned to India in a Jet Airways flight.
Operation Raahat (2015):	➢ In 2015, a conflict raged between the **Yemeni government and Houthi rebels.** ➢ Thousands of Indians were stranded and Yemen was not accessible by air due to a no-fly zone announced by Saudi Arabia. ➢ Under Operation Raahat, India **evacuated nearly 5,600 people from Yemen.**

Note:

What are the Evacuation Operations carried out by India?	
Operation Maitri (2015):	➢ It is the **joint relief and rescue operation** by the Indian government and the Indian Armed forces in the aftershock of the 2015 Nepal earthquake.
	➢ The joint Army-Air Force operation brought over 5,000 Indians back from Nepal by Air Force and civilian planes. The Indian army successfully **evacuated 170 foreign nationals** from the US, the UK, Russia and Germany.
Operation Safe Homecoming (2011):	➢ India launched 'Operation Homecoming' to **bring back Indian citizens stranded in conflict-torn Libya.**
	➢ Under the operation, **India evacuated 15,400 Indian nationals.**
	➢ The air-sea operation was conducted by the Indian Navy and Air India.
Operation Sukoon (2006):	➢ As Israel and Lebanon broke into military conflict in July 2006, India rescued its stranded citizens by launching this operation, which is now famously known as **the 'Beirut Sealift'.**
	➢ It was the **largest naval rescue mission** since the **'Dunkirk' evacuation.**
	➢ The task force **evacuated about 2,280 people** including some Nepalese and Sri Lankan nationals between **19th July and 1st August 2006.**
1990 Kuwait Airlift (1990):	➢ In 1990, when 1,00,000 Iraqi soldiers armed with 700 tanks marched into Kuwait, the royals and VIPs had fled to Saudi Arabia.
	➢ The general public was left behind to fend for themselves.
	➢ **Over 1,70,000** of those stranded in Kuwait were Indians.
	➢ India **kicked off the evacuation process** in which over **1,70,000 Indians were airlifted** and repatriated to India.

IMF and World Bank Group's Spring Meetings 2023

Why in News?

Recently, The **International Monetary Fund (IMF) and World Bank Group (WBG)** held their **Spring Meetings** in Washington DC, United States.

➢ The discussions focused on issues of international concern, such as the international **debt crisis**, rising **inflation**, **climate** and development, **poverty eradication**, and **slowing economic growth.**

What are the Major Takeaways of IMF and WBG Spring Meetings 2023?

➢ **Debt Crisis:**

○ **Global Sovereign Debt Roundtable (GSDR):**
- The **Global Sovereign Debt Roundtable (GSDR)**, co-chaired by the IMF, WBG, and India as the **Group of Twenty (G20) 2023 presidency**.
- GSDR met with **bilateral creditors** (**France — chair of the Paris Club, US, the United Kingdom, China, Saudi Arabia and Japan**) and **debtor countries (Ecuador, Suriname, Zambia, Sri Lanka, Ethiopia and Ghana) and Brazil as the forthcoming presidency of the G20 in 2024.**

➢ **Issue Highlighted:**
○ Many developing countries are facing high debt burdens due to the pandemic, **rising inflation, and the Russia-Ukraine war,** which negatively impacts their ability to invest in **climate mitigation and adaptation projects.**

Note:

- There was a particular spotlight on **African nations** that have been disproportionately impacted by Covid-19 and the consequent economic downturn.

➢ **Way Suggested:**

○ **GSDR** discussed **debt sustainability** and ways to address debt restructuring challenges.

- '**Debt Restructuring**' refers to the process by which countries, private companies or individuals can **change the terms of their loans so that it is easier for the debtor to pay back the loan.**

➢ **Climate Crisis:**

○ **Issue Highlighted:**

- The **Vulnerable Twenty Group of Ministers of Finance (V20),** representing 58 countries most systematically vulnerable to climate change impacts, highlighted the **urgent need to transition to a global financial system that can deliver development-positive climate action** for the most vulnerable.

- It addressed growing concerns about the climate crisis, covering topics such as **climate finance, energy security,** sustainable supply chains, and workforce readiness for green jobs.

- **Access to timely concessional finance** was identified as a major hurdle faced by **climate-vulnerable nations,** as their **fiscal space is under pressure to address climate risks** while facing debt distress and high cost of capital.

➢ **Way Suggested:**

○ **Accra Marrakech Agenda:** The **V20 proposed the Accra Marrakech Agenda, to** build an **international coalition for a fit-for-climate**, addressing critical areas such as debt, transforming the international and development finance system, **carbon financing, and risk management in a climate-insecure world.**

- The upcoming IMF and WBG annual meeting in October 2023 will be held in Marrakech.

- The V20 also urged multilateral financial institutions and development agencies at the 2023 Spring Meetings to **collaborate towards developing a 'New Global Financial Pact' in June 2023.**

➢ **Financial Support to Low Income Countries:**

○ The IMF reiterated its role in **providing financial support to low-income countries** and committed to continuing support towards the **Poverty Reduction and Growth Trust (PRGT)** so that it is able to continue its support to **low-income countries.**

- The IMF provides concessional finance to low-income countries through the PRGT.

- However, the **Covid-19 pandemic,** the Russia-Ukraine war and the consequent spike in lending have **strained PRGT resources.**

➢ **Digital Solutions to Unlock Human Capital Potential:**

○ The IMF also highlighted that it is currently analysing the **macroeconomic implications of digital development** to shape the policy approach to new public and private digital infrastructure.

China's Outreach in Central Asia

Why in News?

Recently, China has conducted a meeting of trade ministers of the grouping known as **C+C5** — China and the five Central Asian republics, namely **Uzbekistan, Kazakhstan, Tajikistan, Turkmenistan, and Kyrgyzstan.**

➢ It was the latest in a series of diplomatic engagements by China with the region since the **Russian invasion of Ukraine.**

What is the China-Central Asia Engagement?

➢ **C+C5:**

○ The **first C+C5 summit held in Jan 2022** marked the **30th anniversary of diplomatic relations** between China and Central Asian nations.

○ China's historical trade and cultural links with the region date back to the **ancient Silk Route**.

➢ **Significance for China:**

- The region **provides China with a market for cheap exports** and overland access to markets in Europe and West Asia.
- Central Asia is **resource-rich, with massive reserves of gas, oil, and strategic minerals** such as uranium, copper, and gold.
- China has also prioritized its relationship with these countries to ensure **peace in Xinjiang Autonomous Region**, which forms its frontier with Central Asia.

➢ **BRI and Investments:**
- China has been investing heavily in Central Asia through its **Belt and Road Initiative**, which includes projects in oil and gas, transportation, digital technology, and green energy.
- While China's investments have provided opportunities for economic growth in the region, there has also been resentment towards China due to its **treatment of Muslims in Xinjiang and concerns about its increasing presence** and land acquisitions.
  - Despite this, Central Asian governments have not joined international campaigns against China's treatment of its Muslim minority.
- China is now the region's **foremost trading partner, with talks underway for further transport and logistics projects** linking all countries in the region to China's seaports.

How are C5s Balancing their Relationships with Russia, China and West?

➢ **Heavily Dependent on Russia:**
- The region is heavily reliant on Russia, which is also the **main provider of security through the CSTO (Collective Security Treaty Organisation).**
- However, the CSTO's unity is weakening, and the **conflict in Ukraine** has raised **concerns about the consequences of Russia's security** relationship with Central Asia.
  - In 2022 **Kyrgyzstan cancelled a CSTO military exercise** that was to be held on its territory last year, and **none of the five Central Asian countries have openly taken Russia's side** in the conflict.
- Nevertheless, Russia has increased its trade with the **region as it seeks to reduce its dependence on European imports.**

➢ **China's Increasing Engagement:**
- China has been increasing its engagement with Central Asia, leading some to speculate that Beijing is taking advantage of Russia's preoccupation with Ukraine to expand its influence in the region.
- While Russia may be concerned about Chinese expansion, there was no visible indication of this.

➢ **Seeking towards West:**
- Central Asian countries are seeking to develop trade relations with the West, including the European Union and the United States.
- However, the region's **landlocked geography and limited transport infrastructure have hindered** this effort.

What is India's Stake in Central Asia?

➢ **Cultural and Ancient Ties:**
- The Silk Route connected India with Central Asia from the 3rd century BC to the 15th century AD. From the export of Buddhism to the lasting influence of Bollywood, India has **shared old and deep cultural ties with the region.**

➢ **Security:**
- In December 2022, officials from Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan arrived in India for the **first India-Central Asia meeting of national security advisors.**
  - It highlighted the India-Central Asia relationship, emphasizing their common shared interests, such as stabilizing the **security situation in Afghanistan and reinforcing territorial integrity.**
    - India has also attempted to boost its security presence in the region by **renovating military bases in Tajikistan.**
    - If operational, the airbases would offer **India a strategic advantage against its two adversaries: China and Pakistan.**
      - Tajikistan is located close to the Wakhan Corridor, which connects Afghanistan and China, as well as **Pakistan Occupied Kashmir**.

➢ **Extended Neighborhood Policy:**
- In 2022 India demonstrated its commitment to its **"Extended Neighborhood Policy (ENP),"** which calls to diversify its geopolitical partners and

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diplomatic goals, and its willingness to engage its Central Asian partners on a multitude of fronts.

- The ENP was launched in 2014 and seeks to build a web of partnerships and economic cooperation with neighboring countries.
  - The policy emphasizes **India's commitment to promoting regional stability, peace, and prosperity** through mutually beneficial cooperation with its neighbors.
- **Shanghai Cooperation Organization (SCO):**
  - India joined **SCO**, as a full member in 2017.
    - SCO also includes Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.
  - The grouping provides India with a forum to establish **security relationships with Astana, Bishkek, and Tashkent**, adding on to robust ties with Tajikistan.
- **Connectivity as a Challenge:**
  - While India has trading ties with the C5, it is **hobbled by the absence of a land route to Central Asia,** with **Pakistan denying it passage** and **Afghanistan being uncertain territory** after the Taliban takeover.
    - The **Chabahar port in Iran** offers an alternative route, but it is not fully developed yet.
  - There have been suggestions that **India should provide connectivity** for people and trade in **Central Asia through "air corridors"**, as it had done for Afghanistan.

India-Thailand Relations

Why in News?

The **8ᵗʰ India-Thailand Defence Dialogue** was held in Bangkok, Thailand, during which both sides expressed satisfaction at the ongoing bilateral defense cooperation.

What are the Key Highlights of the Dialogue?

- The progress on various bilateral defence cooperation initiatives was reviewed.
- The co-chairs identified **means to enhance existing areas of collaboration**, especially in the field of defence industry, maritime security and **multinational cooperation.**
  - Thailand expressed confidence in the capability of the Indian defence industry.
- The two chairs also **articulated steps in the direction of emerging areas of cooperation** and issues pertaining to global commons.

How have India's Relations been with Thailand?

- **Diplomatic Relations:**
  - Thailand and India have a **longstanding diplomatic relationship that dates back to 1947.**
  - The relationship is built on a foundation of **economic and cultural ties that have existed for more than 2000 years.**
  - India's **'Look East' policy** (since 1993) and **Thailand's 'Look West' policy** (since 1996) which has now metamorphosed into **India's 'Act East'** and **Thailand's 'Act West"** are strongly contributing to consolidating bilateral relations including economic & commercial linkages.
- **Economic And Commercial Relations:**
  - Bilateral trade was USD 12.12 billion in 2019 and it reached USD 9.76 billion in 2020 despite the pandemic situation.
    - Thailand exports to India amounted to USD 7.60 billion, while Indian exports to Thailand were worth **USD 4.86 billion in 2018.**
  - Bilateral trade between India and Thailand reached an all-time high of around **USD 15 billion in 2021-22.**
  - In the **ASEAN region**, **Thailand ranks as India's 5ᵗʰ largest trading partner** after Singapore, Vietnam, Indonesia and Malaysia.
    - Currently, **Thai goods have benefited from tax reduction** under **ASEAN-India FTA** in Goods, which came into effect in January 2010.

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- ➤ **Defence Cooperation:**
  - ○ The bilateral defence engagements have expanded over time and include Defence Dialogue meetings, military-to-military exchanges, high-level visits, capacity-building and training programs, and the annual joint military exercises.
  - ○ **Defense Exercises:**
    - **Exercise MAITREE (**Army).
    - **Exercise SIAM BHARAT** (Air Force).
    - **India-Thailand Coordinated Patrol** (Navy).
- ➤ **Connectivity:**
  - ○ In 2019, approximately 1.9 million Indian tourists visited Thailand, while around 160,000 Thai tourists visited India mainly for **Buddhist pilgrimage sites**.
  - ○ India and Thailand are working together to improve regional connectivity also under the **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** framework.
  - ○ The most awaited **India–Myanmar–Thailand Trilateral Highway** is expected to expand land connectivity through Northeast India and Southeast Asia, becoming the first-ever cross border facilitation agreement between South and Southeast Asia.
- ➤ **Cultural Cooperation:**
  - ○ India and Thailand have a strong cultural exchange program with regular visits of Indian cultural troupes, festivals, and events.
  - ○ An Indian Cultural Centre, now known as the **Swami Vivekananda Culture Centre**, was established in Bangkok in 2009.
  - ○ The 550th birth anniversary of Sri Guru Nanak Dev Ji was also celebrated in Thailand with various events and a grand Nagar Kirtan procession in Bangkok.
  - ○ The Thai language translation of the Constitution of India was launched in Thailand.

Hope for Peace in Yemen

Why in News?

The warring sides in Yemen are swapping hundreds of prisoners - a move which has built **hopes for a permanent ceasefire between the Saudi-backed government forces and the Iranian-backed Houthi rebels.**

How did the War in Yemen Begin?

- ➤ The Yemeni Civil War began in 2011 after the ousting of authoritarian president Ali Abdullah Saleh. The new president, Abdrabbuh Mansour Hadi, was unable to **stabilize the country due to economic and security problems.**
- ➤ The **Houthis, a Zaidi Shia Muslim minority group**, took advantage of this and seized control of **the north and the capital, Sanaa in 2014.**
  - ○ This alarmed **Saudi Arabia, which feared that the Houthis would become allies to their rival, Iran**. Saudi Arabia then led a coalition that included other Arab countries and sent troops to Yemen in 2015. However, they were unable to drive out Houthis from Sana'a as well as from the north of the country.
- ➤ In April 2022, the UN brokered a ceasefire between the Saudi-led coalition and the Houthi rebels, though the sides failed to renew it six months laters.

What is the Stockholm Agreement?

- ➤ The warring parties in control of parts of Yemen had signed the Stockholm Agreement in December 2018, committing to **freeing conflict-related detainees.**
- ➤ The agreement brokered by the United Nations had three main components:
  - ○ **The Hudayah agreement:**
    - The Hudayah agreement included a **ceasefire in the city of Hodeidah** and other clauses like no military reinforcements in the city and **strengthened United Nation presence**
  - ○ **The Prisoner Exchange Agreement:**
    - The agreement was supervised by the Office of the Special Envoy of the Secretary-General

for Yemen, and the **International Committee of the Red Cross** will oversee and facilitate the process.

- They aim to ensure that fundamental humanitarian principles and procedures that **facilitate the release, or transfer or repatriation of all persons** who were deprived of their liberty during the events in Yemen.
  ○ **Taiz Agreement:**
    - The Taiz agreement includes the **formation of a joint committee with participation from civil society and the UN.**

How has this War Affected Yemen?

➢ According to the UN, Yemen is now the largest humanitarian crisis in the world, with **80% of its population dependent on aid and protection.**

➢ Over three million people have been displaced from their homes since 2015, and **public service sectors like healthcare, water, sanitation, and education** have either **collapsed or are in a dire situation.**

➢ Economically, Yemen is in the trenches, having **lost USD 90 billion in economic output**, and more than 6,00,000 people have lost their jobs**. More than half of the country's population is living in extreme poverty.**

What are the Concerns for India and the World in the Yemen Crisis?

➢ **Global:**
  ○ Yemen's location at the **strait linking the Red Sea** with the Gulf of Aden is critical for **global oil shipments,** raising concerns about the **impact of the conflict on global oil prices.**
  ○ The presence of groups like **al-Qaeda and IS affiliates in Yemen** poses a **risk to global security.**

➢ **India:**
  ○ **Yemen is a major source of crude oil for India,** and any disruption to the oil supply chain could have a **significant impact on India's energy security.**
  ○ The **large population of Indian expats in Yemen, Saudi Arabia, Iran** presents a significant challenge for India.
    - India has a responsibility to ensure the **safety and security of its citizens** and manage the impact of any **disruption to remittances, which are a significant source of income for many families in India.**

What are India's Initiatives?

➢ **Operation Rahat:**
  ○ India launched a **massive air and sea operation to evacuate over 4000 Indian nationals from Yemen** in April 2015.

➢ **Humanitarian Assistance:**
  ○ India has **provided food and medical aid to Yemen** in the past and thousands of Yemeni nationals have availed of medical treatment in India over the past few years.
  ○ India also continues to **facilitate education of a large number of Yemeni nationals** in various Indian institutions.

India-UAE Food Security Partnership

Why in News?

The **United Arab Emirates (UAE),** whose **food security** has been **built on imports from global markets**, is now focusing on the twin objectives of **food access and readiness to confront supply chain crises.**

➢ India, the **world's second-largest food producer**, is an essential partner in the **UAE's ambition to strengthen food security**.

➢ The **India-UAE food security partnership** stands to benefit from multiple points of convergence.

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How is India Strengthening its Global Food Security Partnership with UAE?

- ➢ **India's Capabilities:**
  - ○ **Strong Hold on Agri-exports:**
    - ● India has a **strong position as a global agri-export powerhouse** due to its **abundant arable land, favourable climate, and growing food production and processing sector.**
  - ○ **Humanitarian Assistance:**
    - ● India has also been involved in **humanitarian food aid to developing countries,** demonstrating its commitment to **regional and global food security.**
  - ○ **Food Parks and Supply Chain Management:**
    - ● India has made significant investments in **food parks** and **modern supply chain management** to benefit from bilateral trade agreements, showcasing its intent to excel in the global food marketplace.
  - ○ **Government Initiatives:**
    - ● India runs the **world's largest food subsidy program**, the **Public Distribution System,** providing affordable grains to nearly 800 million citizens, ensuring access to daily meals.
    - ● India's **POSHAN Abhiyaan' is the world's largest nutrition program** for children and women, emphasising the importance of nutrition in food security.
- ➢ **UAE's Contribution:**
  - ○ **Investment**:
    - ● The UAE has committed **USD 2 billion in investment towards constructing food parks in India** during the **I2U2 Summit 2022.**
  - ○ **Food Security Corridor:**
    - ● The **UAE has signed a food security corridor on the sidelines of the Comprehensive Economic Partnership Agreement (CEPA),** enhancing **India's presence on the global food value chain.**
  - ○ **Agriota:**
    - ● The **Dubai Multi Commodities Centre** has launched **Agriota**, an agri-trading and commodity platform, **connecting Indian farmers to the UAE's food ecosystem** and enabling **direct access to Emirati markets.**
  - ○ **Significance:**
    - ● **Gateway to New Markets for India:**
      - ▪ The UAE's strategic location between Asia and Europe can serve as **India's food export gateway to West Asia and Africa,** offering benefits beyond maintaining and diversifying its food reserves.
      - ▪ India stands to gain from the UAE's private sector projects, **generating non-farm agri-jobs** and providing better prices for farmers' products.
  - ○ **Template for Global Food Security Partnership:**
    - ● India's **G-20 presidency** provides an opportune moment to **showcase successful strategies and frameworks for food security in the Global South.**
    - ● India can leverage and strengthen trade pathways with the UAE to build a **sustainable, inclusive, efficient, and resilient future** of food as it sets the **global developmental agenda.**

What are the Major Challenges to Global Food Security?

- ➢ **Menace of Climate Change:** The **United Nations** called out **climate change, extreme weather events as the key factors driving growing food insecurity.**
  - ○ Increased temperatures, weather variability, **invasive crops and pests,** and more frequent extreme weather events have **detrimental effects on farming** – from **diminishing agricultural yields, to weakening the nutritional quality of produce on farms, to reducing farmer incomes**
- ➢ **Volatile Market Pricing:** The concept of **globalisation has given more openness to agricultural commerce,** but it is unable to assure more stable market pricing.
  - ○ The **lack of remunerative prices for end goods,** distressed sales, high cultivation costs combined with inappropriate market prices act as a barrier in the path of food security.
- ➢ **Trade Disruptions**: **Geopolitical tensions and trade disputes** can result in trade **disruptions, including embargoes, sanctions, and tariffs,** which can impact food trade and affect food prices and availability.
  - ○ This can particularly **affect countries that rely heavily on food imports,** leading to food shortages and increased food prices, making food less accessible for vulnerable populations.

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Russia-India Bilateral Trade

Why in News?

Recently, Russia's Deputy Prime Minister has attended the **24th Russia-India Inter-Governmental Commission (IGC) meeting** in India.

➤ Russia has expressed its interest in **importing manufacturing equipment,** including machinery, from India to replace those of Western origin.

What are the Key Highlights of the Meeting?

➤ Both countries reviewed the defense cooperation between India and Russia, which has been facing challenges related to deliveries and payments due to the **ongoing war in Ukraine**.

➤ The two countries discussed the **plans that India has for Russia's far eastern region**, which is an essential part of Russia's strategy in the **Indo-Pacific region.**

➤ They held discussions on bilateral trade efforts and the **identification of new industrial points that would provide additional impetus** for trade between the two countries.
  - ○ Balance of trade currently **tilts in favor of Russia,** and hence, the two sides discussed **ways to bring more balance** in trade relations.

➤ Both sides also discussed a wide range of issues related to bilateral trade, economic, and humanitarian cooperation.
  - ○ These discussions covered many areas of mutual interest, including those related to **technology, energy, healthcare, and education.**

What is the Status of India-Russia Trade Ties?

➤ India's total bilateral trade with Russia stood at ~USD 13 Billion **in 2021-22 and USD 8.14 Billion in 2020-21.**

➤ Russia is India's **seventh biggest trading partner**, up from **25th position in 2021.**
  - ○ The US, China, UAE, Saudi Arabia, Iraq, and Indonesia were the **six countries that recorded higher volumes of trade with India** during the first five months of 2022-23.

What are the Concerns Related to Bilateral Trade?

➤ **Trade Imbalance:**
  - ○ India's **Imports from Russia** accounted for **USD 17.23 Billion**, while India's exports to Moscow were only worth **USD 992.73 million**, resulting in a **negative trade balance** of USD 16.24 Billion in 2020-21.
  - ○ Russia's share in India's total trade has **increased to 3.54%, up from 1.27% in 2021-22.**
  - ○ While Russia's share in India's total trade was **2.1% in 1997-98,** it has hovered below 2% for the last 25 years.

➤ **Factors Causing Trade Imbalance:**
  - ○ The sudden jump in imports from Russia, **mainly oil and fertilizers**, which began to surge earlier in 2022, is the **main driver behind this increase in bilateral trade**.
    - ● **Petroleum oil** and other fuel items **accounted for 84% of India's total import**s from Russia, while **Fertilizers were second.**
  - ○ Together, fertilizers and fuel accounted for **over 91% of the total imports** from Russia this year.

How can Trade Imbalance Between Russia and India be Addressed?

➤ **Indian Export to Russia:**
  - ○ Both the countries are looking to increase Indian imports, particularly in the **machinery sector**, where India has advanced production capabilities.

➤ **Rupee-Ruble Mechanism:**
  - ○ One of the challenges facing the trade relationship is payments, logistics, and certifications. Both sides are in talks to resort to the **Rupee-Ruble mechanism** to safeguard bilateral trade from the impact of western sanctions.

➤ **New Industrial Points:**
  - ○ Both are looking to identify new industrial points that can give additional impetus for trade, and to negotiate a **Free Trade Agreement.**

Note:

What are the Different Aspects of Indo-Russia Relations?

➢ **Historical Background:**

○ During the **Cold War,** **India and the Soviet Union** had a strong strategic, military, economic and diplomatic relationship. After the Dissolution of the Soviet Union, Russia inherited its close relationship with India which resulted in both nations sharing a Special Strategic Relation.

○ However, the relations have taken a steep downfall over the past few years, especially in the post-Covid scenario. One of the biggest causes for this is **Russia's close relations with China and Pakistan,** which have caused many geopolitical issues in the past few years for India.

➢ **Political Relations:**

○ Two Inter-Governmental Commissions – **one on Trade, Economic, Scientific, Technological and Cultural Cooperation (IRIGC-TEC), and another on Military-Technical Cooperation (IRIGC- MTC),** meet annually.

➢ **Defence and Security Relations:**

○ Both countries regularly conduct the Tri-Services exercise **'INDRA'.**

○ The joint military programmes between India and Russia include:

● **BrahMos cruise missile programme**

● 5th generation fighter jet programme

● Sukhoi Su-30MKI programme

○ The military hardware purchased/leased by India from Russia includes:

● **S-400 Triumf**

● **Kamov Ka-226** **200 to be made in India under the** **Make in India initiative**

● **T-90S Bhishma**

● **INS Vikramaditya aircraft carrier programme.**

➢ **Nuclear Energy:**

○ Kudankulam Nuclear Power Plant (KKNPP) is being constructed within the scope of the Russia-India Inter-Governmental Agreement.

○ Both India and Russia are implementing Rooppur Nuclear Power Project in Bangladesh.

Ongoing Issues in Myanmar

Why in News?

The **International Court of Justice (ICJ)** recently rejected **Myanmar junta's appeal for a 10-month reprieve** to file a counter-memorial in response to the case accusing Myanmar of breaching the **International Genocide Convention.**

➢ The case pertains to the **atrocities committed by the Myanmar military during the "clearing" operations in 2017 in Rakhine state**, resulting in displacement of **Rohingya** people.

What Led to Instability in Myanmar?

➢ **Background** - **The country gained independence from Britain in 1948.** It was ruled by the armed forces from 1962 until 2011, when a new government began ushering in a return to civilian rule.

○ In the 2010s, the **military regime decided to transition the country towards democracy.** Although the armed forces remained powerful, political opponents were freed and elections were allowed to be held.

○ The **National League for Democracy** won the 2015 election, the country's first free and fair election participated by multiple parties, and **formed the government, raising hopes that the country is on its way to full transition to democracy.**

➢ **Military Coup:**

○ In the **November 2020 parliamentary election**, NLD secured the majority of the seats.

○ In the Myanmars' Parliament, the **military holds 25% of the total seats according to the 2008**

Note:

military-drafted constitution and several key ministerial positions are also reserved for military appointees.

○ When the **newly elected Myanmar lawmakers were to hold the first session of Parliament in 2021**, the military imposed a state of emergency for one year citing massive voting fraud in the parliamentary elections.

➢ **Associated Issues Highlighted by UN:**

○ Despite clear legal obligations for the military to protect civilians in the conduct of hostilities, there has been **consistent disregard for the related rules of international law.**

○ **Myanmar's economy has collapsed** with nearly half of the population now living below the **poverty line.**

○ Since the coup was launched, the military has **imprisoned the democratically elected leadership of the country** and, in subsequent months, detained over 16,000 others.

➢ **The Rohingya Issue:**

○ On August 25, 2017, an outbreak of **violence in Myanmar's Rakhine State** forced hundreds of thousands of Rohingya people to flee their homes.

○ The **Rohingya community** has also been cut off from the **pro-democracy movement in Myanmar.**

● **Over the years,** the pro-democracy movement in Myanmar has faced various challenges, including **restrictions on freedom of speech** and assembly, arbitrary arrests and detentions, censorship, and violence.

● In January 2020, the **UN's top court (ICJ)** ordered the **Myanmar to take measures to protect members of its Rohingya community** from genocide.

What is India's Stand on Myanmar Issue?

➢ **In recent years,** India has expressed **concerns over the human rights situation in Myanmar,** particularly with regards to the **Rohingya crisis.**

○ India has called for **peaceful resolution of the issue,** respect for human rights, and **accountability for those responsible for human rights violations.**

➢ Though India has expressed deep concern over recent developments in Myanmar, **cutting off from the Myanmar military is not a viable option as India** has significant **economic and strategic interests in Myanmar** and its neighbourhood.

○ **India's stance on the issue of Myanmar** may evolve based on the evolving situation and **geopolitical dynamics** in the region.

Note: Genocide is an **internationally recognized crime** where acts are committed with the intent to destroy, in whole or in part, a national, ethnic, racial, or religious group.

What is International Genocide Convention?

➢ The **International Genocide Convention,** also known as the **Convention on the Prevention and Punishment of the Crime of Genocide,** is a treaty adopted by the **United Nations General Assembly** on December 9, 1948.

○ According to this Convention, genocide is a crime that can take place both in time of war as well as in time of peace.

○ The Convention requires **states to prevent and punish genocide, including enacting domestic legislation.**

➢ The definition of the crime of genocide, as set out in the Convention, has been widely adopted at both national and international levels, including in the 1998 Rome Statute of the International Criminal Court (ICC).

➢ **India is a signatory to this convention.**

Note:

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ICJ vs. ICC

	International Court of Justice (ICJ) La Cour Internationale de Justice (CIJ)	International Criminal Court (ICC) La Cour pénale internationale (CPI)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council.
Location	The Hague, The Netherlands	The Hague, The Netherlands
Types of Cases	Contentious between parties & Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary, & maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Funding	UN-funded.	Assessed contribution from state parties to the Rome Statute; voluntary contributions from the U.N.; voluntary contributions from governments, international organizations, individuals, corporations and other entities.

Chinese Dual-Use Facilities Raise Security Concerns in India

Why in News?

Recent satellite images showing the construction of **a military facility on Coco Islands in Myanmar and a proposed remote satellite receiving ground station system in Sri Lanka,** both coming up with Chinese help, have raised concerns in India of possible surveillance across the region.

What are the Causes of Concern?

➢ **Coco Islands of Myanmar** located very close to India's Andaman and Nicobar Island chain are strategically important for India.

❍ China, which has been eyeing to encircle India in the Indian Ocean Region with its aggressive **'String of Pearls'** policy is developing a military facility on the islands.

❍ The island is being connected to the southern landmass using a new bridge which can anytime be used by the Chinese military.

➢ Because of its critical location, the proposed remote satellite receiving ground station in Sri Lanka **can be used to spy on Indian assets and intercept sensitive information** across the region.

❍ **Satellite tracking facilities are inherently dual-use in nature** which means they can be used for both civil and military activities.

❍ It's also apprehended that **India's satellite launch facilities in Sriharikota and the missile test range in Odisha could come under the scanner of the ground station** and launches from there could be tracked to obtain sensitive data.

Note:

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- Ground stations are surface-based facilities which are designed to provide real-time communication with satellites.

➢ Recently, a Chinese ship was seen docking at **Hambantota port in Sri Lanka**, the forementioned stations are likely to work in coordination with such vessels to gather vital information in the region.

Where are the Coco Islands located?

The Coco Islands are in the **north-eastern Bay of Bengal**. They are part of Yangon region of Myanmar. These islands are situated very close to the Andaman and Nicobar Islands.
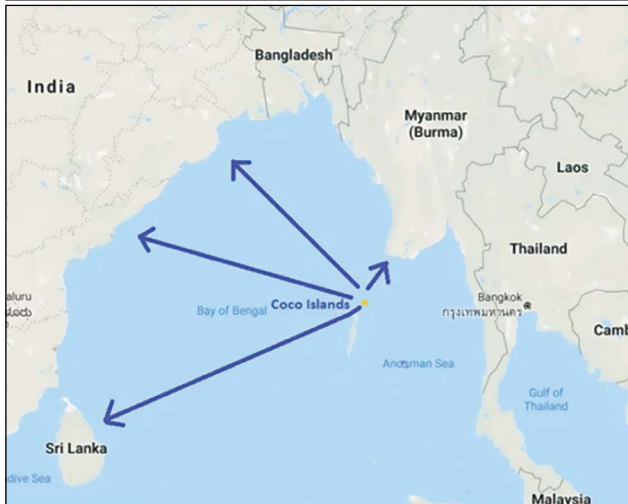
What are the Other Instances that Raise Doubts on China's Intentions?

➢ In August 2022, the docking of Chinese spy ship **'Yuan Wang-5'** at Hambantota created a major diplomatic showdown between India and Sri Lanka.

➢ Later in November, another vessel 'Yuan Wang-6' had entered the **Indian Ocean Region**, coinciding with a planned Indian long-range missile launch.

  ○ At that time, the launch was deferred, and the vessel had re-entered the IOR in December when the missile test was rescheduled.

What is China's "String of Pearls" Strategy?

➢ The **"String of Pearls"** is a geopolitical theory that refers to China's increasing efforts to develop and expand its ports and naval bases throughout the Indian Ocean region, from the Strait of Malacca to the Horn of Africa.

➢ The **theory suggests that China is seeking to establish a series of strategic naval bases and commercial ports along key sea-lanes in the Indian Ocean**, to protect its vital energy imports and enhance its maritime influence.

➢ These "pearls" include ports such as Gwadar in Pakistan, Hambantota in Sri Lanka, and Djibouti in Africa, which provide China with greater access and influence in the region.

➢ Belt and Road Initiative (BRI), sometimes referred to as the New Silk Road is another infrastructure project by China. It is also seen as part of China's **debt trap diplomacy**.

What is India doing to Counter China?

➢ **"Necklace of Diamonds" Strategy:** This strategy aims at garlanding China or in simple words, the counter encirclement strategy. India is expanding its naval bases and is also improving relations with strategically placed countries to counter China's strategies. India's strategic bases are:

  ○ **Chabahar port** – Iran
  ○ Sabang port – Indonesia
  ○ **Sittwe port** – Myanmar
  ○ Mongla port – Bangladesh
  ○ Changi naval base – Singapore

➢ **Forming groups with Like-minded Nations:** India has made agreements for military cooperation in the region with Japan, Australia and the USA. The four countries carry out joint military exercises in the IOR region and are known as the **'Quad'**.

➢ **Building Coastal Radar Networks:** India is installing coastal systems in the countries in Indian Ocean region

Note:

such as Sri Lanka, Mauritius, Maldives, Seychelles and Bangladesh. These radars will relay live images, videos, and location information of Ships moving in the Indian Ocean Region.

○ The project is implemented by **Bharat Electronics Limited (BEL).**

● **Act East Policy:** This was launched as an effort to integrate India's economy with South-East Asian nations. It has been used to make important military and strategic agreements with Japan, South Korea, Singapore, and Thailand helping India to counter China.

● **Military and Naval Relationships:** To upgrade and train its navy, India has developed a strategic naval relationship with Myanmar which gives India an increased footprint in the area.

● **Strategic Investments:** India has invested a lot diplomatically in countries like Turkmenistan, Uzbekistan, Kyrgyzstan, Kazakhstan and Mongolia - all surrounding China. It also has recently extended over USD 1.75 billion in grants and credit to Myanmar.

G7's Commitment Towards Carbon-free Electricity Production

Why in News?

The **Group of Seven (G7) countries'** **Climate and Energy Ministers** and envoys have committed to ensuring **carbon-free electricity production by 2035** and accelerating the **phase-out of coal**. The agreement was made at **Sapporo, Japan, ahead of the G7 summit** in Hiroshima in May 2023.

➢ India was also invited in the summit as a 'guest', in the **context of its G20 presidency.**

What are the Major Highlights of the Agreement?

➢ Recognising the current **global energy crisis and economic disruptions**, the agreement calls for accelerating the clean energy transition to **net-zero greenhouse gas (GHG) emissions by 2050.**

○ The G7 states cited the **urgent need to reduce GHG emissions** by around **43% by 2030** and **60% by 2035.**

➢ The participants agreed to **accelerate solar and wind energy investments** to produce **1,000 gigawatts of solar power and 150 gigawatts of wind power** from off-shore platforms by 2030 in line with **IPCC's AR6 Report** that repeats the need to ensure that global temperatures do not increase by more than **1.5°C of pre-industrial levels by the end of the century.**

➢ They reaffirmed that **fossil fuel subsidies are inconsistent with the goals of the Paris Agreement** and committed to **eliminating inefficient fossil fuel subsidies by 2025.**

➢ **Key Issues that Lacked any Concrete Action:**

○ Increasing **efforts to assist other countries** scale up their **energy transition** and energy efficiency.

● The funding provided by developed countries continues to fall short of the **commitment of USD100 billion per year made in UNFCCC COP27.**

○ UK and Canada's **proposal to phase-out coal by 2030**

What is G7?

➢ **About:**

○ The **Group of Seven (G7) is** an **intergovernmental organisation** consisting of seven major advanced economies: **Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.**

○ The **G7, originally G8 (before Russia was uninvited),** was set up in 1975 as an informal forum of leaders from the world's most advanced economies.

➢ **Objectives:**

○ The G7's primary objective is to **foster economic growth and stability among its member countries.**

○ It serves as a forum for leaders to discuss issues of mutual concern, including **trade, economic policy, and international security.**

○ The G7 also works to promote **cooperation and coordination on issues such as climate change, poverty reduction, and global health.**

➢ **Meetings:**

○ The G7 holds an **annual summit** where the leaders of its member countries meet to discuss and address issues of mutual concern.

● The **summit rotates among member countries**, with each country hosting the event in turn.

➢ **Significance**:

○ **Economic Powerhouses:** The G7 countries are some of the **world's largest and most powerful**

Note:

economies, representing 40% of the world's economic activity.

- They are also among the world's leading trading nations, with significant influence over **global trade policies and regulations.**

○ **Global Governance:** The G7 is an important institution of global governance, with significant influence over international institutions such as the United Nations and the World Trade Organization.

- Its policies and decisions can have significant implications for **global economic and political stability.**

➢ **Criticisms:**

○ **The G7, which consists of some of the world's most developed economies,** is responsible for around a **quarter of global carbon emissions**.

- It's a staggering figure that **underscores the significant role that these countries play in driving climate change**

○ The G7 has faced criticism for being **exclusive and unrepresentative of the world's population**, as it represents only a small fraction of the global population and excludes countries such as **India and China,** which are major economic powers.

○ Critics have also argued that the **G7's influence has declined in recent years as emerging economies have become more important in the global economy.**

What are India's Initiatives Regarding Carbon-Free Electricity?

➢ **Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA):** Empowering rural and urban households through **access to reliable and affordable electricity**

➢ **Green Energy Corridor (GEC)**: Synchronising **grid-connected renewable energy** with India's national transmission network

➢ **National Smart Grid Mission (NSGM) and Smart Meter National Programme (SMNP):** Modernising India's power sector into a secure, adaptive, sustainable, and digitally enabled ecosystem

◼◼◼

Note:

Social Issues

Highlights

- PRET & The Big Catch-Up Initiatives
- World Development Report 2023
- Code on Social Security 2020 and Gig Workers
- World Malaria Day
- Mandal Commission
- Hakki Pikki Tribal Community
- Bhoodan-Gramdan Movement
- State of World Population Report: UNFPA
- Civil Union and Marriage
- The Status of Women in Agrifood Systems: FAO
- Guidelines for Assessment of Child Suspects

PRET & The Big Catch-Up Initiatives

Why in News?

In response to the **Covid-19** pandemic, **two initiatives – PRET and the Big Catch-up – have been launched to better prepare for future outbreaks** of similar scale and devastation, as well as to **boost vaccination rates among children**.

What is the PRET Initiative?

➢ **About:**
  ○ **The Preparedness and Resilience for Emerging Threats (PRET) Initiative** was launched by the **World Health Organisation (WHO)** and operates under the aegis of the **International Health Regulations (IHR), 2005**, which is a critical international legal instrument for managing public health emergencies.

  - The initiative **was announced at the Global Meeting for Future Respiratory Pathogen Pandemics** held in Geneva, Switzerland.

➢ **Aim:**
  ○ It focuses on improving pandemic preparedness for groups of pathogens based on their mode of transmission.

➢ **Three Tiers of Pandemic Preparedness**: It recognizes that there are three tiers of systems and capacities relevant to pandemic preparedness:

Health context	Subsystems & IHR (2005) core capacities	3-tiers for system & capacity strengthening (approach)

- International Health Regulations (IHR, 2005)
- Others (national, regional & global)

- Policy, legal & normative instruments
- Human resources
- Coordination
- Financing

- Laboratory
- Surveillance
- One Health / Zoonoses

- Infection prevention & control
- Points of entry & border health
- RCCE

Pandemic Accord

Governance · Systems · Financing

for pandemic preparedness, response and resilience

Collaborative surveillance

Community protection

Emergency coordination

Access to countermeasures

Clinical care

1. All / multi-hazard (NAPHS)
2. Pathogen groups (PRET)
3. Pathogen specific (Strategies)

- Pandemic Fund
- Others (national, regional & global)

- Health emergency management

- Health services provision
- Infection prevention & control

Broader context: Resilient communities and One Health multisectoral systems

Note:

- ❍ those that are cross-cutting for all or multi-hazards
- ❍ those that are relevant for groups of **pathogens** (respiratory, arboviruses etc.)
- ❍ those that are specific to a pathogen.
- ➢ **Coordinating Efforts:**
  - ❍ As part of its efforts, the WHO convenes an informal coordination forum known as the **Respiratory Pathogens Partners Engagement Forum (R-PEF)** which enables WHO and partners to exchange information on planned activities and other developments on planned activities.

> *Note:*
> - ➢ In Feb 2023, **WHO published a 'Zero-Draft' of the Pandemic Treaty**, aiming to bring in Global and National-Level **Pandemic Preparedness**.
> - ➢ It calls for **increased global coordination and cooperation in the preparation for and response to pandemics** and other global health emergencies.

What is The Big Catch-Up Initiative?

- ➢ **About:**
  - ❍ It was launched by the **WHO**, **UNICEF,** **Bill & Melinda Gates Foundation** along with **Immunization Agenda 2030** and many other global and national health partners, a **targeted global effort to boost vaccination.**
- ➢ **Aim:**
  - ❍ It **aims to protect populations from vaccine-preventable outbreaks like -measles**, **diphtheria, polio** and **yellow fever** - save children's lives and **strengthen national health systems.**
- ➢ **Main Focus:**
  - ❍ The initiative will **pay special attention to the 20 countries** — Afghanistan, Angola, Brazil, Cameroon, Chad, DPRK, DRC, Ethiopia, **India**, Indonesia, Nigeria, Pakistan, Philippines, Somalia, Madagascar, Mexico, Mozambique, Myanmar, Tanzania and Vietnam which are home to a majority of the children who have missed their vaccine doses.
- ➢ **Salient Features of the Plan:**
  - ❍ Strengthening health care workforces
  - ❍ Improving health service delivery
  - ❍ Building trust and demand for vaccines within communities

- ❍ Addressing gaps and obstacles to restoring immunisation
- ➢ **Need:**
  - ❍ More than 100 countries **registered a drop in immunisation levels** as the pandemic burdened health services as well as disrupted imports and exports of medical supplies.
  - ❍ Access to healthcare was further compounded by strict lockdown measures, travel restrictions and depleting financial and human resources.
    - ● **India is among the 20 countries in the world where around 75% of children have missed essential immunisation** against preventable but critical diseases in 2021.
- ➢ **India's Efforts for Vaccination:**
  - ❍ As a result of the pandemic, immunisation efforts have been hampered, and some countries have already begun showing considerable progress.
    - ● **India managed to record a strong recovery in essential vaccines in 2022**
  - ❍ India's Major Initiatives for Vaccination include:
    - ● **Covid Vaccine Drive**
    - ● **Universal Immunization Programme which includes Indradhanush 4.0**
    - ● **Mass Immunization Campaign for Measles-Rubella (MR)**
    - ● **Pneumococcal Conjugate Vaccine (PCV)**
    - ● **CERVAVAC vaccine for the prevention of cervical cancer**
    - ● **Pulse polio programme**

> *Note:*
> - ➢ **World Immunization Week** is a health campaign coordinated by the WHO) and **celebrated in the last week of April, every year.**
> - ➢ It aims to promote the use of vaccines to protect people of all ages against disease.

World Development Report 2023

Why in News?

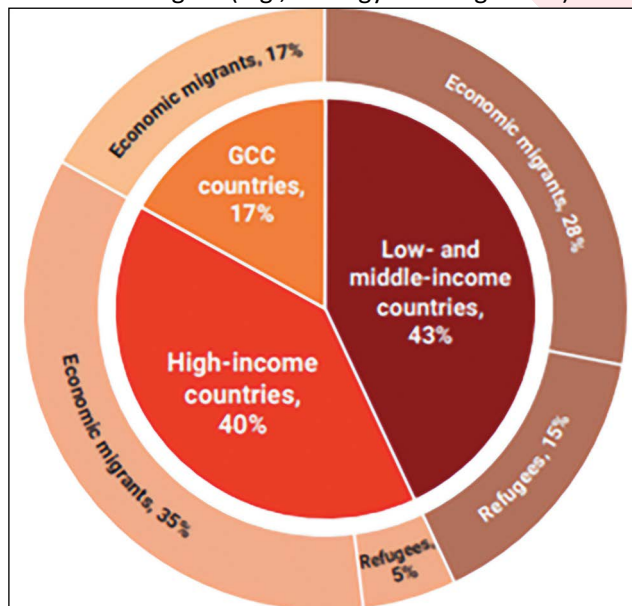Recently, the **World Bank** published the **World Development Report 2023: Migrants, Refugees &**

Societies.

➤ The report **estimated a 120% income gain for Indians who migrate to another country for work**, compared to a 40% rise in the case of internal migration.

What are the Highlights of the Report?

➤ **An Increase in Income:** Under-skilled Indian citizens migrating to the US noticed a hike in their income of nearly 500%, followed by the UAE by almost 300%.

  ○ Those migrating to the **Gulf Cooperation Council (GCC) nations** other than UAE stand to gain less.

  ○ **Overview of Global Migration and Refugees:** There are currently 184 million migrants globally, which is 2.3% of the population, including 37 million refugees. **There are four types of migrants:**

    ● Economic migrants with strong skill match (e.g., Indian IT professionals in the US or construction workers in GCC nations)

    ● Refugees with skills in demand at the destination (e.g., Syrian entrepreneurs in Turkey)

    ● Distressed migrants (e.g., Some poorly skilled migrants at the US southern border)

    ● Refugees (e.g., Rohingya in Bangladesh)

BIGGEST GAIN FOR DESIS HEADING TO US
Rise In Income (%) For Low-Skilled Workers

India-GCC *Approx	India-UAE	India-US*	Bangladesh-Malaysia	Philippines–Korea	Tonga-NZ
118	298	500	210	248	263

➤ **Top Migration Corridors: India-US**, India-GCC and **Bangladesh-India** have been identified to be among the top migration corridors globally along with Mexico-US, **China-US**, Philippines-US and Kazakhstan-Russia.
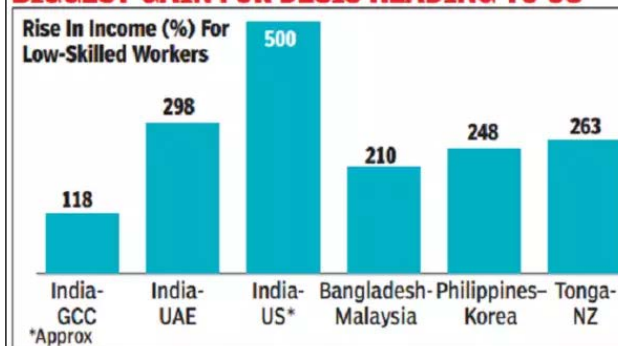
➤ **Increase in Remittances:** The **remittances** have increased to some of the countries with a large migrant population, including India, Mexico, China and the Philippines.

  ○ **India received the highest ever foreign inward remittances** of USD 89,127 million in FY 2021-22.

  ○ In 2021, **total global remittances were estimated at USD 781 billion** and **have further risen to USD794 billion in 2022**.

➤ **A Decline in Working-Age Adults:** The share of working-age adults will drop sharply in many countries over the next few decades.

  ○ **Spain is projected to shrink by more than one-third by 2100.**

What are the Challenges in this Regard?

➤ **Global Inequalities:** As per the World Bank, migration issues are becoming even more widespread and urgent due to severe divergences between and within countries— in terms of real wages, labour market opportunities, **demographic patterns** and climate costs.

➤ **Lack of Citizenship:** A significant number of people do not have **citizenship** in the country where they reside. Less than half of the global migrant population, **about 43%, live in low- and middle-income countries**.

  ○ This underscores the **global nature of the issue of statelessness** and highlights the need for action to address it.

➤ **Distressed Migration:** Some migrants move without skills that match the needs in the destination country and they are not refugees either. Such movements are often distressed irregular and take place under harrowing circumstances.

Note:

Code on Social Security 2020 and Gig Workers

Why in News?

Recently, the Ministry of State for Labour and Employment told the Lok Sabha that the definition of **'gig worker'** and **'platform worker'** has been provided for the first time in the **Code on Social Security (SS), 2020.**

What are the Provisions under Social Security Code, 2020?

➢ **Objective:**
  ○ The Code **aims to regulate the organized/ unorganized (or any other) sectors** and extend **social security** benefits, during sickness, maternity, disability, etc. to all employees and **workers across different organizations.**

➢ **Integrates Labour Laws:** The Code undertakes integrating the following 9 **labour laws relating to social security** into one integrated Code:
  ○ The Employees Compensation Act, 1923.
  ○ The Employees State Insurance Act, 1948.
  ○ The Employees Provident Fund and Miscellaneous Provisions Act, 1952
  ○ The Employees Exchange (Compulsory Notification of Vacancies) Act, 1959
  ○ The Maternity Benefit Act, 1961
  ○ The Payment of Gratuity Act, 1972
  ○ The Cine Workers Welfare Fund Act, 1981
  ○ The Building and Other Construction Workers Cess Act, 1996
  ○ The Unorganized Workers' Social Security Act, 2008

➢ **Coverage and Applicability:**
  ○ The **Code has widened coverage by including the unorganised sector**, **fixed term employees** and **gig workers, platform workers, inter-state migrant workers** in addition to **contract employees.**
  ○ The Code **applies to everyone on wages** in an establishment, irrespective of occupation.

➢ **Revised Definition:**
  ○ **On employees:** The term 'employees' now also includes workers **employed through contracts.**

  ○ **On inter-state migrant workers:** It also includes **self-employed workers who have migrated from another state**.
  ○ **Gig workers:** Freelancers, independent contractors, etc. who engage in hourly or temporary work and **share a non-traditional employer-employee relationship** are grouped as gig workers.
  ○ **Platform workers:** Workers **who use an app or website to get connected to their customers** are classified as platform workers.
    ● Since many kinds of businesses are beginning to use this approach, the labour ministry is looking to add more categories under this code.

➢ **Digitisation:**
  ○ **All records and returns have to be maintained electronically.** Digitisation of data will help in exchange of information among various stakeholders/funds set up by the Government, will ensure compliance and also facilitate governance.

➢ **Maternity Benefits:**
  ○ The provision of maternity benefits **has not been made universal** and is presently **applicable for establishments employing 10 workers** or more.
    ● The definition of 'establishment' in the proposed code **did not include the unorganised sector.**
  ○ Hence, **women engaged in the unorganised sector would remain outside the purview** of maternity benefits.

➢ **Stringent Penalties:**
  ○ Any failure to deposit employees' contributions not only attracts a penalty of Rs 100,000, but also imprisonment of 1-3 years. In the case of repeated offence, the penalties and **prosecution are severe, and no compounding is permitted for repeated offenses.**

What are the Concerns Related to SS Code?

➢ The code still has thresholds **based on the size of the establishment for making certain benefits** mandatory.
  ○ This means that certain benefits like **pension and medical insurance are only mandatory for establishments** with a certain minimum number of employees, thus leaving out a large number of workers.
➢ Additionally, the **codes treat employees within the same establishment differently based on their wages**.

Note:

Only employees earning above a certain threshold will receive mandatory benefits.

➤ The **delivery of social security benefits is still fragmented** and **administered by multiple bodies** such as the Central Board of Trustees, Employees State Insurance Corporation, and Social Security Boards. This can make it **confusing and difficult for workers to access the benefits** they are entitled to.

What is the Status of Gig Economy in India?

➤ **About:**
  ○ A gig economy is a labor market that relies **heavily on temporary and part-time positions** filled by independent contractors and freelancers rather than full-time permanent employees.

➤ **Gig Economy and India:**
  ○ The gig economy in India has been growing rapidly in recent years, with the increasing availability of **digital platforms that allow individuals to offer their services on a freelance** or part-time basis.
  ○ According to a report by **Boston Consulting Group**, **India's gig workforce comprises 15 million workers employed across industries** such as **software, shared services and professional services.**
  ○ According to a report by the **International Labour Organization**, India's gig economy is expected **to grow by 23% by 2025.**

➤ **Growth Drivers of Gig Economy:**
  ○ Rise of internet and mobile technology
  ○ Economic liberalisation
  ○ Increasing demand for flexible work
  ○ Growth of e-commerce
  ○ Growing young, educated and ambitious population that seeks to improve livelihoods with side income generation

➤ **Challenges:**
  ○ **Lack of job security, irregular wages, and uncertain employment status**
  ○ **Stress due to uncertainty** associated with regularity in available work and income
  ○ **Absence of workplace entitlements** due to contractual relationship

➤ **Limited access to the internet** and digital technology.

➤ **Gig Economy and Women:**
  ○ Gig employment allows **part-time work and flexible working hours** allowing women to **balance their traditional roles with employment.**
  ○ It **provides women with on-demand work** allowing them to join and drop-out of work force as per will.
  ○ Gig employment helps women earn **extra income, boosting confidence thus giving decision making power** - all important components of women empowerment.
  ○ Gig employment complemented by Work from Home (WFH) and technology has addressed the **issue of safety during travel and night shifts.**

World Malaria Day

Why in News?

World Malaria Day is observed every year on **25th April.**

➤ It was established by the **World Health Organization (WHO)** in 2007 to raise awareness about malaria.

➤ The theme for World Malaria Day 2023 **is "Time to deliver zero malaria: invest, innovate, implement".**

What is Malaria?

➤ **About:**
  ○ **Malaria** is a life-threatening disease caused by the **Plasmodium parasite.**
    • This parasite is transmitted to humans **through the bites of infected female Anopheles mosquitoes**.
  ○ Malaria is **most common in tropical and subtropical regions** of the world, including sub-Saharan Africa, Southeast Asia, and South America.
    • While **Plasmodium falciparum is responsible for more deaths**, **Plasmodium vivax is the most widespread** of all of the malaria species.

➤ **Symptoms:**
  ○ Once inside the human body, the **parasites multiply in the liver and then infect red blood cells**, causing symptoms such as fever, chills, headache, muscle aches, and fatigue.

❍ In **severe cases**, malaria can lead to **organ failure, coma, and death**.

➢ **Vaccine:**

❍ Till now, no malaria vaccine has shown the benchmark efficacy of 75% set by WHO. Still, WHO gave a go-ahead for the **first malaria vaccine called RTS,S** to be rolled out in high transmission African countries understanding the urgency of malaria control and prevention.

● It has relatively **low efficacy somewhere between 30-40%.**

● This vaccine has been developed by a collaborative effort of several organisations including GlaxoSmithKline (GSK), Bill and Melinda Gates Foundation etc.

❍ In India, **Bharat Biotech** has been granted license to manufacture this vaccine.

● **Similar to RTS,S vaccine the Oxford University has developed a vaccine called R21 which is still waiting for the WHO's approval.**

■ Ghana and Nigeria have approved this vaccine for use in their countries.

■ It is also being manufactured by Serum Institute of India.

➢ **Malaria Cases:**

❍ As per the **World Malaria Report 2022,** the disease claimed the lives of an estimated 6,19,000 people in 2021.

❍ The report also highlighted that India has shown a **significant decline in malaria cases and deaths in past 10 years.**

What are the Efforts Made to Contain Malaria?

➢ **Globally:**

❍ **Global Malaria Program:**

● It was launched by WHO and is responsible for coordinating WHO's global efforts to control and eliminate malaria.

● Its work is guided by the "Global technical strategy for malaria 2016–2030".

■ The strategy aims to reduce malaria case incidence and mortality rates by at least 40% by 2020, at least 75% by 2025 and at least 90% by 2030 against a 2015 baseline.

❍ **Malaria Elimination Initiative:**

● It was launched by **Bill and Melinda Gates Foundation**.

● This initiative focuses on eliminating malaria in certain regions of the world through a combination of strategies, including increasing access to effective treatments, reducing the mosquito population, and developing new tools and technologies to combat the disease.

❍ **E-2025 initiative:**

● In 2021, WHO launched the E-2025 initiative to halt the transmission of malaria in 25 identified countries by 2025.

❍ **India's efforts:**

● **National Vector-Borne Disease Control Programme:** It is an umbrella programme for prevention and control of vector borne diseases viz. **Malaria**, **Japanese Encephalitis (JE)**, **Dengue**, **Chikungunya**, **Kala-azar** and **Lymphatic Filariasis**.

● **National Malaria Control Programme (NMCP):** Launched in 1953, it is built around three key activities:

■ Insecticidal residual spray (IRS) with DDT

■ Monitoring and surveillance of cases

■ Treatment of patients

❍ **National Framework for Malaria Elimination 2016-2030:**

● Based on WHO Global Technical Strategy for Malaria 2016–2030 (GTS), the goals of the NFME are:

■ Eliminate malaria (zero indigenous cases) throughout the entire country by 2030

■ Maintain malaria–free status in areas where malaria transmission has been interrupted and prevent re-introduction of malaria.

❍ **High Burden to High Impact (HBHI) Initiative:** It was started in four states (West Bengal, Jharkhand, Chhattisgarh and Madhya Pradesh) in July 2019.

● **Distribution of Long-Lasting Insecticidal Nets (LLINs)** to high burden areas has led to a reduction in endemicity in these 4 very high endemic states.

Note:

- **Malaria Elimination Research Alliance-India (MERA-India):** It has been established by **Indian Council of Medical Research (ICMR)** with the conglomeration of partners working on malaria control.

Mandal Commission

Why in News?

The second phase of the caste survey beginning in Bihar and several other political debates have brought Mandal Politics once again in news.

What is Mandal Politics and Mandal Commission?

➢ **About:**
- ○ Mandal politics refers to a **political movement that emerged in the 1980s**, advocating for the inclusion of socially and economically disadvantaged communities, particularly the Other Backward Classes (OBCs), in government jobs and educational institutions.
- ○ The movement was **named after the Mandal Commission**.

➢ **Mandal Commission:**
- ○ The Mandal Commission or **the second Socially and Educationally Backward Classes Commission**, was established in India in 1979 with a mandate to "identify the socially or educationally backward classes" of India.
  - It was **headed by B. P. Mandal** and submitted its report in 1980 and was **implemented in 1990**.
- ○ The Commission reported that 52% of the country's population was comprised of OBCs.
- ○ Initially, the commission argued that the percentage of reservations in government service should match this percentage.
  - However, this would have gone against the Supreme Court ruling in **M.R. Balaji vs State of Mysore case (1963) which had laid down a limit of 50% on**. There was already a 22.5% reservation for SCs and STs.

- ○ Therefore, the figure of reservation for OBCs was capped at 27% which when added to keep the reservation below the 50% mark.
  - The Commission also identified backward classes among non-Hindus.

Recommendations of Mandal Commission:

➢ OBCs must be **provided a reservation of 27% in public sector** and government jobs.

➢ They should be **provided with the same 27% reservation in promotions** at all levels of public services.

➢ The reserved quota, if unfilled, should **be carried forward for a period of 3 years**.

➢ OBCs should be provided age relaxation similar to SCs and STs.

➢ Reservations to be made in PSUs, banks, private sector undertakings receiving government grants, colleges, and universities.

➢ The government to make the necessary legal provisions to implement these recommendations.

➢ **Impact of Mandal Commission:**
- ○ Implementation of Mandal Commission by the government resulted in a widespread protest where students committed self-immolation in protest when the government showed its intent to implement it.
- ○ The implementation was finally challenged in **Indra Sawhney vs Union of India case**.

What did the SC Rule in Indira Sawhney Case?

➢ In this case the Supreme Court held the **27% reservations for OBCs as constitutionally valid** but with certain conditions:
- ○ The court held that the **reservation must be in the four walls of 50% cap** and should not be extended in reservations promotions.
- ○ The concept of **creamy layer was also introduced** by the court to exclude well-off people from the community.
- ○ The **carry forward rule** (by which unfulfilled vacancies are filled in the upcoming year) **should not breach 50% ceiling**.

Note:

Landmark Cases and Judgements regarding Reservation

Cases	Judgement	Fallout
State of Madras v. Champakam Dorairajan, 1950	Court ruled that caste-based reservations violate Article 15(1) of the Constitution. It said reservation was an exception to equality and hence violated the right to equality.	Led to the introduction of the First Amendment of the Constitution, which invalidated the judgment.
M. R. Balaji v. State of Mysore, 1963	The Mysore government's 68% reservation in college admissions was ruled as excessive and unreasonable, and was capped at 50%.	The Supreme Court in the Indra Sawhney case imposed the 50 % limit on reservations in 1992.
Devadasan v Union of India, 1964	The court ruled that if reservations go beyond 50% they would be invalid.	Reservation was rationalised and was termed a facet of equality.
State of Kerala v NM Thomas	Reaffirmed the idea that reservation is not an exception but is necessary to establish equality. It ruled that Article 16(1)'s conception of equality itself includes remedial action to ensure due representation for hitherto excluded classes.	The ruling is considered to be the first definite judicial endorsement of the philosophy of reservation
Indra Sawhney & Others v. Union of India, 1992	The court upheld separate reservation for OBCs but excluded the "creamy layer". It rejected economic reservation and set a ceiling of 50 % for all reservations.	The case was pressed again in 1999 and the Supreme Court reaffirmed the creamy layer exclusion and extended it to SCs and STs.
M. Nagraj & Others v. Union of India and Others, 2007	Upheld 77th Amendment which extended reservations for promotion in employment for SCs and STs.	The court ruled that promotions should satisfy the triple test of backwardness, representation and the need for efficiency. Backlog vacancies were excluded from the 50% limit.
I. R. Coelho (deceased) by LRS. v. State of Tamil Nadu, 2007	Tamil Nadu advised by Supreme Court to follow 50% reservation limit	Tamil Nadu reservations were put under the 9th Schedule of the constitution, which had already been upheld by the court.
P. A. Inamdar v. State of Maharashtra, 2005	Reservations cannot be enforced on private educational institutions which do not receive government funding.	Led to 93rd Constitution Amendment introduced Art 15(5).
Ashoka Kumar Thakur v. Union of India, 2007	Upheld the 93rd Amendment on reservation for admission to unaided educational institutions	Recommended reviews of backwardness every 10 years.
Ram Singh & Ors v Union of India, 2014	Struck down the inclusion of Jats in the Central list of OBCs	Proposed new ways to determine backwardness
Jaishri Laxmanrao Patil v Union of India, 2021	Maratha reservation struck down as unconstitutional	The 50 % ceiling on reservations was reaffirmed
Janhit Abhiyan vs Union Of India, 2022	Upheld 103rd Amendment which introduced 10% reservation for Economically Weaker Sections in education and public employment	A new reservation regime created

What are the Merits of Mandal Commission?

➢ **Increased Representation:** The Mandal Commission helped in increasing the representation of SEBCs in government jobs and educational institutions.

○ According to Ministry of Social Justice and Empowerment, OBC representation against total appointment through direct recruitment was consistently above 27% during 2014-2021.

➢ **Access to Education:** The reservation policy enabled many OBC students to gain access to higher education. This resulted in a significant increase in the number of OBC students in universities and colleges.

○ According to the Ministry of Social Justice during the period of 2014-2021, the enrolment of OBCs in Higher Educational Institutions has been consistently increasing since 2014-15.

➢ **Social Justice:** The Mandal Commission's recommendations were based on the principles of social justice and aimed at providing equal opportunities to all sections of society, especially those who have been historically disadvantaged.

What are the Demerits of Mandal Commission?

➢ **Limited Impact on Upliftment:** The impact has been limited to a very few communities. According to the

Justice **Rohini G. Commission**, out of almost 6,000 castes and communities in the OBCs, only 40 such communities had gotten 50% of reservation benefits for admission in central educational institutions and recruitment to the civil services.

➢ **Politicisation:** The politicians have often used the **Reservation as their vote bank politics.** During 1980s, the Mandal Commission was highly politicized giving a new form of **Politics- Mandal politics.**

○ Even today, it is used as a political tool. Recently, a politician while campaigning in Karnataka has demanded to lift 50% limit on SC/ST/OBC reservation.

➢ **Negative Impact on Merit:** The reservation policy led to a negative impact on merit as **many deserving candidates were left out**, and the **seats were filled by candidates with lesser merit.**

Hakki Pikki Tribal Community

Why in News?

More than **181 members of the Hakki Pikki tribal community from Karnataka** are stuck in violence-hit **Sudan**.

What are the Characteristics of the Hakki Pikki Tribe?

➢ **About**:

○ The **Hakki Pikki tribe is a semi-nomadic tribe** traditionally engaged in **bird catching** and hunting, **living in forest areas in west and south India.**

○ It is a **Scheduled Tribe** in Karnataka and their origin is said to be an ancestral relation with the legendary **Ranapratap Singh**.

➢ **Origination and Settlement:**

○ The Hakki Pikki tribe is believed to have originated from **Gujarat and Rajasthan** and **migrated to south India via Andhra Pradesh.**

○ The tribe is divided into four clans and has a population of **11,892 in Karnataka.**

● The 4 clans are **Gujaratia, Panwar, Kaliwala and Mewaras** and can be **equated with castes in the traditional Hindu society.**

➢ **Society:**

○ The **usual age of marriage among the tribe is 18 for women and 22 for men,** and **cross-cousin marriages are preferred.**

○ The society is **matriarchal**, and **Monogamy is the norm.**

○ Hakki Pikkis in Karnataka follow Hindu traditions and celebrate all Hindu festivals.

○ **Education levels** among the Hakki Pikkis are **still low.**

➢ **Livelihood:**

○ The forest is the main natural resource of the Hakki Pikki.

○ The tribe has faced challenges due to **stricter wildlife protection laws**, leading them to **shift from hunting to selling herbal oils, spices, and plastic flowers** in local temple fairs.

➢ **Migration to Africa:**

○ In recent years, **members of the Hakki Pikki tribe have been travelling to African countries** to sell their products as there is a **huge demand for Ayurvedic products** in the continent.

○ African countries offer better market opportunities, with the potential for higher returns on investment in raw materials such as hibiscus powder, oil extraction, gooseberry, Ayurvedic plants, etc.

Bhoodan-Gramdan Movement

Why in News?

Recently, a village in Maharashtra moved to the Bombay High Court, demanding the implementation of the Gramdan Act.

What is Gramdan?

➢ **Bhoodan Movement:**

○ **Background:**

● It was a **socio-political movement** started by **Vinoba Bhave** in 1951 in India.

● Vinoba Bhave was **a disciple of Mahatma Gandhi** who **chose him as the first individual Satyagrahi** and had actively participated in **India's Freedom Struggle.**

● After independence, he realized that the issue of landlessness was a major problem faced by rural India and in 1951, he started the **Bhoodan Movement or the land gift movement.**

Note:

○ **Objectives:**

- It aimed to **persuade wealthy landowners to donate a portion of their land** to landless peasants.

- The movement gained momentum when Bhave walked from village to village, requesting **landowners to donate their land.**

- Bhave's approach was **rooted in the philosophy of non-violence** and the idea that the landowners should donate their land out of compassion and empathy for the poor.

○ **Gramdan Movement:**

- The next phase of the Bhoodan movement was the Gramdan Movement or the village gift movement.

- It aimed to create **self-sufficient villages by bringing about collective ownership** of land.

- The Gramdan movement **urged villagers to donate their land to a village council**, which would then manage and distribute the land to the villagers.

- This movement gained **support from many political leaders** and was seen as a solution to the problem of unequal distribution of land in rural India.

○ **Significance of the Movement:**

- The movement was successful in many parts of India, **with thousands of acres of land being donated** by landowners.

- The Bhoodan-Gramdan Movement had a **significant impact on Indian society** and politics; it helped in reducing landlessness, bringing about a more equitable distribution of land and empowerment of rural communities along with promoting self-sufficiency.

- It paved the way for the **protection of natural resources** by giving everyone in the community equal rights and responsibilities towards them and empowering the communities to move **towards self-governance.**

○ **Drawbacks:**

- Sometimes, the **land donated was either unfertile or under litigation.**
  - Hence, large areas of land were collected but little was distributed among the landless.

- It was **not successful in areas where there was disparity** in landholdings.

- Also, the movement also **failed to realize its revolutionary potential.**

What is the Current Scenario of the Gramdan Act?

➢ **Gramdan Act in Different States:**

○ Today, seven states in India have **3,660 Gramdan villages**, the highest being in Odisha (1309).

- The other six are Andhra Pradesh, Bihar, Maharashtra, Rajasthan, Tamil Nadu and Uttar Pradesh.

○ In September 2022, the Assam government repealed the **Assam Gramdan Act, 1961 and Assam Bhoodan Act, 1965**, by passing The Assam Land and Revenue Regulation (Amendment) Bill, 2022 to counter encroachment on donated lands in the state.

○ Till that time, Assam had 312 Gramdan villages.

➢ **Some Common Features of Gramdan Act:**

○ At least 75% of the landowners in the village should surrender land ownership to the village community. Such land should be at least 60% of the village land.

○ 5% of the surrendered land is distributed to the landless in the village for cultivation.

- Recipients of such land **cannot transfer the same without the permission** of the community.

○ The rest remains with the donors; they and their descendants can work on it and reap the benefits.

- However, they cannot sell it outside the village or to one in the village who has not joined Gramdan.

○ All the cultivators who have joined Gramdan should contribute 2.5% of their income to the community.

➢ **Concerns:**

○ The act has lost its relevance in many villages mainly due to **poor implementation of the law.**

○ In some villages, the descendants of those who had given their land under Gramdan are frustrated that they cannot sell their land outside the village and **call the act 'anti-development'.**

Note:

drishti

State of World Population Report: UNFPA

Why in News?

Recently, the **United Nations Population Fund (UNFPA)** has released the **State of World Population report 2023**, which states that India will overtake China to become the **world's most populous country by the middle of 2023**.

➢ The State of World Population is **published annually which covers and analyses developments and trends in world population** and demographics, as well as shedding a light on specific regions, countries and population groups and the unique challenges they face.

DEMOGRAPHIC INDICATORS

	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

What are the Key Highlights of the Report?

➢ **Population Estimation:**
  ○ India's population is pegged to reach 142.86 crore against China's 142.57 crore by July 2023.

  ● **25%** of India's population is in the age group **of 0-14 years**, **18% in the 10-19 age group**, 26% in the age bracket of 10-24 years, **68% in the 15-64 years age group**, and 7% above 65 years.
  ○ India will have 29 lakhs more people than its Asian neighbour.
  ● The **United States** is a third populated country, with a population of 340 million.

➢ **Slowing Population:**
  ○ Population growth in both India and China has been slowing, despite accounting for more than one-third of the estimated global population.
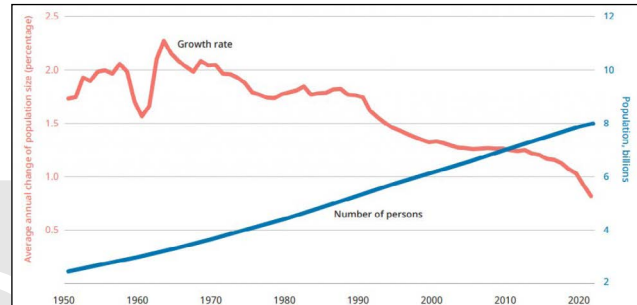
➢ **Fertility Rate:**
  ○ India's total **Fertility Rate**, was estimated at 2, lower than the world average of 2.3.
  ○ Developed regions projected a fertility rate of 1.5, less developed regions 2.4 and less developed countries 3.9.

➢ **Life Expectancy:**
  ○ The average life expectancy for an **Indian male** was projected as 71 and 74 for females.
  ○ On average, the life expectancy for males **globally** was projected to be 71 and 76 for females.
  ○ For **developed regions**, the average life expectancy for males was projected at 77 and 83 for females — the highest of all.
  ○ For **less developed regions**, the ages are 70 for males and 74 for females, while for least developed countries, it is 63 for males and 68 for females.

➢ **Gender Rights:**
  ○ Violence by an intimate partner in the last 12 months was reported by 18% of women, while 66% of women had decision-making on sexual and reproductive **health and reproductive rights in India.**
  ○ A little over 80% of women had some say in decision-making regarding their own healthcare.

Note:

➤ **Population Growth Concentrations:**
- More than half of the projected increase in global **population up to 2050** will be **concentrated in eight countries** — the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania.

What are the Recommendations?

➤ With almost half the population under 25 years of age, India has a time-bound opportunity to benefit from the **Demographic Dividend**. The focus should be **on giving women more power to control when and how they have children.**

➤ Ensuring gender equality, empowerment and **advancing greater bodily autonomy for women and girls—is one of the key determinants** of a sustainable future.

➤ Thriving and inclusive societies can be built, regardless of population size, if countries are **prepared to radically rethink how we talk about,** and plan for, population change.

➤ In high-fertility countries, empowerment through education and family planning, is known to yield enormous dividends in the form of economic growth and human capital development.

➤ All governments should **uphold human rights, strengthen pension and healthcare systems, promote active and healthy aging**, protect migrants' rights, and seek to mitigate the damaging impact of climate change.

What are the Opportunities and Drawbacks for India?

➤ **Opportunities**:
- **Demographic Dividend:**
  - India's population offers a significant advantage in terms of a large workforce, which can help drive economic growth.
  - **India's 68 % population are in the 15 to 64 years age group,** providing a significant contribution to the working or able-to-work population.
  - It certainly looks like a demographic dividend when a lot of advanced countries in the world struggle due to their population **growing old thus reducing the number of those who could work.**

- **Attracting Businesses and Innovation:**
  - With a large population, India represents a vast and growing consumer market, which can attract investments and spur domestic production.
  - India can leverage its demographic dividend to attract big businesses from Western countries which had chosen China for manufacturing.
  - A large and diverse population **can be a source of innovation, as it brings together different perspectives, ideas, and approaches.**
- **Permanent Member at Security Council:**
  - With India's growing population, India will likely claim more power and **influence on the global stage.**
  - India can claim to be a Permanent Member at **United Nations Security Council (UNSC)**.
- **Leader of Global South:**
  - The status of the most populous country will also help India claim **leadership of the global south** for which it has been striving after assuming the G20 leadership in 2022.

➤ **Drawbacks:**
- **Unemployment and Social Problems:**
  - High unemployment is a very big challenge for **India's young population**, which is compounded by the **limited availability of productive and remunerative jobs**.
    - For instance, in the civil services sector, nearly 6.5 lakh candidates compete for only 700 positions, while in the railways, thousands of youths vie for a few hundred low-ranking jobs.
    - Unemployment not only leads to economic stress but also exacerbates social problems, especially when a significant portion of the working-age population is **unable to find suitable employment.**
- **Poor Labour Force Participation:**
  - India's huge population is poor labour force participation, especially of women.
  - India's female labor force participation rate in 2021 was 19%, lower than the world average at 25.1%, and has been declining for a long.
    - Prime Minister of India aims at 50% female workforce by 2047.

Note:

○ **Poverty:**
- India's population includes a significant number of people living in poverty, which can exacerbate issues such as inequality, crime, and social unrest.

What is the UNFPA?
➢ **About:**
  ○ It is a subsidiary organ of the **UN General Assembly** and works as a sexual and reproductive health agency.
  ○ The **UN Economic and Social Council (ECOSOC)** establishes its mandate.
➢ **Establishment:**
  ○ It was established as a trust fund in 1967 and began operations in 1969.
  ○ In 1987, it was officially renamed the United Nations Population Fund but the original abbreviation, 'UNFPA' for the United Nations Fund for Population Activities was retained.
➢ **Objective:**
  ○ UNFPA works directly to tackle **Sustainable Development Goals** on health (SDG3), education (SDG4) and gender equality (SDG5).
➢ **Fund:**
  ○ UNFPA is not supported by the UN budget, instead, it is entirely supported by voluntary contributions of donor governments, intergovernmental organizations, the private sector, foundations and individuals.

Civil Union and Marriage

Why in News?

The Centre has contested the hearing of petitions seeking legal recognition of **same sex marriage** by the **Supreme Court** on the grounds of judiciary's right to confer legal recognition on the **"socio-legal institution"** of marriage.

➢ In his response to the Centre's objections, the **CJI** clarified that the hearing's scope would be limited to developing a notion of a "civil union" that finds legal recognition under the **Special Marriage Act, 1954**.

What is a Civil Union?

➢ **About:**

○ A "civil union" is a **legal status that grants same-sex couples certain rights** and responsibilities that are normally given to married couples.

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

➢ **Civil Union vs Marriage:**

○ Civil Union is a marriage like legal sanction provided to two individuals generally of same sex.

○ Marriage is a religious institution recognized by law that allows two individuals (a man and woman) to marry.

○ Since same sex marriage is outside the scope of religion-based definition of marriage, **Civil Union is a tool devised to grant similar legal protection to the couples who opt for the same sex marriage.**

➢ **Other Countries that Allow Civil Unions:**

○ **USA:** In the year 2015, the Supreme Court of the United States (SCOTUS) legalised same-sex marriages across the nation with its landmark ruling in *"Obergefell v. Hodges".*
- Prior to 2015, a majority of states in US had Civil Union laws that allowed same sex couples to marry.

○ **Sweden:** Before 2009, LGBTQ couples could apply for civil unions and enjoy benefits such as the right to adopt. Sweden legalised same sex marriages in 2009.

○ Similarly, **countries like Brazil, Uruguay, and Chile had also recognised the right of same sex couples** to enter into civil unions, even before they formally recognised their legal right to marriage.

What is the Status of Same Sex Marriages in India?

➢ Although, the Supreme Court in **Navtej Singh Johar vs Union of India** *(2018)* case decriminalised homosexuality under **Sec 377 of IPC,** but **same sex marriages are yet to get legal status in India.**

➢ Since then, several petitions have been filed before the SC and the judiciary has started hearing of such petitions and **looking up for the scope of Civil Unions under the Special Marriage Act, 1954.**

○ A marriage under the Special Marriage Act, 1954 **allows people from two different religious**

Note:

backgrounds to come together in the bond of marriage which is not allowed under personal/religious laws.

➢ **Important SC Judgements on LGBTQ Rights:**

○ **KS Puttaswamy v Union of India, 2017:** In this judgement on Right to privacy, the Supreme Court held that **Sexual Orientation of any individual comes under his/her Right to Privacy.**

● This Landmark judgement became the basis of declaring Sec 377 of IPC – under which Homosexuality was a crime – unconstitutional.

○ **Navtej Singh Johar vs Union of India, 2018:** The Supreme Court struck down the **Sec 377 of IPC** to the extent it criminalized homosexuality.

● It was also opined that there cannot be discrimination in law based on sexual orientation and gender.

○ **Deepika Singh vs Central Administrative Services, 2022:** In this case, the SC expanded the definition of a family and observed that **familial relationships may also include unmarried partnerships or queer relationships** and these atypical families should enjoy equal protection and benefits under the law.

○ Moreover, the Supreme Court in various judgements such as *Lata Singh vs State of UP (2006), Safin Jahan vs Ashokan (2018), Shakti Vahini vs Union of India (2018) and Laxmibai Chandarangi vs State of Karnataka (2021)* has held that **choosing a life partner is a Fundamental Right** under **Article 21**.

What are the Arguments Regarding Legalising Same sex marriage?

➢ **Arguments in Favour:**

○ **'Gender' has a Wider Definition:** The SC has said that here is no absolute concept of a man or a woman. It is far more complex than just their physical anatomy.

○ **Change is Fundamental Law:** Society keeps on evolving with time and laws should also evolve with the change in society.

○ **Lesser Legal Complicacies:** The personal laws need not be amended, just a wider interpretation of Special Marriage Act, 1954 would be enough to legalize same sex marriage.

○ **Upholding Equality:** Homosexual couples must also be given privacy and freedom and they must enjoy the same rights available to heterosexual couples.

● Also, they should not be treated as lesser mortals and asked to remain content just because homosexuality has been decriminalised.

➢ **Arguments Against:**

○ **Societal Acceptance:** It is argued that society may not accept that same-sex marriages ought to be on par with heterosexual marriages.

● Acceptance of any relationship by society is never dependent on legislations or judgments.

○ **Issues with Widening the Scope:** Conferring wider definition to the term 'Gender could be problematic;** if a man having a biological attribute of a man starts recognizing himself as a woman, it will be problem for the authorities **whether to treat him as a man or woman under the law.**

○ **Legal Complications:** Legalizing same sex marriage **could lead to several legal hurdles**. Like the **National Commission for the Protection of Child Rights (NCPCR)** has argued that granting legal status would go against **Juvenile Justice Act, 2015**.

● For example, Sec 5(2)A of the act prohibits a single male to adopt a girl child. This could also be problematic for a gay couple to adopt a child.

● Moreover, **marriage is under the concurrent list,** legalisation would require lots of laws to be amended.

The Status of Women in Agrifood Systems: FAO

Why in News?

Recently, the **FAO (Food and Agriculture Organization)** has released a report titled- **"The Status Of Women In Agrifood Systems"** highlighting the importance of **Gender Equality** in the **Agricultural Sector.**

What are the Key Highlights of the Report?

➢ **Gender-Based Barriers:**

○ Women make up a significant proportion of the agricultural workforce, accounting for around **40% of the global agricultural labor force.** However, women often face significant gender-based barriers that limit **their access to resources,** technology, and markets, which can impact their productivity and income.

Note:

➢ **Gaps are Unchanged:**
  ○ Even though women have gained more access to some resources, such as digital technology and financial services, over the last several years, the gaps are **either unchanged or growing in far too many areas**, especially for rural women.
    ● Since the outbreak of **Covid-19,** the gap between women's and men's **Food Security** has grown to 4.3% — with significantly **higher food insecurity among rural women.**

➢ **Additional Challenges:**
  ○ Women and girls face barriers and constraints that **men and boys do not as a consequence of rigid gender norms** and roles, unequal power dynamics and discriminatory social structures.
  ○ These impediments to women's progress are **compounded by the additional challenges posed by Climate, economic and price shocks**, conflicts and the increasing risks of **Gender-Based Violence.**

➢ **Marginalizing Roles of Women:**
  ○ Despite the importance of agri-food systems for women's livelihoods and the welfare of their families, **women's roles tend to be marginalised** and their working conditions are likely to be worse than men's — irregular, informal, part-time, low-skilled, labour-intensive and thus vulnerable.

What are the Recommendations?

➢ Closing the gender gap in agri-food systems could increase agricultural productivity by up to 4% in developing countries, which could, in turn, **boost global GDP (Gross Domestic Product) by up to 2%.** This increase in productivity and income could help to reduce **poverty and hunger and improve Food Security** and nutrition.
  ○ Closing the gender gap and empowering women would: Increase global GDP by 1%/ nearly USD 1 trillion.
    ● Gender equality in agri-food systems is essential for achieving the **Sustainable Development Goals (SDGs)**, particularly SDG 2, which aims to **end hunger, achieve food security and improved nutrition**, and promote sustainable agriculture.
    ● It is also crucial for achieving SDG 5, which aims to achieve **gender equality and empower all women and girls.**

● There is a need for policies and programs that **promote gender equality and empower women** in agriculture.
● Women need more access to and control over the livestock, water, seeds, land, technology, and finance needed to grow their livelihoods.

What is the Food and Agriculture Organization?

➢ **About:**
  ○ FAO is a specialised agency of the **United Nations** that leads international efforts to defeat hunger.
  ○ **World Food Day** is celebrated every year around the world on 16th October. The day is celebrated to mark the anniversary of the founding of the FAO in 1945.
  ○ It is one of the UN food aid organisations based in Rome (Italy). Its sister bodies are the **World Food Programme** and the International Fund for Agricultural Development (IFAD).

➢ **Initiatives Taken:**
  ○ **Globally Important Agricultural Heritage Systems (GIAHS).**
  ○ Monitors the **Desert Locust** situation throughout the world.
  ○ The **Codex Alimentarius Commission or CAC** is the body responsible for all matters regarding the implementation of the Joint FAO/WHO Food Standards Programme.
  ○ The **International Treaty on Plant Genetic Resources for Food and Agriculture** was adopted by the Thirty-First Session of the Conference of the FAO in 2001.

➢ **Flagship Publications:**
  ○ The State of World Fisheries and Aquaculture (SOFIA).
  ○ The State of the World's Forests (SOFO).
  ○ **The State of Food Security and Nutrition in the World (SOFI).**
  ○ The State of Food and Agriculture (SOFA).
  ○ The State of Agricultural Commodity Markets (SOCO).

Note:

Guidelines for Assessment of Child Suspects

Why in News?

The **National Commission for Protection of Child Rights (NCPCR)** has issued guidelines for the assessment of child suspects in heinous offenses to determine whether a child should be treated as a minor or not in criminal cases which come under the "heinous" offences category of the **Juvenile Justice (Care and Protection of Children) Act, 2015.**

What are the Guidelines?

➢ Child suspects should be assessed by a team of experts, including a child psychologist or psychiatrist, a medical doctor, and a social worker.

○ The assessment should take into account **the child's age, developmental stage, and maturity level,** as well as any history of trauma or abuse.

● The team should also consider the child's cognitive abilities and capacity to understand the charges against them.

● The **child suspects will be provided with legal aid and support** from child welfare agencies.

● The **Juvenile Justice Board (JJB)** will be responsible for conducting a preliminary assessment of the child suspect.

○ The JJB must complete this assessment w**ithin three months from the date** the child is first brought before it.

○ If the JJB determines that there is a need for a trial of the child as an adult, **it will then transfer the case to the Children's Court.** Essentially, the JJB plays a key role in the assessment process and in determining whether the case should be tried in juvenile court or adult court.

What are the Categories of Offences under the JJ Act, 2015 and their Differentiation?

➢ The JJ Act, 2015 categorizes **offences committed by children into three categories: Petty offences,** Serious offences and Heinous offences.

○ **Petty Offences** include those for which the maximum punishment under any law is **imprisonment up to three years**

○ **Serious offences** include crimes for which the punishment is a **minimum imprisonment for a term of more than three years** and not exceeding seven years.

○ **Heinous offences** include those for which th**e minimum punishment under the Indian Penal Code or any other law is imprisonment for seven years** or more,

● There is a specific provision under which initiation of an inquiry into a heinous crime is differentiated based on the age of the child, **and two essential conditions need to be met for this preliminary assessmen**t to take place:

○ The offence must be in the category of **"heinous" as defined in the Act,** and

○ The child who allegedly committed the crime must be in the age group of 16-18 years.

What is the Need for such Guidelines?

➢ **Ensure their Well-Being:**

○ Children who are accused of committing heinous offenses are **vulnerable and may require special care and attention** to ensure their physical and emotional well-being.

○ An assessment can help identify any **underlying mental health issues,** trauma, or abuse that may require intervention.

➢ **To determine their Cognitive Capacity:**

○ Children have varying levels of cognitive development, which can affect their **ability to understand the charges against them** and participate in legal proceedings.

○ An assessment can help determine their level of understanding and ensure that they are not unfairly held responsible for actions they may not fully comprehend.

➢ **Legal Decisions:**

○ Assessments of child suspects can provide **valuable information to judges and legal professionals**, who may need to make decisions about how to proceed with a case.

● For example, an assessment may help determine if a child is fit to stand trial or if alternative measures, such as rehabilitation or counseling, would be more appropriate.

Note:

What is the National Commission for Protection of Child Rights?

➢ NCPCR is a statutory body set up in **March 2007 under the Commissions for Protection of Child Rights (CPCR) Act, 2005.**

➢ It is under the administrative control of the Ministry of Women & Child Development.

➢ The Commission's mandate is to ensure that all laws, policies, programmes, and administrative mechanisms are in consonance with the child rights perspective as enshrined in the Constitution of India and also the UN Convention on the Rights of the Child.

➢ It inquires into complaints relating to a child's right to free and compulsory education under the **Right to Education Act, 2009.**

➢ It monitors the implementation of **Protection of Children from Sexual Offences (POCSO) Act, 2012.**

What are the Constitutional Provisions Related to Children?

➢ The Constitution guarantees to every child the right to live with **dignity (Article 21)**, the right to personal **liberty (Article 21), the right to privacy (Article 21)**, the right to equality (Article 14) and/or the right against discrimination (Article 15), the right against exploitation (Article 23 & 24).

  ○ Right to free and compulsory elementary education for all children in the 6–14-year age group (Article 21 A)

➢ The **Directive Principles of State Policy, and in particular Article 39(f),** cast an obligation on the State to ensure that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against moral and material abandonment.

■■■

Science & Technology

Highlights

- Civil Liability for Nuclear Damage Act 2010
- Multiple Sclerosis
- Fertiliser Consumption in India
- LockBit Ransomware
- PSLV C55 and TeLEOS-2 Satellite
- Starship
- Genetic Markers and Preterm Birth
- National Quantum Mission
- Jagadish Chandra Bose
- Electromagnetic Ion Cyclotron Waves
- India's Science and Technology Innovation Ecosystem

NATIONAL QUANTUM MISSION

Aims to put India among the top six leading nations involved in the R&D in quantum technologies

Presently, R&D works in quantum technologies are underway in the US, Canada, France, Finland, China and Austria

- **Duration:** 2023-24 to 2030-31
- **Nodal Ministry:** Ministry of Science & Technology
- **Highlights of the Mission:**
  - Four Thematic Hubs (T-Hubs) in different domains across the country
  - Wide-scale applications ranging from healthcare and diagnostics, defence, energy and data security

- Strengthening of indigenously building quantum-based computer
- Help develop magnetometers with high sensitivity in atomic systems and atomic clocks
- Support design and synthesis of quantum materials

A huge boost to National priorities like digital India, Make in India, Skill India, Stand-up India, Start-up India, Self-reliant India and SDGs

Quantum Technology

Works by using the principles of quantum mechanics (the physics of sub-atomic particles), including quantum entanglement and quantum superposition

Quantum Superposition

- The ability of a quantum system to be in multiple states simultaneously
- While digital computers store data as bits (the ones and zeros of binary), quantum computers use qubits that exist as one, zero or both at the same time
- This superposition state creates a practically infinite range of possibilities, allowing for fast simultaneous and parallel calculations

Quantum Entanglement

- It means the two members of a pair (Qubits) exist in a single quantum state
- If you change the properties of one of them, the other changes instantly
- This can be used to create a secure encryption key in quantum cryptography
- If an eavesdropper tries to intercept the transmission, the entangled state of the particles will be disturbed, making the attempt detectable

Drishti IAS

QUANTUM TECHNOLOGY: Quantum Key Distribution, Quantum Networks, Quantum Simulators, Post-Quantum Cryptography, Quantum Sensors Particle Generators Atomic Clocks, Quantum Cloud Computing, Quantum Memories Quantum Repeaters Quantum Chips, Quantum Software, Quantum Computing Quantum Annealers, Quantum Materials
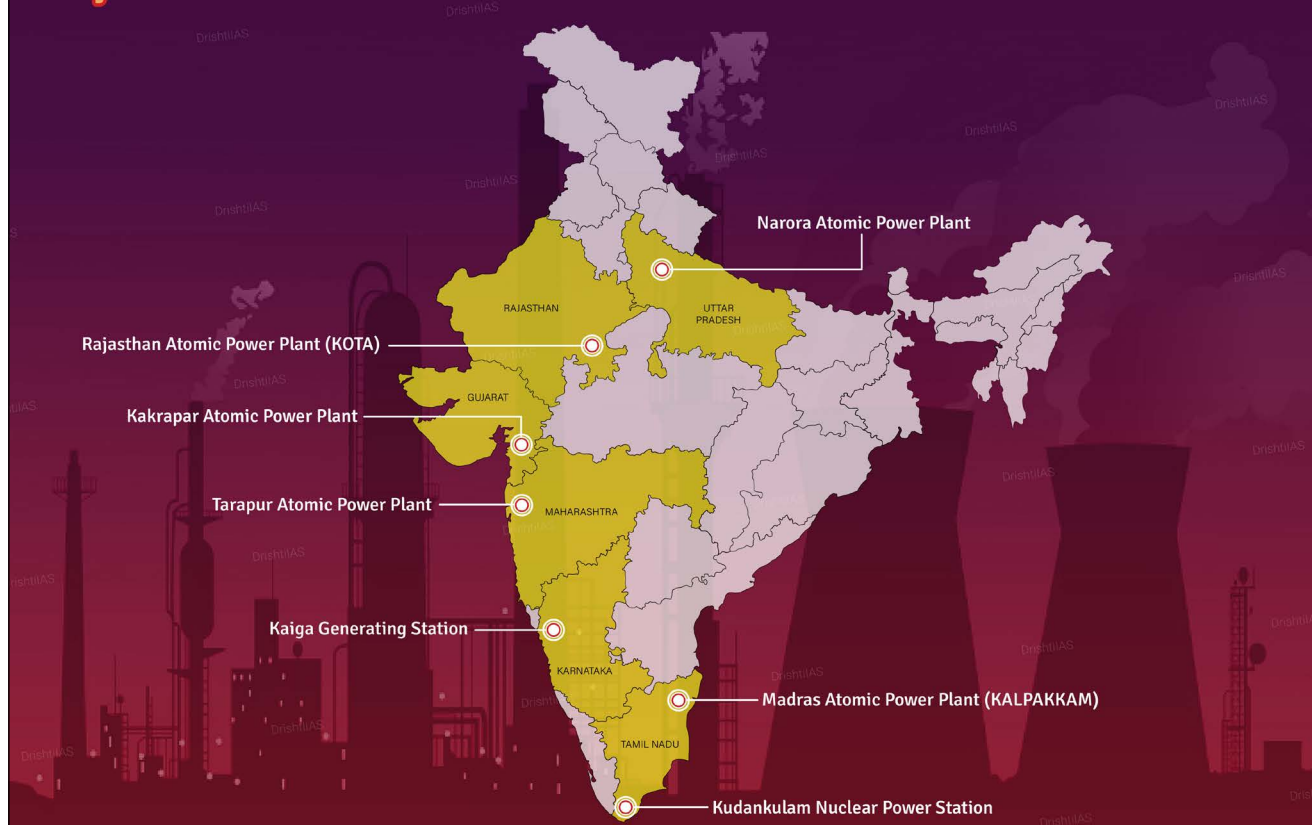
Note:

Civil Liability for Nuclear Damage Act 2010

Why in News?

The plan to build **six nuclear power reactors in Maharashtra's Jaitapur**, which is currently the **world's biggest nuclear power generation site under consideration**, has been delayed for over a decade due to issues related to **India's nuclear liability law.**

Operational Nuclear Power Plants in India

Narora Atomic Power Plant

Rajasthan Atomic Power Plant (KOTA)

Kakrapar Atomic Power Plant

Tarapur Atomic Power Plant

Kaiga Generating Station

Madras Atomic Power Plant (KALPAKKAM)

Kudankulam Nuclear Power Station

FACTS

- Presently, India has 22 nuclear power reactors operating in 6 states, with an installed capacity of 6780 MegaWatt electric (MWe).
- Activities concerning the establishment and utilization of nuclear facilities and use of radioactive sources are **carried out in India in accordance with the Atomic Energy Act, 1962**.
- Atomic Energy Regulatory Board (AERB) **regulates nuclear & radiation facilities and activities**.
- **Newest & Largest Nuclear Power Plant:** Kudankulam Power Plant, Tamil Nadu.
- **First & Oldest Nuclear Power Plant:** Tarapur Power Plant, Maharashtra.

What are the Laws on Civil Nuclear Liability?

➢ **About:**
  - Laws on civil nuclear liability ensure that compensation is available to the victims for nuclear damage caused by a nuclear incident or disaster and set out who will be liable for that damage.

➢ **International Conventions:**
  - The **IAEA** serves as depositary for several international legal instruments on civil liability for nuclear damage, these include **the Vienna Convention on Civil Liability for Nuclear Damage and the Convention on Supplementary Compensation for Nuclear Damage**.

Note:

○ The umbrella **Convention on Supplementary Compensation (CSC)** was adopted in 1997 with the aim of **establishing a minimum national compensation amount.**

● India has **ratified CSC in 2016**.

➢ **India's Civil Liability for Nuclear Damage Act (CLNDA) of 2010:**

○ **Objective:**

● India enacted the CLNDA in 2010 to put in place a speedy compensation mechanism for victims of a nuclear accident.

○ **Liability on Operator:**

● 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 specifies the amount the **operator will have to pay in case of damage caused by an accident at ₹1,500 crore**.

● It also requires the operator to cover liability through insurance or other financial security.

○ **Government's Role:**

● In case the damage claims exceed ₹1,500 crore, the CLNDA expects the government to step in.

● It has limited the government liability amount to the **rupee equivalent of 300 million Special Drawing Rights (SDRs).**

○ **Supplier Liability Clause:** Having realised that the defective parts were partly responsible for the **Bhopal gas tragedy in 1984,** the govt went beyond the provisions of CSC to provide for **supplier liability** over and above that of the operator in CLNDA.

● Under this provision, the **operator of the nuclear plant can seek recourse from suppliers in the event of a nuclear incident caused by supplier actions**, including the supply of equipment or materials with defects, sub-standard services, or the actions of supplier employees.

Note: The CSC provides for **"only" 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 or

➢ if the nuclear incident "results from an act or omission done with intent to cause damage".

Why is the Supplier Liability Clause an Issue in Nuclear Deals?

➢ **Deters Foreign and Domestic Suppliers:** Foreign as well as domestic suppliers of nuclear equipment have been wary of operationalizing nuclear deals with India as it has the only law where suppliers can be asked to pay damages.

➢ **Makes Suppliers Vulnerable:** The suppliers have raised concerns about **potentially getting exposed to unlimited liability** under CLNDA as the **compensation amount is not fixed** under the law as it has been fixed for the operator.

○ **Moreover, they also have highlighted the** ambiguity over how much insurance is to be set aside in case of damage.

➢ **Lack of Clarity involves Other Laws:** In the **absence of a comprehensive definition on the types of 'nuclear damage'**, the act potentially allows civil liability claims to be brought against the operator and suppliers through other civil laws.

➢ **Attracts Criminal Liability:** The Act **does not prevent a person from bringing proceedings against the operator under any law other than this Act**. It allows criminal liability to be pursued against the operator and the supplier wherever applicable.

What are the Other Issues with CLNDA?

➢ **Monetary Capping on Compensation:** The act fixes the liability to a certain monetary limit **(for operators: ₹1,500 crore, for government: rupee equivalent of 300 mn SDRs).** The biggest problem with such capping is the situations when the damage exceeds the limit.

○ The Act does not expressly provide for any provision with respect to cost of damages exceeding the limit.

➢ **Burden on Taxpayers:** In India, these plants **are state owned and operated through NPCIL** and so ultimately the responsibility for such disasters will be borne by common taxpayers.

➢ **Neglect of the Additional Costs:** Past incidents such as Chernobyl have shown that the party at fault for a nuclear incident must bear additional costs such as cleaning up and safe disposal of nuclear waste, which are expensive and require caution.

○ However, the Act does not provide any provision for these additional costs.

Note:

- **No Foreign Jurisdiction:** India takes supplies from many foreign suppliers which are foreign entities to Indian Law. **Indians can't move to a foreign court to seek compensation.**

Multiple Sclerosis

Why in News?

Recently, Scientists have **fabricated monolayers of pure Myelin Basic Protein (MBP).**

➢ **MBP is a major protein component of the myelin sheath**, a protective membrane that wraps around the axon of **nerve cells** and acts as a **model protein in studying diseases like multiple sclerosis (MS).**

What is Multiple Sclerosis?

➢ **About:**
  ○ Multiple Sclerosis (MS) is a **chronic autoimmune disease** that affects the **central nervous system (CNS).**
    - In MS, the immune system attacks and damages the **myelin sheath**, a protective covering that surrounds the **nerve fibers in the brain and spinal cord, causing a range of symptoms.**

➢ **Symptoms:**
  ○ **Muscle weakness** and Numbness
    - **Bladder Problems:** A person may have difficulty emptying their bladder or need to urinate frequently or suddenly
    - **Bowel problems, Fatigue, Dizziness,** and **damaged nerve fibers** in the spinal cord.
  ○ Since symptoms are common, people don't often recognise the disease early and often takes many years for someone to be diagnosed, as it is impossible to determine a specific cause or trigger.

➢ **Causes:**
  ○ The exact cause of the disease is unknown, but it could be a combination of:
    - **Genetic factors:** Susceptibility may pass down in the genes
    - **Smoking and Stress**
  Vitamin D and B12 deficiency

Multiple Sclerosis
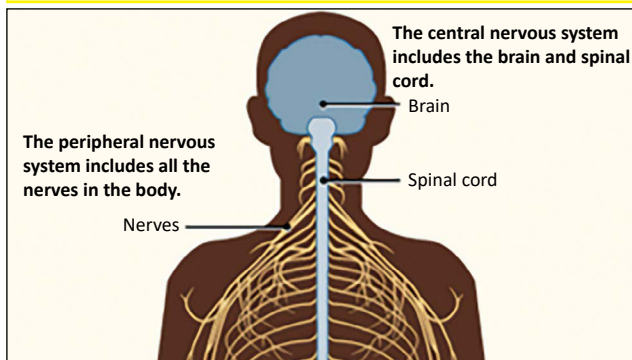
Healthy neuron · Nerve affected by MS
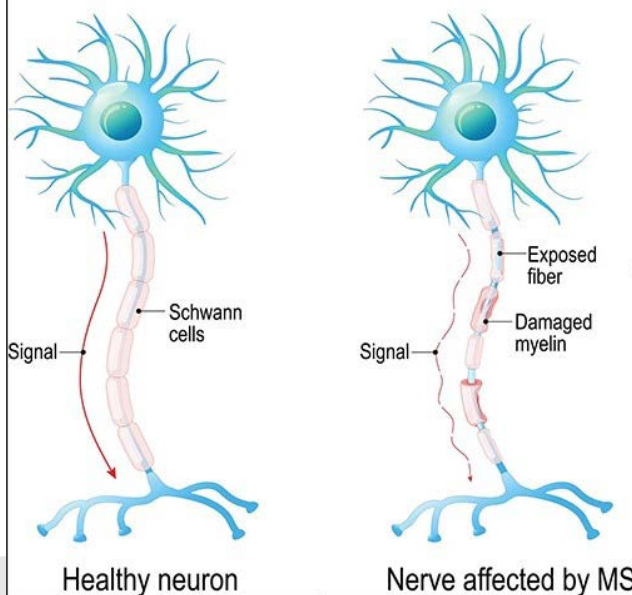
What are the Key Highlights from the Research?

➢ **Understanding the Behaviour of Protein under Variable pH Conditions:**
  ○ The researchers studied how the protein behaved in different levels of acidity, by looking at different parts of the layer formed on top of the water.
  ○ They found that the **stiffness of the layer was related to the specific patterns formed and the space they occupied on the water surface.**

➢ **Fabricated MBP Layer:**
  ○ The researchers have created a tightly packed layer of MBP using Langmuir-**Blodgett (LB) technique**.
    - **The Langmuir-Blodgett (LB) technique is a process used to create monolayers of molecules, including proteins, at air-water and air-solid interfaces.**
  ○ This layer can be used to study the **different properties of MBP in 2D and how it interacts with other proteins.**
    - The researchers also found that the **layer can act as a template for other proteins to crystallize on,** which can help in **studying their structures.**
  ○ Overall, this research helps us better understand the role of MBP in our bodies and how it interacts with other molecules.

Note:

The central nervous system includes the brain and spinal cord.
— Brain
— Spinal cord

The peripheral nervous system includes all the nerves in the body.
Nerves —

Fertiliser Consumption in India

Why in News?

The Indian government has implemented several measures to promote balanced fertilisation. Despite these efforts, the consumption of urea has risen, leading to **imbalanced fertilisation, decreased nitrogen use efficiency,** and a **decline in crop yield response to fertiliser use.**

What Measures have been taken to Promote Balanced Fertilisation?

➢ **Initiatives:**
  ○ In 2015, Indian government mandated **neem-coating of all urea**
  ○ Govt introduced 45kg urea bags in place of 50kg to cut demand in 2018
  ○ **Indian Farmers Fertiliser Cooperative Limited (IFFCO)** launched liquid **'Nano Urea'** in 2021.

● More recently, **first Liquid Nano Urea (LNU) plant was inaugurated at Kalol, Gujarat.**
  ■ LNU is urea in the form of a nanoparticle and is developed to **replace conventional urea and curtail its requirement by at least 50%.**
➢ **Impact of the Measures Taken:**
  ○ Initially, the use of **neem-coated urea led to a dip in consumption,** making it difficult for urea to be used for non-agricultural purposes.
  ○ However, this **trend reversed from 2018-19.** Urea sales in 2022-23 were about 5.1 mt higher than in 2015-16 and over 9 mt higher than in 2009-10, before the introduction of the **Nutrient-Based Subsidy (NBS)** regime in April 2010.

Why does Urea Continue to be the Dominant Fertiliser?

➢ **Favourable Characteristics:** Urea is the most widely used fertilizer because it is a **rich source of nitrogen, an essential nutrient for plant growth.**
  ○ Urea is a **readily available and affordable** nitrogen source for farmers, making it a popular choice.
  ○ It can also be **easily stored and transported,** making it a convenient choice for both farmers and manufacturers.
    ● Urea is also a **versatile fertilizer that can be applied to a wide range of crops and soil types.**
➢ **Heavy Subsidy:** In India, urea is the **most produced, imported, consumed and physically regulated** fertiliser of all.
  ○ **Urea consumption rose by over a third since 2009-10;** this has been largely courtesy of its MRP going up by a mere 16.5% – from Rs 4,830 to **Rs 5,628 per tonne.**
  ○ This current per-tonne MRP for urea against DAP (Rs 27,000) and MOP (Rs 34,000) is **nowhere compatible with a 4:2:1 NPK use ratio generally considered ideal for Indian soils.**

What is the Nutrient-based Subsidy (NBS) regime?

➢ **Targeted Beneficiaries:**
  ○ The NBS regime is aimed at benefiting farmers across the country, especially **small and marginal farmers** who may not be able to afford fertilizers at market rates.

Note:

d drishti

Nutrient Based Subsidy Scheme

About:
- A fixed rate of subsidy (in ₹per Kg) decided on an annual basis
- Being implemented since 2010

Implemented by:
- Department of Fertilisers, Ministry of Chemicals & Fertilizers

Ambit of NBS:
- Given on nutrients - Nitrogen, Phosphate, Potash and Sulphur
- For Phosphatic and Potassic (P&K) fertilisers
- Doesn't include Urea based fertilisers
- NBS is available for imported complex fertilisers except Ammonium Sulphate

Aim:
- Ensure the availability of fertilisers to farmers at an affordable price
- Increase consumption of P&K fertilizers to achieve optimum NPK ratio (4:2:1)

Fertilisers in India:
- 3 basic fertilisers – Urea, Diammonium Phosphate (DAP), and Muriate of Potash (MOP)
- Urea is the most – produced, consumed, imported and physically regulated fertiliser of all
- Urea is subsidised only for agricultural uses

Nutrient	Main Source
Nitrogen (N)	Urea
Phosphorus (P)	DAP
Potassium (K)	MOP

- The scheme provides subsidies to farmers based on their fertilizer requirements, and the subsidy amount is **directly transferred to their bank accounts.**

➢ **Benefits:**
- It helps in improving **soil fertility and crop productivity.**
- Reduces the **cost of cultivation** for farmers by providing fertilizers at subsidized rates.
- Improves the **quality of agricultural produce**, which can help farmers get **better prices for their crops in the market.**
- It helps in **conserving soil health** and reducing the **environmental impact** of excessive use of fertilizers.

➢ **Failure of NBS:**
- **Urea is left out of the scheme** and hence it remains under price control. There is technically **no price control on other fertilisers**.
  - The prices of the other fertilizers which were **decontrolled have gone up** which has led the farmers to **use more urea than before.**
  - This has further worsened **fertilizer imbalance.**
    - Price controls on **DAP** have been reintroduced, with companies not allowed to **charge more**

than Rs 27,000 per tonne. This has led to the sales of both **urea and DAP soaring in 2022-23.**

What is the Cost of Imbalanced Fertilisation?

➢ **Reduced Crop Yields and Quality:**
- Applying too little or too much fertilizer can lead to **reduced crop yields** and quality, resulting in **financial losses for farmers**.

➢ **Soil Degradation:**
- Imbalanced fertilization can lead to **nutrient imbalances in the soil,** leading to **soil degradation, erosion, and loss of soil fertility** over time.

➢ **Environmental Pollution:**
- Overuse of fertilizers can lead to the leaching of excess nutrients, such as nitrogen and phosphorus, into water bodies, **causing eutrophication, algal blooms, and other environmental problems.**

➢ **Health Risks:**
- Excessive use of fertilizers can result in the accumulation of nitrates in crops, which can be **harmful to human health if consumed in large quantities.**

LockBit Ransomware

Why in News?

Recently, it has been found that **LockBit ransomware** was found to be targeting Mac devices.

➢ Earlier in January 2023, the LockBit gang was reportedly behind a **cyber-attack on U.K**. postal services, causing international shipping to grind to a halt.

➢ A **ransomware** is a type of **malware that hijacks computer data and then demands payment** (usually in bitcoins) in order to restore it.

What is LockBit Ransomware?

➢ **About:**
- LockBit, formerly known as "ABCD" ransomware, is a type of computer virus that **enters someone's computer and encrypts important files** so they can't be accessed.
  - The virus first appeared in September 2019 and is called a **"crypto virus"**, because it asks for payment in cryptocurrency to unlock the files.

Note:

○ LockBit is usually used to attack companies or organizations **that can afford to pay a lot of money to get their files** back.

○ The people behind LockBit have a website on the dark web where they recruit members and **release information about victims who refuse to pay.**

○ LockBit has been used to target companies in many different countries, including **the U.S., China, India, Ukraine, and Europe.**

➢ **Modus Operandi:**

○ It hides its harmful files by making them **look like harmless image files.** The people behind LockBit trick people into giving them access to the company's network by pretending to be someone trustworthy.

○ Once they're in, LockBit disables **anything that could help the company recover their files and puts a lock on all the files** so that they can't be opened without a special key that only the LockBit gang has.

○ Victims are then left with no choice but to contact the LockBit gang and pay up for the data, which the gang may sell on the dark web - whether the ransom is paid or not.

➢ **LockBit Gang:**

○ The LockBit gang is a group of **cybercriminals** who use a **ransomware-as-a-service model** to make money.

○ They create custom attacks for people who pay them and then split the ransom payment with their team and affiliates.

● They are known for being very prolific and avoiding attacking Russian systems or countries in the **Commonwealth of Independent States** to avoid getting caught.

Why is LockBit targeting macOS?

➢ LockBit is targeting macOS as a way to expand the scope of their attacks and potentially **increase their financial gains.**

○ While historically ransomware has mainly targeted **Windows, Linux, and VMware ESXi servers**, the gang is now testing encryptors for macOS.

● The current encryptors were not found to be fully operational, but it is believed that the **group is actively developing tools to target macOS**.

● The ultimate goal is likely to make more money from their ransomware operation by targeting a wider range of systems.

What are the Recent Instances of Cyberattacks in India?

➢ India has been facing a significant increase in ransomware attacks, with approximately 82% of companies impacted in 2020.

➢ Several high-profile attacks have occurred in recent years, including the **WannaCry attack** in 2017, a data breach at Juspay that affected 35 million customers, including those of Amazon in 2021, and more recently a **ransomware attack on AIIMS Delhi in Dec 2022**.

○ **In 2022, Air India suffered a major cyberattack**, compromising 4.5 million customer records, including passport, ticket, and credit card information.

What are the Present Government Initiatives Related to Cyber Security?

➢ **Indian Cyber Crime Coordination Centre (I4C)**

➢ **Indian Computer Emergency Response Team (CERT-In)**

➢ **Cyber Surakshit Bharat**

➢ **Cyber Swachhta Kendra**

How to Protect against LockBit Ransomware?

➢ **Strong Passwords:**

○ Account breaches often happen because of weak passwords that are easy for hackers to guess or for algorithm tools to crack. To protect oneself, choose strong passwords that **are longer and have different types of characters.**

➢ **Multi-Factor Authentication:**

○ To prevent brute force attacks, use additional **security measures like biometrics (such as fingerprint or facial recognition)** or physical USB key authenticators along with your passwords when accessing your systems.

● Brute force attacks are a type of cyber-attack where **attackers try to guess a password by repeatedly trying different combinations** of characters until they find the right one.

Note:

➢ **Reassess Account Permissions:**
  ○ Limiting user permissions to stricter levels is important to reduce security risks. This is especially critical for IT accounts with administrative access and for resources accessed by endpoint users.
  ○ Ensure that web domains, **collaborative platforms, web meeting services**, and enterprise databases are all secured.

➢ **System-wide Backups:**
  ○ To protect against permanent data loss, it's important to **create offline backups of your important data.**
  ○ Make sure to periodically create backups to ensure that you have an up-to-date copy of your systems. Consider having multiple backup points and rotating them, so you can select a clean backup in case one becomes infected with malware.

PSLV C55 and TeLEOS-2 Satellite

Why in News?

Recently, **ISRO (Indian Space Research Organization)** has successfully launched the **PSLV (Polar Satellite Launch Vehicle)-C55/TeLEOS-2 mission** from the Satish Dhawan Space Centre, Sriharikota in Andhra Pradesh.


What is the PSLV C55/TeLEOS-2 Mission?

➢ **About:**
  ○ This is the 57th flight of PSLV and 16th mission using the PSLV Core Alone configuration (PSLV-CA).
  ○ It is a dedicated commercial mission through **NSIL (NewSpace India Limited)** with **TeLEOS-2** as primary satellite and **Lumelite-4 as a co-passenger satellite,** both belonging to Singapore.
  ○ The scientists used **PSLV Orbital Experimental Module-2 (POEM-2) as an orbital platform** to carry out the scientific experiments through non-separating payloads carried by it.

➢ **TeLEOS-2:**
  ○ It is an **Earth Observation Satellite (EOS)** and will be the **primary satellite being carried by the rocket.**
    ● In 2015, ISRO launched TeLEOS-1, which was launched into a low Earth orbit for remote sensing applications. **ISRO has so far launched nine satellites belonging to Singapore.**
  ○ TeLEOS-2 carries a **Synthetic Aperture Radar (SAR)** payload capable of imaging at **1m full-polarimetric resolution.** It will be able to provide all-weather day and night coverage.
    ● SAR is a type of active radar imaging technology that **uses the motion of the radar antenna to create a high-resolution 3D image** of the target area.
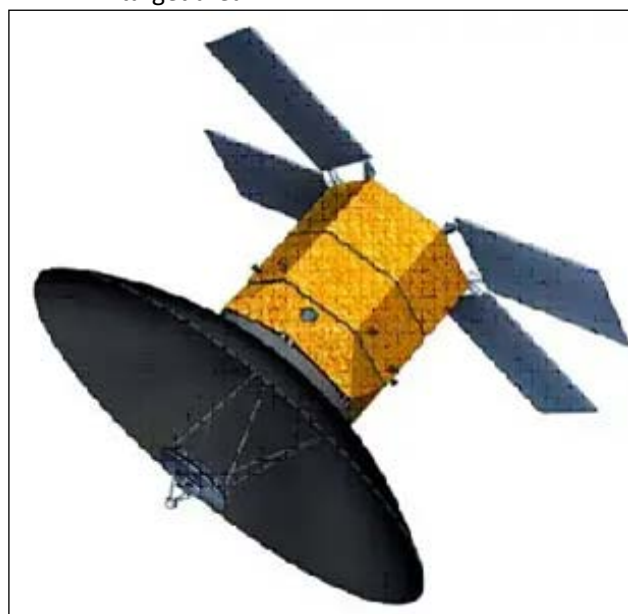
Note:

➢ **LUMILITE-4:**

○ It is an advanced **12U satellite developed for the technological demonstration** of the High-Performance Space-borne VHF Data Exchange System (VDES).

● "12U" refers to a standardized form factor for CubeSats, which are small satellites with a modular design.

● In the 12U form factor, the CubeSat measures 24 x 24 x 36 cm and has a volume of 20.7 liters.

○ It **aims to augment Singapore's e-navigation maritime safety** and benefit the global shipping community.

○ It is the co-passenger satellite being sent along with TeLEOS-2
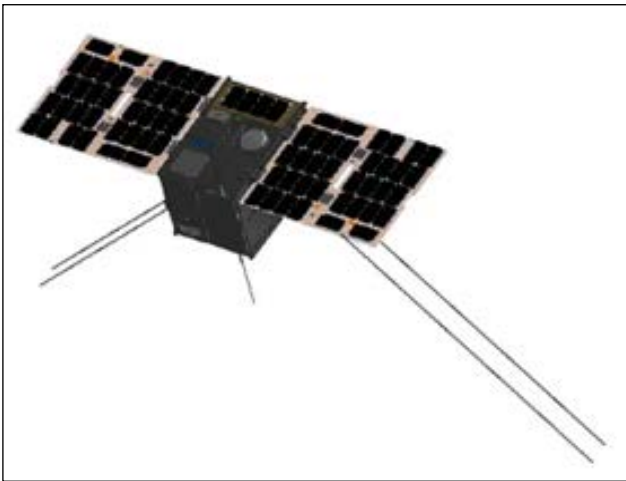
### What is POEM?

➢ POEM is an **experimental mission by ISRO** which performs in-orbit scientific experiments during the 4th stage of the PSLV launch vehicle as an orbital platform.

○ The PSLV is a four-stage rocket where the first three spent stages fall back into the ocean, and the final stage (PS4) — after launching the satellite into orbit — ends up as space junk.

➢ POEM has a dedicated **Navigation Guidance and Control (NGC)** system for attitude stabilization, which stands for controlling the orientation of any aerospace vehicle within permitted limits.

○ The NGC will act as the platform's brain to stabilize it with specified accuracy.
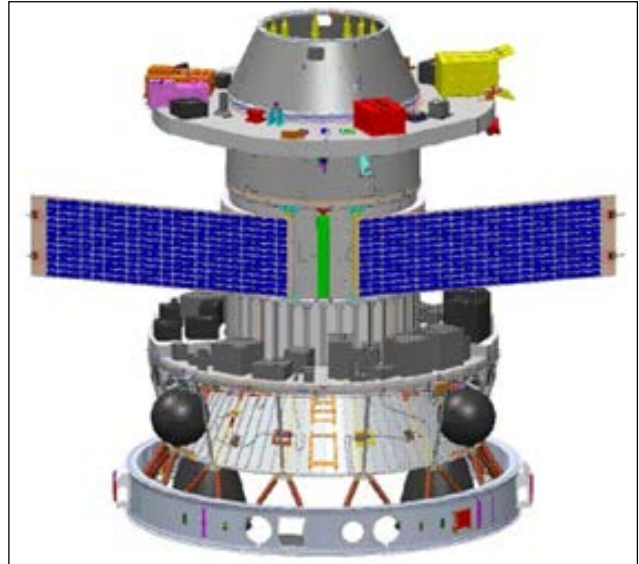
Starship

Why in News?

Recently, **SpaceX** launched an **uncrewed test flight** of its **Starship cruise vessel** from the Super Heavy rocket. However, the **vehicle exploded when the upper-stage Starship** failed to separate from the **lower-stage Super Heavy**.

➢ **SpaceX is a private company founded in 2002** by Elon Musk.

What is the Starship Project?

➢ SpaceX's **Starship spacecraft and Super Heavy rocket** – collectively referred to as **Starship** – represent **a fully reusable transportation system** designed to carry both crew and cargo to **Earth orbit, the Moon, Mars and beyond.**

○ Starship will be able to carry up to **150 metric tonnes fully reusable and 250 metric tonnes expendable.**

● **Starship Super Heavy** is powered by an array of Raptor engines, which are fueled by **liquid methane (CH4) and liquid oxygen (LOX).**

■ A total of **33 Raptor engines power the first-stage booster**.

➢ It leverages **tanker vehicles** (essentially the Starship spacecraft minus the windows) to refill the Starship spacecraft in **low-Earth orbit.**

➢ Development and manufacturing of Starship takes place at **Starbase**, one of the world's **first commercial spaceports designed for orbital missions.**

Note:

What are the other Major Projects of Space X?

➢ **Falcon 9:**
  ○ **Falcon 9** is a **reusable, two-stage rocket for the reliable and safe transport of people and payloads into Earth orbit** and beyond.

➢ **Falcon Heavy:**
  ○ SpaceX claims **Falcon Heavy** to be the most powerful rocket in the world by a factor of two.
  ○ It is composed of **three Falcon 9 nine-engine** cores whose 27 Merlin engines **together generate more than 5 million pounds of thrust** at liftoff.
    ● Merlin engines use a **rocket grade kerosene (RP-1) and liquid oxygen** as rocket propellants in a **gas-generator power cycle.**

➢ **Starlink and Starshield:**
  ○ **Starlink** provides high-speed, low-latency broadband internet across the globe.
    ● Its high-speed, low-latency service is made possible via the **world's largest constellation of highly advanced satellites** operating in a low orbit around the Earth.
  ○ **Starshield leverages Starlink technology** and launch capability to support national security efforts.
    ● While Starlink is **designed for consumer and commercial use, Starshield is designed for government use.**

What are India's Efforts in Commercialisation of Space?

➢ **Skyroot's Vikram S** series and **Dhawan engines**
➢ **Draft Spacecom Policy** 2020
➢ **IN-SPACE**
➢ **NewSpace India Limited (NSIL)**
➢ **Indian Space Association (ISpA)**
➢ **Antrix Corporation Limited (ACL)**

Genetic Markers and Preterm Birth

Why in News?

Recently, Indian scientists working in the **Garbh-Ini program** have identified **19 genetic markers** associated with **preterm birth,** a major cause of **Neonatal deaths** (deaths among live births during the first 28 completed days of life) and complications globally.

➢ The identification of **genetic markers associated with preterm birth** could help in **predicting high-risk pregnancies** and monitoring them closely, leading to improved **maternal and neonatal outcomes.**

What is Preterm Birth?

➢ **About:**
  ○ Preterm birth, also known as premature birth, refers to the **birth of a baby before the completion of 37 weeks of gestation**. There are sub-categories of preterm birth, based on gestational age:
    ● **Extremely preterm (less than 28 weeks)**
      ■ **Very preterm (28 to 32 weeks)**
      ■ **Moderate to late preterm (32 to 37 weeks).**
  ○ It is a **significant public health issue,** especially in **India and Southeast Asia**, and is associated with delayed mental and physical development in infants and increased risks of diseases in adulthood.
  ○ Globally, **one in every 10 births is preterm**.
    ● Also, of all babies born annually in India, **about 13% are born preterm.** Globally, **India accounts for 23.4% of preterm births.**

➢ **Fatality:**
  ○ Preterm babies are **two to four times at higher risk of death** after birth in comparison to those born after 37 weeks of gestation.
  ○ When these babies become adults, they also become at higher risk of **diseases such as Type-2 diabetes, hypertension and cancer.**

What are Genetic Markers?

➢ **About:**
  ○ Genetic markers, also known as **DNA markers or genetic variants**, are specific **sections of DNA that are associated with particular traits**, characteristics, or conditions.
  ○ Genetic markers can be **either DNA sequences or specific variations in the DNA sequence**, such as **single nucleotide polymorphisms (SNPs),** which are the most common type of genetic marker.

➢ **Significance:**
  ○ They are **used in genetics research and clinical practice to identify and study genetic variations** that may be linked to **diseases, disorders, or other biological traits**.

Note:

❍ These SNPs are known to regulate important **biological processes** such as **inflammation, apoptosis, cervical ripening, telomere maintenance, selenocysteine biosynthesis, myometrial contraction, and innate immunity.**

Garbh-Ini

➢ **Garbh-Ini (Interdisciplinary Group for Advanced Research on Birth Outcomes—DBT India Initiative)** was initiated by the **Department of Biotechnology (DBT),** in 2014 as a collaborative interdisciplinary program.

    ❍ This program is led by **Translational Health Science and Technology Institute (THSTI),** NCR Biotech cluster, Faridabad.

    ❍ It aims to elucidate **biological and non-biological risks of preterm birth (PTB)** to create **important knowledge-driven interventions** and technologies that can be sustainably implemented in clinical practice and in the community for this disease.

National Quantum Mission

Why in News?

Recently, the union cabinet chaired by the Prime Minister has approved the National Quantum Mission (NQM) to aid scientific and industrial research and development in quantum technology.

What is National Quantum Mission?

➢ **About:**

    ❍ It'll be implemented by **the Department of Science & Technology (DST)** under the Ministry of Science & Technology.

    ❍ The mission **planned for 2023-2031** aims to seed, nurture, and scale up scientific and industrial R&D and create a vibrant & innovative ecosystem in **Quantum Technology (QT).**

    ❍ With the launch of this mission, **India will be the seventh country to have a dedicated quantum mission** after the US, Austria, Finland, France, Canada and China.

➢ **Salient features of NQM:**

    ❍ It will target developing **intermediate scale quantum computers with 50-100 physical qubits in 5 years** and **50-1000 physical qubits in 8 years.**

● Just like bits (1 and 0) are the basic units by which computers process information, **'qubits' or 'quantum bits' are the units of process by quantum computers.**

❍ The mission **will help develop magnetometers** with high sensitivity for precision timing (atomic clocks), communications, and navigation.

❍ It will also support design and synthesis of quantum materials such as **superconductors, novel semiconductor structures** and topological materials for **fabrication of quantum devices.**

❍ The mission will also help developing:

    ● **Satellite based secure quantum communications** between ground stations over a range of 2000 km within India.

    ● **Long distance secure quantum communications** with other countries

    ● **Inter-city quantum key distribution** over 2000 km

    ● **Multi-node Quantum network** with quantum memories

❍ **Four Thematic Hubs (T-Hubs)** would be set up in top academic and National R&D institutes on the domains of Quantum Technology:

    ● **Quantum computation**

    ● **Quantum communication**

    ● Quantum Sensing & Metrology

    ● Quantum Materials & Devices

➢ **Significance:**

❍ This will **accelerate QT led economic growth** and make India one of the leading nations in the development of Quantum Technologies & Applications (QTA) ranging from healthcare and diagnostics, defence, energy and data security.

❍ It will work towards **indigenously building quantum-based computers which are far more powerful** and are able to solve the most complex problems in a highly secure manner.

What is Quantum Technology?

➢ **Quantum technology** is a field of science and engineering that deals with the principles of quantum mechanics, which is the study of the behaviour of matter and energy at the smallest scale.

    ❍ Quantum mechanics is the branch of physics that describes the behavior of matter and energy at the atomic and subatomic level.

Note:

What are the Advantages of Quantum Technology?

➢ **Increased Computing Power:** Quantum computers are very much **faster than the computers we today have**. They also have the capability to solve complex problems that are currently beyond our reach.

➢ **Improved Security:** Because they rely on principles of quantum mechanics, **quantum encryption techniques are much more secure** than traditional encryption methods.

➢ **Faster Communication:** Quantum communication networks **can transmit information faster and more securely** than traditional networks, with the potential for completely unhackable communication.

➢ **Enhanced AI:** Quantum machine learning algorithms can potentially enable **more efficient and accurate training of Artificial Intelligence models**.

➢ **Better Sensing and Measurement:** Quantum sensors can detect extremely small changes in the environment, making **them useful in areas such as medical diagnostics, environmental monitoring, and geological exploration.**

What are the Disadvantages of Quantum Technology?

➢ **Expensive:** The technology requires specialized equipment and materials which make it more expensive than the traditional technologies.

➢ **Limited Applications:** Currently, quantum technology is **only useful for specific applications** such as cryptography, quantum computing, and quantum communication.

  ❍ **Sensitivity to Environment:** Quantum technology is **highly sensitive to environmental interference**, such as temperature changes, magnetic fields, and vibrations.

  ● Qubits are easily disrupted by their surroundings which can cause them to **lose their quantum properties and make mistakes in calculations.**

  ● **Limited Control:** It is difficult to control and manipulate quantum systems**. Quantum-powered AI could create unintended consequences.**

  ❍ Quantum-powered AI systems could potentially arrive at conclusions that are unexpected or difficult to explain as they operate on principles that are fundamentally different from classical computing.

Jagadish Chandra Bose

Why in News?

Researchers from **Tel Aviv University have discovered that plants make distinct, high-pitched sounds in the ultrasonic range when faced with stress**, such as needing water.

➢ This discovery is seen as **a logical extension of the work of Indian scientist Jagadish Chandra Bose,** who demonstrated that plants could experience sensations and feel pleasure and pain, highlighting the continued relevance of his work in modern science.

What is Bose's most Significant Contribution to the Study of Plants?

➢ Bose demonstrated that plants could feel pleasure and pain, just like animals.

➢ He used his skills as a physicist **to build sensitive instruments that could detect even the weakest signals from plants.**

➢ He studied the biology of plant movements, feelings, and the nervous system. He is credited with using the **word "feelings" to describe the way that plants react to touch, although some scientists argue that this is a matter of semantics.**

Who was Jagdish Chandra Bose?

➢ **About:**
  ❍ Born on 30th November 1858 to Bama Sundari Bose and Bhagawan Chandra, Bengal.
  ❍ He was a **Plant Physiologist and physicist** who invented the **crescograph,** a device for measuring the growth of plants. He for the first time demonstrated that plants have feelings.

➢ **Education:**
  ❍ He earned a **BSc from University College London,** which was connected with the University of London in 1883, and a BA (Natural Sciences Tripos) from the University of Cambridge in 1884.

➢ **Scientific Contribution:**
  ❍ He was a biologist, physicist, botanist and an early writer of science fiction.
  ❍ Bose discovered **wireless communication and was named the Father of Radio Science** by the **Institute of Electrical and Electronics Engineering.**

Note:

- Bose is widely believed to be the **first one to generate electromagnetic signals in the microwave range.**
- He was responsible for the **expansion of experimental science in India.**
- Bose is **considered the father of Bengali science fiction.** A crater on the moon has been named in his honour.
- He founded **Bose Institute**, a premier research institute of India and also one of its oldest. Established in 1917, the Institute was the **first interdisciplinary research centre in Asia.**
- ➢ **Books:**
  - His books include **Response in the Living and Non-Living (1902) and The Nervous Mechanism of Plants (1926).**
- ➢ **Death:**
  - He died on 23rd November 1937 in Giridih, Bihar.

Electromagnetic Ion Cyclotron Waves

Why in News?

Scientists have identified **Electromagnetic Ion Cyclotron (EMIC) waves,** a form of **plasma waves** in the **Indian Antarctic station, Maitri.**

- ➢ These waves play an important role in **precipitation of killer electrons** (electrons having speed close to **speed of light,** which **form the radiation belt of planet Earth**), which are hazardous to **space-borne technology/instruments.**
- ➢ The study can help understand the **impact of energetic particles** in the radiation belts on the **low orbiting satellites.**

What are Electromagnetic Ion Cyclotron Waves?

- ➢ The **EMIC waves** are the **discreet electromagnetic emissions** observed in the Earth's magnetosphere.
- ➢ These waves are **generated in the equatorial latitudes** and propagate along magnetic field lines to its footprint in the high latitude ionosphere.
- ➢ Their signatures can be **recorded in both space as well as ground-based magnetometers.**

Magnetosphere

- ➢ **Magnetosphere** is the cavity in which the Earth lies and stays **protected from the wrath of the Sun.**
- ➢ It is formed by the **interaction between Earth's magnetic field and the solar wind**, which is a **continuous stream of charged particles,** mainly electrons and protons, flowing from the Sun.
  - **Earth's magnetic field** is generated by the motion of **molten iron in its outer core.**

Magnetometer

- ➢ A magnetometer is a **scientific instrument used to measure the strength and direction of magnetic fields**.
- ➢ It can be used to study the **Earth's magnetic field**, as well as magnetic fields of other celestial bodies, such as planets, moons, stars, and galaxies.
  - **Magnetometers work based on the principles of electromagnetic induction** or magnetoresistance.

What are Plasma Waves?

- ➢ **About:**
  - 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.**
    - **Our Sun, solar wind, the interplanetary medium, near-Earth region, magnetosphere**, and the upper part of our atmosphere all consist of plasma.
- ➢ **Application:**
  - **Plasma waves** have significant applications in various fields, including **astrophysics**, **space science, plasma physics, and communication technology**.
    - For example: they are involved in the **generation of auroras**
  - The study of plasma waves also provides us with information on **regions inaccessible to us, transport mass and energy across different regions, how they interact with charged particles** and control the overall dynamics of the **Earth's magnetosphere.**

India's Science and Technology Innovation Ecosystem

Why in News?

Recently, **YUVA Portal was launched to connect and identify potential young start-ups** in India's **science and technology innovation ecosystem.**

➢ **"One Week - One Lab"** campaign was launched earlier. **Astronomy** lab in Haryana's **Karnal** was also launched, which provides opportunities for **people with disabilities to excel in various forms of skill, art, and craft.**

What are the Recent Developments in India's S&T Innovation Ecosystem?

➢ **About**:
  ❍ India is leading global excellence in **technology, innovation, and start-ups,** as emphasised by the Prime Minister's recent address at the **108th Indian Science Congress.**
  ❍ India is ranked 40th out of 132 among the top innovative economies globally as per the **Global Innovation Index (GII) 2022**.

➢ **Indian Sign Language AstroLab:**
  ❍ The **Indian Sign Language** AstroLab, equipped with **65 pieces of equipment including a large telescope and audiovisual aids**, offers virtual access to educational videos in Indian sign language, promoting inclusivity and accessibility.

➢ **CSIR-NPL:**
  ❍ **Council of Scientific and Industrial Research (CSIR)-**

National Physical Laboratory (CSIR-NPL) has played a role as the **custodian of Indian Standard Time (IST),** generated using an atomic time scale consisting of Cesium atomic clocks and Hydrogen masers and in **standardising measurements of gas and airborne particles** for monitoring atmospheric pollution.
  ❍ The **CSIR Labs** specialise in various areas of **research, from genome to geology,** food to fuel, minerals to materials, and more, contributing to India's scientific and technological advancements.
  ❍ NPL conducts **multidisciplinary R&D to establish futuristic quantum standards and** upcoming technologies, develops import substitutes under the "**Make in India**" program, and provides training under the "Skill India" program.

➢ **One Week - One Lab Campaign:**
  ❍ **"One Week - One Lab"** program aims to create awareness about the technologies and services offered by **CSIR-NPL,** provide solutions to **societal problems, and develop scientific temperament among students.**
    ● **180 schools in Delhi-NCR have been exposed to NPL labs** for different activities, and more schools will be included in future interactions.

➢ **Science and Heritage Research Initiative (SHRI)**
  ❍ Under the **SHRI program**, the **sound proofing qualities of Pattamadai mat**, a mat made by **weaving or interlacing korai grass with the cotton threads**, has been explored for **use in noise guarding classrooms as well as recording studios** against external noise disturbances.
    ● This can increase the demand for this **traditional art of Tirunelveli, Tamil Nadu.**

➢ **Institute of Advanced Study in Science and Technology (IASST):**
  ❍ Scientists from the **IASST** have developed **biodegradable, biopolymer nanocomposite** which can detect relative humidity and can find **application as smart packaging materials, especially for the food industry.**

➢ **National Initiative for Developing and Harnessing Innovations (NIDHI):**
  ❍ It is an end-to-end plan for **start-ups to double the number of incubators** and start-ups in the duration of five years.

➢ **National Start-up Awards:**
  ❍ This program recognizes and rewards **outstanding start-ups and ecosystem** enablers contributing to economic dynamism by stimulating innovation and stimulating competition.

Note:

Environment & Ecology

Highlights

- *Supreme Court Modifies Order on ESZ*
- *Mass Nesting of Olive Ridley Turtles*
- *India's Cheetah Translocation Project*
- *State of the Global Climate 2022: WMO*

- *Translocation of Elephants*
- *Wildlife Protection Act, 1972*
- *Heatwaves*

ELEPHANT

4 Main Species of Elephant

Species	Found in	IUCN Red List Status	Habitat
Indian	Asia	EN (CITES – Appendix I, WPA – Schedule I)	Subtropical broadleaf forest, tropical broadleaf moist forest, dry forest, grassland
Sumatran	Asia	CR	Broadleaf moist tropical forests
Savanna (Bush)	Africa	EN	All sub-Saharan Africa except for Central Africa's dense tropical forest
Forest	Africa	CR	Dense Tropical Forests

Indian Elephant (Elephas maximus)

Largest Land Mammal on Asian Continent National Heritage Animal of India

- **Top 5 Indian States by Maximum Elephant Population:**
  (As per elephant census 2017)
  - Karnataka > Assam > Kerala > Tamil Nadu > Odisha
- **Social Structure:**
  - Female elephants are more social than males; form herd (generally 5-7)
    - Led by the oldest female, the 'matriarch'
  - Males usually live alone

- **Threats:**
  - Habitat Fragmentation
  - Poaching for Ivory
  - Human-Elephant Conflict
  - Mistreatment in Captivity
- **Conservation Efforts:**
  - Gaj Soochna App (2022)
  - Gaj Yatra (2017)
  - Hathi Mere Sathi campaign (2011)
  - National Elephant Corridor project (2005)
  - Monitoring the Illegal Killing of Elephants (MIKE) Programme (2003)
  - Project Elephant (1992)

Supreme Court Modifies Order on ESZ

Why in News?

The **Supreme Court** modified its previous judgment regarding **Eco-Sensitive Zones (ESZ)** around protected forests, stating that **ESZs cannot be uniform across the entire country,** and instead need to be tailored to the specific protected area.

What was the Earlier SC Judgement on ESZ?

➢ **Previous Judgement:**
  ○ In June 2022, the SC ordered that **ESZs of a minimum of one kilometer should be declared around protected forests, national parks, and wildlife sanctuaries across the country.**

Note:

GANGES RIVER DOLPHIN

(Platanista gangetica gangetica)

National aquatic animal of India

Facts

- Can only live in freshwater; prefer deep water
- Essentially blind; hunts by emitting ultrasonic sound
- Can't breathe in water; must surface every 30-120 seconds for air
- Also called 'susu' because of sound they make while breathing

Habitat & Distribution

- Distributed in Ganges and Brahmaputra River basins of India, Nepal and Bangladesh.
- Distribution range in India covers 7 states namely, Assam, Uttar Pradesh, Madhya Pradesh, Rajasthan, Bihar, Jharkhand and West Bengal.

Protection Status

- **IUCN Red List:** Endangered
- **CITES:** Appendix I
- **Wildlife Protection Act 1972:** Schedule I

Threats

- Habitat destruction
- Pollution
- Bycatch
- Climate Change
- Hunting

Conservation Efforts

- **Project Dolphin (2021):** On lines of project Tiger
- **National Dolphin Research Centre (2021):** India's and Asia's First; in Patna University (Bihar)
- **Dedicated Dolphin Sanctuary:**
  - Vikramshila sanctuary (Bihar) – 1991
  - Hastinapur sanctuary (UP) – Proposed

Drishti IAS

- The court had said that ESZs would act as a **"shock absorber"** for the protected areas and prevent encroachment, **illegal mining, construction, and other activities that could harm the environment and wildlife**.
- The court had also directed the **Centre and the States to notify the ESZs within 6 months and file compliance reports.**

➢ **Arguments by Centre and States for Challenging it:**

- The June 2022 order affected hundreds of villages in the peripheries of forests. **ESZs cannot be uniform across the country and have to be decided on a case-by-case basis.**
  - Geographical features, population density, land use patterns, and other factors of each protected area need to be taken into account.
- The **order would hamper the development activities and livelihoods of the people living in** **the ESZs,** as well as the conservation efforts of the forest departments.

What did the SC say in its Modified Order?

➢ The bench led by Justice B.R. Gavai agreed with the submissions of the Centre and the States and modified its previous order by saying that:

- The purpose of declaring ESZs is **not to hamper the day-to-day activities of the citizens but to protect the environment and wildlife.**
- A stringent observance of the June 2022 order would **cause more harm than good, as it would increase man-animal conflict,** prevent basic amenities and infrastructure for the villagers, and **hinder eco-development activities** around protected areas.
- The **Centre and the States should notify ESZs as per their own proposals** or as per recommendations of expert committees within 6 months.

Note:

drishti

- However, **mining within the national parks/ wildlife sanctuaries** and within an area of **1 km from their boundary shall not be permissible.**

What are Eco-Sensitive Zones?

➢ **Governing Statute:**
  ○ The **National Wildlife Action Plan (2002-2016)** of the **MoEFCC** stipulated that state governments should declare land falling **within 10 km of the boundaries of national parks and wildlife sanctuaries** as eco-fragile zones or **Eco-Sensitive Zones (ESZs)** under the **Environmental (Protection) Act, 1986.**

➢ **Extent:**
  ○ While the **10-km rule is implemented as a general principle,** the extent of its application can vary.
  ○ **Areas beyond 10 km can also be notified by the Union government as ESZs**, if they hold larger ecologically important **"sensitive corridors".**

➢ **Prohibited Activities within ESZs Include:**
  ○ Commercial mining
  ○ Sawmills
  ○ Industries causing pollution
  ○ **Major hydroelectric projects**
  ○ Commercial use of wood

➢ **Permitted Activities:**
  ○ Agricultural or horticultural practices
  ○ **Rainwater harvesting**
  ○ **Organic farming**
  ○ Use of **renewable energy sources**
  ○ **Adoption of green technology**

➢ **Significance:**
  ○ ESZs help in *in-situ* conservation
  ○ Minimize forest depletion and man-animal conflict
  ○ Minimize the negative impact on fragile ecosystems

➢ **Challenges Associated with ESZ:**
  ○ Climate change causing **land, water, and ecological stress on ESZs**
  ○ Impact on the **lives and livelihoods of forest communities** due to **forest rights** dilution

Mass Nesting of Olive Ridley Turtles

Why in News?

The Rushikulya beach in India's Odisha state recently witnessed the **highest-ever congregation of Olive Ridley sea turtles** in the past few decades.

➢ Millions of baby turtles have emerged from their eggshells and started their journey towards the Bay of Bengal using vast seawater routes.

Why is this significant?

➢ The **Rushikulya beach is not a wildlife sanctuary**, yet turtles feel safe to carry out mass nesting.
  ○ The successful mass nesting and hatching **indicates a healthy marine ecosystem** and a conducive environment for sea turtles to lay eggs.
  ○ The successful hatching of many Olive Ridley turtles is a **positive sign for their conservation.**

What are Olive Ridley Turtles?

➢ **About:**
  ○ The Olive ridley turtles are the **smallest and most abundant of all sea turtles** found in the world.
  ○ These turtles are **carnivores** and get their name from their **olive-colored carapace.**
  ○ They are best known for their **unique mass nesting called Arribada,** where thousands of females **come together on the same beach to lay eggs.**

➢ **Habitat:**
  ○ They are found in **warm waters of the Pacific, Atlantic,** and **Indian oceans.**
    Odisha's **Gahirmatha Marine Sanctuary** is known as the **world's largest rookery (a colony of breeding animals) of sea turtles.**

➢ **Protection Status:**
  ○ **Wildlife Protection Act, 1972:** Schedule 1
  ○ **IUCN Red List:** Vulnerable
  ○ **CITES:** Appendix I

Note:
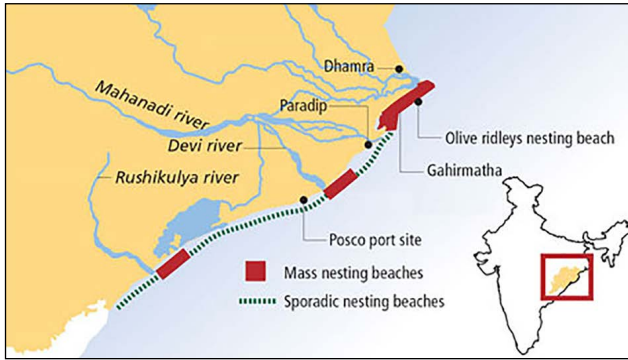
- ➢ **Initiatives to Protect Olive Ridley Turtles:**
  - ○ **Operation Olivia:**
    - Every year, the **Indian Coast Guard's "Operation Olivia",** initiated in the early 1980s, helps **protect Olive Ridley turtles as they congregate along the Odisha coast** for breeding and nesting from November to December.
    - It also **intercepts unlawful trawling activities.**
  - ○ **Mandatory use of Turtle Excluder Devices (TEDs):**
    - To reduce **accidental killing in India,** the Odisha government has made it mandatory for trawls to use **Turtle Excluder Devices (TEDs), a net specially designed with an exit cover** which allows the turtles to escape while retaining the catch.
  - ○ **Tagging:**
    - The **tagging of the endangered Olive Ridley turtles** using non-corrosive metal tags is done to enable scientists to chart their movements and know the areas they visit to protect the species and their habitats.

> *Note:*
> - ➢ **Behler Turtle Conservation Award,** established in 2006, is a major annual international award honoring excellence in the field of tortoise and freshwater turtle conservation. It is **considered the "Nobel Prize" of Turtle Conservation.**
> - ➢ It is **presented annually by the Turtle Survival Alliance, IUCN Tortoise** and Freshwater Turtle Specialist Group, Turtle Conservancy, and Turtle Conservation Fund.

What are the Threats Faced by Olive Ridley Turtles?

- ➢ **Human Activities: Coastal development, fishing, and pollution** along with destruction of their nesting habitats and accidental capture in fishing nets.

- ➢ **Predators:** Natural predators such as **dogs, hyenas, and birds of prey** that **often feed on eggs or hatchlings.**
- ➢ **Climate Change:** Rising **temperatures and sea levels impact nesting habitats**, making it difficult to lay eggs.
- ➢ **Light Pollution: Artificial lights** from nearby towns and industries can disorient hatchlings, causing them to move away from the sea and towards nearby villages.

India's Cheetah Translocation Project

Why in News?

India's ambitious **Cheetah Translocation Project** is facing a new set of challenges as two cheetahs have died, bringing the number of cheetahs left in the project to 18 out of the initial 20.

➢ **Uday, a six-year-old male cheetah,** died on April 23, 2023, in **Kuno National Park,** and **Sasha, a five-year-old female cheetah,** died on March 27, 2023, in the same park.

➢ Therefore, the government is now considering alternative conservation models, such as the **South African model of conserving cheetahs in fenced reserves.**

Were these Deaths Expected?

➢ The project anticipated a high mortality rate, and its short-term goal was to achieve a **50% survival rate for the first year, which is 10 out of 20 cheetahs.**

   ○ However, experts pointed out that the project had overestimated **Kuno National Park's carrying capacity for cheetahs, and this added pressure on the project staff to look for alternative sites.**

➢ **Causes of Death:**

   ○ A South African study found that **predation was the biggest killer,** accounting for 53.2% of cheetah mortality. Lions, leopards, hyenas, and jackals were primarily responsible.

      ● **Cheetahs suffer very high cub mortality – up to 90%** in protected areas – mainly due to predation.

      ● In Africa, **the lion is the chief predator of cheetahs**; in India, where lions are absent (except in Gujarat), **leopards are likely to slip into that role** in potential cheetah landscapes.

   ○ Other causes of mortality can be **holding camps, immobilization/transit, tracking devices,** and other wildlife killing cheetah (cubs) including warthogs, baboons, snakes, elephants, crocodiles, vultures, zebras, and even ostriches.

➢ **South African Model for Conserving Cheetahs:**

   ○ In South Africa, a conservation strategy called **meta-population management** was used to protect cheetahs.

   ○ This strategy involved **moving cheetahs from one small group to another** to ensure that they have **enough genetic diversity and to maintain a healthy population.**

   ○ This approach was successful in maintaining a **viable population of cheetahs in South Africa; in 6 years, the meta-population grew to 328 cheetahs.**

What are the Options Available to the Project?

➢ The authorities are exploring the possibility of preparing **Gandhi Sagar Wildlife Sanctuary in the Chambal River valley** as the second home for cheetahs.

➢ Another option is to move a few cheetahs from Kuno to the safety of an 80-sq-km fenced area in **Rajasthan's Mukundra Hills Tiger Reserve.**

   ○ However, both options would mean shifting the project's goal from establishing the cheetah in **an open landscape to managing the African imports as a few pocket populations in fenced-in or restricted areas.**

Mukundra Tiger Reserve

➢ it is situated near **Kota, Rajasthan,** in a valley formed by **two parallel mountains, Mukundra and Gargola.**

➢ The valley is bounded by four rivers - **Ramzan, Ahu, Kali, and Chambal** - and drained by their tributaries.

➢ **Protected area:**

   ○ Mukundra Hills was declared a Wildlife Sanctuary in 1955 and a National Park (Mukundra Hills (Darrah) National Park) in 2004.

      ● It was declared a **Tiger Reserve** in 2013, becoming the third in Rajasthan after **Ranthambore** and **Sariska**.

➢ **Parks and sanctuaries:**

   ○ Mukundra TR consists of three Wildlife Sanctuaries - Darrah, Jawahar Sagar, and Chambhal - and covers four districts of Rajasthan: Kota, Bundi, Chittorgarh, and Jhalawar.

State of the Global Climate 2022: WMO

Why in News?

Recently, the **World Meteorological Organization (WMO)** has released the State of the Global Climate Report 2022.

➢ The report focuses on key climate indicators – **Greenhouse Gasses**, Temperatures, **Sea level rise**, **Ocean Heat and Acidification**, Sea ice and **Glaciers**. It also highlights the impacts of **climate change and extreme weather.**

➢ Earlier, the WMO released the **provisional State of the Global Climate report, 2022**.

What are the Findings of the Report?

- **Temperature**
  - Global mean temperature in 2022 was 1.15 °C above the 1850-1900 average.
  - The years 2015 to 2022 were the **eight warmest in the instrumental record** back to 1850.
  - This was despite three consecutive years of a cooling **La Niña – such a "triple-dip" La Niña** has happened only three times in the past 50 years.

- **Greenhouse Gasses:**
  - Concentrations of the three main GHG, Carbon dioxide, Methane, and Nitrous oxide, reached record highs in 2021.
  - The annual increase in methane concentration from 2020 to 2021 was the highest on record.

- **Sea Level Rise:**
  - Global mean sea level (GMSL) continued to rise in 2022, reaching a new record high for the satellite altimeter record.
  - For the period 2005-2019, total land ice loss from glaciers, Greenland, and Antarctica contributed **36% to the GMSL rise**, and ocean warming contributed 55%.

- **Ocean Heat:**
  - Ocean heat content reached a new record high in 2022.
  - Around 90% of the energy trapped in the climate system by greenhouse gases goes into the ocean, somewhat ameliorating even higher temperature increases but posing risks to marine ecosystems.

- **Ocean Acidification:**
  - CO_2 reacts with seawater resulting in a decrease of pH referred to as **'ocean acidification',** threatening organisms and ecosystem services.
  - The **IPCC Sixth Assessment Report** concluded that "There is very high confidence that open ocean surface pH is now the lowest it has been for at least 26 [thousand years] and current rates of pH change are unprecedented since at least that time.

- **Sea Ice:**
  - Sea ice in **Antarctica** dropped to 1.92 million km^2 in February 2022, the lowest level **on record and almost 1 million km^2 below the long-term (1991-2020) mean**.

- **Glaciers:**
  - Glaciers are losing a lot of ice, with a thickness change of over (-) 1.3 meters on average between **October 2021 and October 2022**, which is much larger than the average of the past decade.
  - The **European Alps** saw **record glacier melt due to a lack of winter snow**, dust from the Sahara in March 2022, and heatwaves from May to early September.

What are the Impacts of Such Record Highs In Climate Indicators?

- **Drought in East Africa:**
  - **Rainfall** has been **below-average in five consecutive wet seasons**, the longest such sequence in 40 years. As of January 2023, it was estimated that over 20 million people faced acute food insecurity across the region, under the effects of the drought and other shocks.

- **Record Breaking Rain in Pakistan:**
  - Total damage and economic losses were assessed at USD 30 billion.
    - July (181% above normal) and August (243% above normal) were each the wettest on record nationally.
  - The flooding in Pakistan affected some **33 million people, including about 8,00,000 Afghan refugees** hosted in affected districts.

- **Heat Waves in Europe:**
  - In some areas, **extreme heat** was coupled with exceptionally dry conditions. Excess deaths associated with the **heat in Europe exceeded 15,000** in total across Spain, Germany, the UK, France, and Portugal.
  - China had its most **extensive and long-lasting heatwave since national records began**, extending from mid-June to the end of August and resulting in the hottest summer on record by a margin of more than 0.5 °C. It was also the second-driest summer on record.

- **Food Insecurity:**
  - As of 2021, 2.3 billion people faced **food insecurity**, of which 924 million people faced severe food insecurity.
  - Projections estimated 767.9 million people facing undernourishment in 2021, 9.8% of the global population.

Note:

○ Half of these are in **Asia and one third in Africa.**

➢ **Pre-Monsoon Heat Waves in India and Pakistan:**

○ Pre-monsoon season Heatwaves in India and Pakistan in caused a **decline in crop yields.**

○ This, combined with the **banning of wheat exports and restrictions on rice exports** in India after the start of the **conflict in Ukraine**, threatened the availability, access, and stability of staple foods within international food markets and posed high risks to countries already affected by shortages of staple foods.

➢ **Displacement:**

○ In Somalia, almost 1.2 million people became internally displaced by the catastrophic impacts of drought on pastoral and farming livelihoods and hunger during the year, of whom more than 60,000 people crossed into Ethiopia and Kenya during the same period. Concurrently, Somalia was hosting almost 35,000 refugees and asylum seekers in drought-affected areas.

What is the World Meteorological Organization (WMO)?

➢ The WMO is an **intergovernmental organization with a membership of 192** Member States and Territories.

➢ India is a member of WMO.

➢ It originated from the **International Meteorological Organization (IMO)**, which was established after the 1873 Vienna International Meteorological Congress.

➢ Established by the ratification of the WMO Convention on 23rd March 1950, WMO became the specialized agency of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences.

➢ WMO is headquartered in **Geneva, Switzerland.**

Translocation of Elephants

Why in News?

The **Supreme Court** recently dismissed the **Kerala government's appeal** against the order of the **Kerala HC directing the relocation of Arikomban (Wild Elephant)**, the **"rice tusker"** of Munnar, to the **Parambikulam tiger reserve.**

What are the Arguments in Favour of Elephant Translocation?

➢ The **Kerala High Court** highlighted that the availability of **natural food and water resources** in the relocation site would **deter the elephant from foraging in human settlements.**

➢ The court also emphasised that the elephant will be **radio-collared,** and its **movements monitored by forest/wildlife officials**, which would effectively remove the surprise element of any conflict situation.

What are the Arguments Against Elephant Translocation?

➢ India's first **radio-telemetry study of a translocated problem elephant** was conducted in **2006** on a large male shifted from the **cropland of West Midnapore in South Bengal to the Mahananda Sanctuary** in Darjeeling district.

○ Almost immediately, the elephant started **damaging houses and raiding crops** in villages and Army areas.

➢ A study on **translocated problem Asian elephants was conducted in 2012,** in which a team of biologists monitored **12 male elephants translocated 16 times to different national parks in Sri Lanka.**

○ The study found: Translocation caused **wider propagation and intensification of human-elephant conflict,** and **increased elephant mortality.**

Note:

- ➤ **Vinayaga**, a bull that **gained notoriety as a crop raider,** was **translocated from Coimbatore to the Mudumalai-Bandipur landscape in December 2018**.
  - ❍ It soon started using **gaps in the elephant-proof trench to raid crops,** until he was driven back.

Elephant

- ➤ **About:**
  - ❍ Elephant is the **Natural Heritage Animal of India.**
  - ❍ Elephants are considered a **"Keystone Species"** as they play a critical role in maintaining the balance and health of forest ecosystems.
    - They are **known for their exceptional intelligence**, boasting the largest brain size of any land animal.
- ➤ **Significance in Ecosystem:**
  - ❍ Elephants are very **important grazers and browsers**, eating vast amounts of **vegetation every day, spreading seeds around as they go**.
    - They also help **shape the often-thick vegetation of the Asian landscape.**
    - For example, in forests, **elephants create clearings and gaps in the trees that let sunlight in to reach new seedlings**, helping plants grow and the forest to regenerate naturally.
    - Elephants will also dig for water when there is not any surface water – **opening water access for other creatures as well as themselves.**
- ➤ **Elephants in India:**
  - ❍ India has the **largest number of wild Asian Elephants**, estimated at **29,964 according to the 2017 census by Project Elephant**.
    - It is about 60% of the species' global population.
  - ❍ **Karnataka** has the highest number of elephants, followed by **Assam** and **Kerala.**
- ➤ **Conservation Status:**
  - ❍ **Convention of the Migratory species (CMS)**: Appendix I
  - ❍ **Wildlife (Protection) Act, 1972:** Schedule I
  - ❍ **International Union for Conservation of Nature (IUCN) Red List** of threatened species:
    - **Asian Elephant-** Endangered

- African Forest Elephant- Critically Endangered
- African Savanna Elephant- Endangered
- ➤ **Other Conservative Efforts:**
  - ❍ **India:**
    - **Project Elephant was initiated by the Indian government in 1992** to safeguard elephants and their natural habitat in India.
    - There are also **33 elephant reserves** in India aimed at conservation efforts.
- ➤ **Worldwide**
  - ❍ **World Elephant Day:** It is observed annually on **August 12th** to raise awareness about the urgent need to protect and conserve elephants.
    - The day was **established in 2012 to highlight the critical plight of both Asian and African elephants.**
      - **Monitoring of Illegal Killing of Elephants (MIKE) Programme:** It is an international collaboration that **measures the levels, trends and causes of elephant mortality**, thereby providing an information base to support international decision-making related to conservation of **elephants in Asia and Africa.**

Wildlife Protection Act, 1972

Why in News?

The **Wildlife (Protection) Act, 1972 has completed 51 years since its inception**, and over the years, it has been successful in protecting several endangered species. The act has **played a critical role in conserving the country's diverse wildlife.**

What is the Wildlife (Protection) Act, 1972?

- ➤ **About:**
  - ❍ The **Wildlife (Protection) Act, of 1972** provides a **legal framework for the protection of various species of wild animals and plants,** management of their habitats, regulation, and control of trade in wild animals, plants, and products made from them
  - ❍ The act also lists schedules of plants and animals that are afforded varying degrees of protection and monitoring by the government.

Note:

- India's entry to the **CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)** was made easier by the Wildlife Act.
- Earlier, **Jammu and Kashmir was not covered by the Wildlife Protection Act of 1972.** The Indian Wildlife Protection Act now applies to J&K as a result of the **reorganisation act**.

➢ **Constitutional Provisions for the Wildlife Act:**

- The **42nd Amendment Act,** 1976, **Forests and Protection of Wild Animals and Birds was transferred from State to Concurrent List.**
- Article 51 A (g) of the Constitution states that it shall be the **fundamental duty** of **every citizen to protect and improve the natural environment including forests and Wildlife.**
- Article 48 A in the **Directive Principles of State policy,** **mandates that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.**

➢ **Schedules under the Act:**

- **Schedule I:**
  - It covers **endangered species that need rigorous protection.**
  - A person is **liable to the harshest penalties for violation** of the law under this Schedule.
  - Species under this Schedule **are prohibited to be hunted throughout India,** except under threat to human life or in case of a disease that is beyond recovery.
  - Some of the animals listed under Schedule I include **the Black Buck, Snow Leopard, Himalayan Bear and Asiatic Cheetah.**

- **Schedule II:**
  - **Animals under this list are also accorded high protection with the prohibition on their trade.**
  - Some of the animals listed under Schedule II include **Assamese Macaque, Himalayan Black Bear and Indian Cobra.**

- **Schedule III & IV:**
  - Species that are **not endangered are included under Schedule III and IV.**
  - This includes **protected species with hunting prohibited but the penalty for any violation is less compared to the first two schedules.**

- Animals protected under Schedule III include Chital (spotted deer), Bharal (blue sheep), Hyena, and Sambhar (deer).
- Animals protected under Schedule IV include **Flamingo, Hares, Falcons, Kingfishers, Magpie, and Horseshoes Crabs.**

- **Schedule V:**
  - This schedule contains animals that are considered as **vermin** (small wild animals that carry disease and destroy plants and food). These animals can be hunted.
  - It includes only four species of wild animals: **Common Crows, Fruit Bats, Rats, and Mice.**

- **Schedule VI:**
  - It provides for **regulation in the cultivation of a specified plant** and restricts its possession, sale, and transportation.
  - Both cultivation and trade of specified plants can only be carried out with the prior permission of the competent authority.
  - Plants protected under Schedule VI include **Beddomes' cycad (Native to India), Blue Vanda (Blue Orchid), Red Vanda (Red Orchid), Kuth (Saussurea lappa), Slipper orchids (Paphiopedilum spp.) and Pitcher plant (Nepenthes khasiana).**

➢ **Bodies Constituted under the Act:**

- **National Board for Wildlife (NBWL):**
  - **NBWL** serves as an **apex body for the review of all wildlife-related matters** and for the approval of projects in and around national parks and sanctuaries.

- **State Board for Wildlife (SBWL):**
  - The Chief Minister of the state/UT is the chairperson of the board.

- **Central Zoo Authority:**
  - The **Central Zoo Authority** consists of a total 10 members including the Chairperson and a Member-Secretary.
  - The **authority provides recognition to zoos and is also tasked with regulating the zoos across the country.**
  - It lays down **guidelines and prescribes rules under which animals may be transferred among zoos nationally and internationally.**

Note:

- **National Tiger Conservation Authority (NTCA):**
  - Following the recommendations of the Tiger Task Force, **NTCA** was constituted in 2005 for strengthening tiger conservation.
    - The Union Environment Minister is the Chairperson of NTCA and the State Environment Minister is the Vice-Chairperson.
      - The Central Government on the recommendations of NTCA declares an area as a **Tiger Reserve.**
- **Wildlife Crime Control Bureau (WCCB):**
  - The act provided for the constitution of **WCCB** to combat organized wildlife crime in the country.

- **Protected Areas Under the Act:**
  - There are five types of protected areas under the Act which are: **Sanctuary**, **National Parks, Conservation Reserves**, **Community Reserves and Tiger Reserves.**
    - **Important Amendments done to the Act:**
  - **Wildlife (Protection) Amendment Act of 1991:**
    - This amendment **strengthened the penalties and fines for wildlife-related offences** and also **introduced provisions for the protection of endangered species.**
  - **Wildlife (Protection) Amendment Act of 2002:**
    - This amendment introduced the **concept of community reserves and conservation reserves as protected areas**.
  - **Wildlife (Protection) Amendment Act of 2006:**
    - This amendment dealt with the issue of **human-wildlife conflict** and provided for the creation of a **National Tiger Conservation Authority (NTCA)** to manage and **protect tiger reserves**.
    - It also made provisions for the creation of a **Tiger and Other Endangered Species Crime Control Bureau** to deal with wildlife-related crimes.
  - **Wildlife (Protection) Amendment Act, 2022:**
    - The Act seeks to **increase the species** protected under the law and implement CITES**.**
    - The **number of schedules has been reduced to four:**
      - **Schedule I containing animal species enjoying the highest level of protection.**

- Schedule II for animal species subject to a lesser degree of protection.
- Schedule III for protected plant species, and
- Schedule IV for scheduled specimens under CITES.
  - The Act permits the **use of elephants** for **'religious or any other purposes'.**
  - The penalties have also been increased for general and specially protected animals' violations.

What are the Initiatives of Wildlife Development Under WPA, 1972?

- **Project Tiger Conservation:**
  - **Project Tiger Conservation to conserve the population of tigers**. Launched in 1973, the project is still ongoing with the help of the Ministry of Environment, Forest, and Climate Change.
- **Wildlife Corridors:**
  - Wildlife corridors **are connected with the protected areas and allow the movement of animals without interfering with human settlements.** Recently, India's first urban wildlife corridor is being planned between New Delhi and Haryana. The corridor is near the **Asola Bhatti wildlife sanctuary** to provide safe passage to wildlife animals such as leopards and other animals.

What are the Challenges in WPA, 1972?

- **Lack of Awareness:**
  - Despite being in existence for over 50 years, the **Act has not been able to reach the masses effectively.** Many people are still unaware of the importance of wildlife conservation and the laws surrounding it.
- **Human-Wildlife Conflict:**
  - With the **increase in human population and the encroachment of wildlife habitats, there has been a rise in human-wildlife conflict**. This often leads to the killing of wildlife, which is illegal under the WPA.
- **Illegal Wildlife Trade:**
  - India has observed a significant increase in illegal wildlife trade, which is a major threat to the country's

Note:

wildlife. Despite stringent laws, poaching and illegal trade in wildlife products continue to thrive.

➢ **Lack of Coordination**:

   ○ There is often a **lack of coordination between the forest department and other government agencies such as the police, customs, and revenue departments.**

     ● This makes it difficult to effectively enforce the WPA and curb illegal wildlife trade.

➢ **Inadequate Penalties:**

   ○ The penalties for wildlife crimes under the WPA are not stringent enough to act as a deterrent. The fines and sentences are often too low to make an impact on the offenders.

➢ **Lack of community participation**:

   ○ Conservation efforts cannot be successful without the participation of **local communities.** However, there is often a lack of community participation in wildlife conservation efforts.

➢ **Climate Change:**

   ○ Climate change is a significant threat to wildlife habitats, and it is likely to create threats to existing wildlife. The WPA needs to take into account the impact of climate change on wildlife and their habitats.

Heatwaves

Why in News?

   Recently, casualties were observed from an apparent heat stroke while attending a **government award function in Navi Mumbai**. This incident highlights the **potential risks from heatwaves,** which are **expected to increase in intensity and frequency due to climate change.**

➢ Several factors, such as **long-distance travel, underlying health conditions,** and lack of access to drinking water and medical attention in large gatherings, can **increase vulnerability to heat strokes.**

What are Heat Waves?

➢ **About:**

   ○ Heatwaves are **prolonged periods of excessively hot weather** that can cause adverse impacts on **human health, the environment, and the economy.**

● India, being a tropical country, is **particularly vulnerable to heatwaves**, which have become more frequent and intense in recent years.

➢ **Criteria for Declaring Heat Wave in India:**

   ○ **Plains and Hilly Regions:**

     ● Heat wave is considered if the **maximum temperature of a station reaches at least 40°C or more for Plains** and **at least 30°C or more for Hilly regions.**

     ● **Based on Departure from Normal Heat Wave:** Departure from normal is **4.50°C to 6.40°C.**

       ■ **Severe Heat Wave:** Departure from normal is >6.40°C.

         ◆ **Based on Actual Maximum Temperature Heat Wave:** When actual maximum temperature ≥45°C.

       ■ Severe Heat Wave: When actual maximum temperature ≥47°C.

         ◆ If the above criteria are met in at least 2 stations in a Meteorological subdivision for at least two consecutive days, it is declared so on the second day.

   ○ **Coastal Areas:**

     ● When maximum temperature departure is **4.50°C or more from normal,** a heat wave may be described provided the actual **maximum temperature is 37°C or more.**

➢ **Fatality:**

   ○ High temperature in itself is not fatal but the combination of **high temperature and high humidity, referred to as the wet bulb temperature,** is what **makes heatwaves deadly**.

   ○ **High moisture content in the atmosphere makes it difficult for the sweat to evaporate and bodies to cool down,** as a result of which the internal body temperature increases sharply and is often fatal.

➢ **Causes:**

   ○ **Global Warming:** One of the primary causes of heatwaves in India is **global warming**, which refers to the long-term increase in Earth's average temperature due to human activities such as burning **fossil fuels, deforestation, and industrial activities.**

     ● Global warming can result in higher temperatures and changes in **weather patterns**, leading to heatwaves.

Note:

○ **Urbanisation:** Rapid **urbanisation** and the growth of concrete jungles in cities can lead to the phenomenon known as the "**urban heat island effect.**"

- Urban areas with high population density, buildings, and concrete surfaces absorb and retain more heat, **leading to higher temperatures, particularly during heatwaves.**

○ **El Nino Effect: During an El Nino event,** the warming of the Pacific Ocean can affect **global weather patterns, causing changes in temperature, rainfall, and wind patterns around the world.**

- The summer of the year 2023 is predicted to be **excessively hot because of the end of the strong La Nina phase** in equatorial Pacific Ocean and the earlier-than-expected occurrence of **El Nino event.**

➢ **Impacts:**

○ **Impact on Health:**

- Rapid rises in heat gain can **compromise the body's ability to regulate temperature** and can result in a cascade of illnesses, including heat cramps, heat exhaustion, heatstroke, and hyperthermia.

- Deaths and hospitalizations from heat can occur extremely rapidly or have a lagged effect.

○ **Impact on Water Resources:** Heatwaves can **exacerbate water scarcity issues in India**; drying up of water bodies, reduced water availability for agriculture and domestic use, and increased competition for water resources.

- This can lead to **conflicts over water, affect irrigation practices, and impact water-dependent industries.**

○ **Impact on Energy**: Heatwaves can **increase electricity demand for cooling** purposes, leading to strain on power grids and potential blackouts.

- This can disrupt economic activities, **affect productivity, and impact vulnerable populations** who may not have access to reliable electricity for cooling during heatwaves.

■■■

Note:

Security

Highlights

- *Dima Hasao Peace Pact: Assam*
- *Left Wing Extremism in Chhattisgarh*
- *Drug Trafficking and Threat to Security*
- *National Investigation Agency*

Dima Hasao Peace Pact: Assam

Why in News?

Recently, the **Dimasa National Liberation Army (DNLA) signed** a Peace Agreement with the Assam government and the Union Government.

➢ In September 2021, the DNLA had declared a **unilateral ceasefire for a period of six months** following an appeal by the chief minister. The ceasefire has been extended since then.

What does this Agreement Seek?

➢ The Memorandum of Understanding (MoU) has been signed which makes the DNLA lay down its arms and abide **by the Constitution of India.**

  ❍ The group will disband their armed organisation, vacate all camps occupied by DNLA cadres and join the mainstream.

  ❍ A total of 179 DNLA cadres will **surrender their arms and ammunition.**

➢ The central and state governments **will provide Rs 500 crore each** for the development of the **Dimasa tribal areas.**

➢ Dimasa Welfare Council will be set up by th**e Government of Assam to protect, preserve and promote a social, cultural, and linguistic identity** to meet political, economic and educational aspirations and will ensure speedy and focused development of the Dimasa people residing outside the jurisdiction of **North Cachar Hills Autonomous Council (NCHAC).**

  ❍ Dimasa Tribal Region is run by NCHAC.

➢ The MoU also provides for the appointment of a Commission under Paragraph 14 of the **Sixth Schedule to the Constitution** of India to examine the demand for the inclusion of additional villages contiguous to the **NCHAC with the Council.**

  ❍ The Sixth Schedule under Article 244 provides for the formation of autonomous administrative divisions — Autonomous District Councils (ADCs) — that have some legislative, judicial, and administrative autonomy within a state.

What is DNLA?

➢ It is an insurgent group **operating in Dima Hasao and Karbi Anglong districts in Assam.**

➢ The DNLA was established in April 2019 seeking a **sovereign territory for the Dimasa tribals** and launched an armed insurgency to achieve its goal.

➢ The group aims to "develop a sense of brotherhood **among the Dimasas** and also to rebuild the trust and faith among the Dimasa society for regaining the Dimasa Kingdom".

➢ The group runs on extortion and taxation. "It draws its support and sustenance from the **NSCN(IM) of Nagaland**.

1 Karbi Anglong
2 Dima Hasao
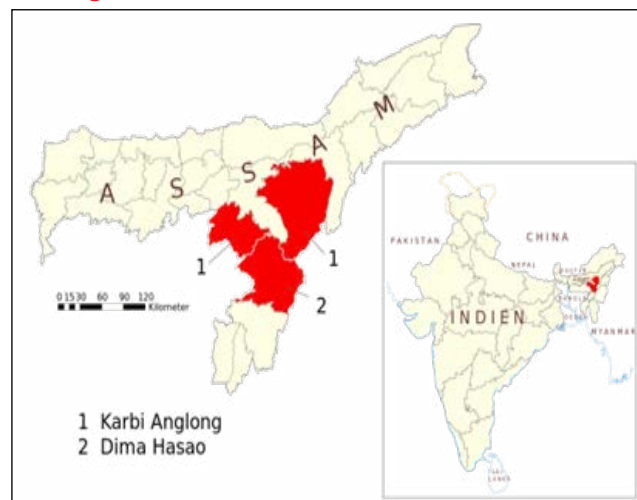
Note:

Who are Dimasas?

➤ **About:**

❍ The Dimasas (or Dimasa-Kacharis) are the **earliest known rulers and settlers of Assam**, and now live in Dima Hasao, Karbi Anglong, Cachar, Hojai and Nagaon districts of central and southern Assam, as well as parts of Nagaland.

● Some of the historians describe them as "aborigines" or the **"earliest known inhabitants of the Brahmaputra Valley".**

❍ Prior to **Ahom rule**, the Dimasa kings — believed to be the descendants of the rulers of the ancient Kamarupa kingdom — ruled large parts of Assam along the south bank of the Brahmaputra between the 13th and 16th centuries.

● Their earliest historically known capital was Dimapur (now in Nagaland), and later **Maibang in North Cachar Hills.**

● It was a powerful kingdom and had almost all of the southern belt of Brahmaputra under its control in the 16th century.

➤ **Protection:**

❍ Dima Hasao district and Karbi Anglong both enjoy the **Sixth Schedule status** granted by the Constitution of India.

❍ They are run by the North Cachar Hills Autonomous Council **(NCHAC)** and the Karbi Anglong Autonomous Council **(KAAC)** respectively.

● The Autonomous Council is a powerful body and almost all the departments of government are under its control **except the police and Law & Order** are under Assam Government.

What is the history of Militancy in Dima Hasao Region?

➤ **Militancy:**

❍ The hill districts of Assam, Karbi Anglong and Dima Hasao, have had a long history of insurgency by Karbi and Dimasa groups which **peaked in the mid-1990s**, and was rooted in a core demand of statehood.

❍ In Dima Hasao, the demand for statehood began in the 1960s, along with other tribal sections of undivided Assam.

❍ While new states such as Meghalaya were carved out, **Karbi Anglong and North Cachar remained**

with Assam on a promise of more power by the government, including implementation of **Article 244 (A)**, which allows for an **'autonomous state'** within Assam in certain tribal areas. This was never implemented.

➤ **Dimasa National Security Force:**

❍ A demand for a full-fledged state, **'Dimaraji', gathered steam**, and led to the formation of the **militant Dimasa National Security Force (DNSF) in 1991.**

● The group surrendered in 1995, but its commander-in-chief (Jewel Gorlosa) broke away and formed the **Dima Halam Daogah (DHD).**

❍ In 2003, the DHD began negotiations with the government, but its commander-in-chief broke and formed the DHD-J (Jewel) with an armed group called Black Widow.

● These groups were violent and had popular support. They signed a ceasefire in 2012.

What are the other Peace Developments in North East India?

➤ **Karbi Anglong Agreement, 2021**

➤ **Bodo Accord 2020**

➤ **Bru-Reang Agreement 2020**

➤ **NLFT-Tripura Agreement, 2019**

Left Wing Extremism in Chhattisgarh

Why In News?

Recently, ten personnel of the Chhattisgarh Police's **District Reserve Guard (DRG)** and the civilian driver of their vehicle were reported killed in an **IED (Improvised Explosive Device) attack by Maoists** in the state's Dantewada district.

➤ The attack has took place in Chhattisgarh after more than 2 years when 22 security forces personnel were killed by Maoists in April 2021.

What is Left-wing Extremism?

➤ **About:**

❍ **Left-wing extremism (LWE)** is a **political ideology** that advocates for **radical socialist, communist, or**

anarchist ideas and is characterized by the **use of violence and terrorism** as a means of achieving its goals.

○ It often involves **opposition to capitalism, imperialism,** and the established **political and social order,** and seeks to establish a **revolutionary socialist or communist state.**

➢ **Targets:**

○ **LWE** groups may target **government institutions, law enforcement agencies, or private property** to further their agenda.

● **LWE** is often opposed by **governments** and **law enforcement agencies,** who view it as a **threat to national security** and **stability.**

What is the LWE Situation in Chhattisgarh?

➢ Chhattisgarh is the **only state in India where Maoists continue to have a significant presence** and retain the capability to mount big attacks.

○ In the **last 5 years** (2018-22), Chhattisgarh has accounted for more than **1/3rd of all Maoist-related violence** and had a share of **70%-90% of total deaths due to same.**

● Chhattisgarh continues to remain troubled. Through the active involvement of state police in Andhra Pradesh, West Bengal, Odisha and Jharkhand, the states were able to end their Maoist problem.

A map of India's Maoist conflict

A crackdown on Maoist rebels has led to a rise in the number of casualties in the country's tribal areas. Here are the regions that are most affected.

- Highly affected
- Moderately affected
- Marginally affected
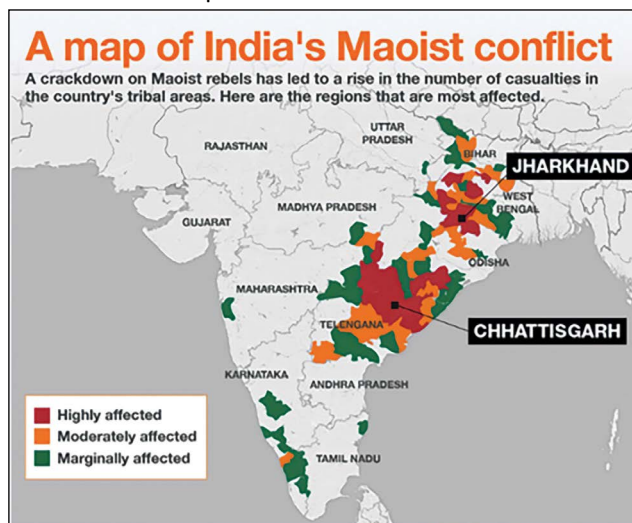
○ However, this **process of eradicating LWE has started comparatively late in Chhattisgarh** and by the time, the police of neighbouring states had already pushed Maoists from their states to

Chhattisgarh, making it a concentrated zone of Maoist influence.

● The **absence of roads, connectivity and infrastructure and minimal presence of the administration in Bastar** has ensured that Maoists continue to have influence in the region and **enjoy local support through a mix of fear and goodwill.**

What is the Current LWE Situation in the Country?

➢ According to the government, **Maoist violence in the country has gone down by 77% since 2010.**

○ As per the Ministry **of Home Affairs (MHA)** the number of resultant deaths **(security forces + civilians)** has come down by **90%** from the all-time high of **1,005 in 2010 to 98 in 2022.**

● The influence of Maoists and associated violence has been falling consistently in the country because of multiple factors:

■ A stronger push by security forces in **Maoist strongholds.**

■ **Roads and civic amenities** reach the interior to a greater extent than earlier.

■ A general disenchantment with the **Maoist ideology** among the youth, which has deprived the insurgent movement of new leadership.

What are the Government Initiatives to Control LWE?

➢ **SAMADHAN doctrine** is the one-stop solution for the **LWE problem.** It encompasses the entire strategy of government from **short-term policy to long-term policy** formulated at different levels. **SAMADHAN stands for:**

○ **S-** Smart Leadership

○ **A-** Aggressive Strategy

○ **M-** Motivation and Training

○ **A-** Actionable Intelligence

○ **D-** Dashboard Based KPIs (Key Performance Indicators) and KRAs (Key Result Areas)

○ **H-** Harnessing Technology

○ **A-** Action plan for each Theatre

○ **N-** No access to Financing

Note:

- ➢ **National Policy and Action Plan in 2015:** It consists of a **multi-pronged approach** comprising **security measures, development initiatives** and **ensuring rights & entitlements** of local communities.
    - ❍ The **MHA** is supporting the **State Governments** extensively by way of deployment of **Central Armed Police Force (CAPF) Battalions, provision of helicopters** and **UAVs** and sanction of **India Reserve Battalions (IRBs)/ Special India Reserve Battalions (SIRBs)** etc.
    - ❍ Funds are provided under **Modernization of Police Force (MPF), Security Related Expenditure (SRE) Scheme** and **Special Infrastructure Scheme (SIS)** for modernization and training of State Police.
    - ❍ Funds for development are also provided to most **LWE affected districts** under the **Special Central Assistance (SCA) scheme.**
        - ● **Aspirational Districts Programme: Aspirational Districts Programme** launched in **2018,** aims to rapidly transform the districts that have shown relatively lesser progress in key social areas.
        - ● **Greyhounds: Greyhounds** was raised in **1989** as an **elite anti-naxal force.**
        - ● **Operation Green Hunt: Operation Green Hunt** was started in **2009-10** and massive deployment of security forces was done in the **naxal-affected areas.**
        - ● **Bastariya Battalion:** In Chhattisgarh, the CRPF raised a **Bastariya Battalion** the recruits for which were taken from the **local population,** who knew the **language and terrain,** and could **generate intelligence.**
    - ❍ This unit now has **400 recruits** and **regularly conducts operations** in **Chhattisgarh.**

What are the Challenges in Tackling LWE?

- ➢ **Wide Geographic Spread:** LWE groups operate in remote and inaccessible areas; dense forests, hilly terrains, and where there is lack of proper infrastructure making it challenging for security forces to track them down.
- ➢ **Support of Local Communities:** LWE groups often enjoy the support of local communities who feel neglected and marginalized by the government.
- ➢ **Lack of Development:** LWE affected areas are often underdeveloped, with inadequate access to basic amenities which creates fertile ground for extremist ideologies.

- ➢ **Political Support:** LWE groups often have the support of certain political parties and leaders, who use them for their own interests making it challenging for the government to take a strong stance against them without risking political backlash.

Drug Trafficking and Threat to Security

Why in News?

The **global drug trade is a major problem** that has put **security and law enforcement agencies on high alert worldwide**, including in India.

- ➢ Traditionally India has been seen **as sandwiched between the Death (Golden) Crescent and Death (Golden) Triangle** and is being flooded with drugs, especially heroin and methamphetamine, from these two regions by drug lords indirectly supported by intelligence setups.

Why is Drug Trafficking Dangerous?

- ➢ It is a **social problem that harms youth and families** and the money it generates is diverted for disruptive activities that have bearings on national security.
- ➢ Criminal networks traffic a range of drugs including cannabis, cocaine, heroin and methamphetamine.
    - ❍ **Methamphetamine (meth)** is an addictive drug and can cause considerable health adversities that can sometimes result in death.
    - ❍ Recently, USA has witnessed a new **zombie drug (fentanyl)** gripping its population.
        - ● This drug can cause raw wounds on the user's skin that can spread rapidly with repeated exposure.
        - ● It starts with ulcers, hardens to dead skin called eschar, and if left untreated can result in amputation.
- ➢ Drug trafficking is often associated with other forms of crime, such as **terrorism, money laundering** or corruption.
- ➢ Trafficking routes can also be used by criminal networks to transport other illicit products.

What is the Status of Drug Addiction in India?

- ➢ In 2018, The Ministry of Social Justice and Empowerment has conducted a **"National Survey on Extent and**

Note:

Pattern of Substance Use in India" in collaboration with AIIMS, New Delhi. The survey's findings are as follows:

Name of the substance	Prevalence of use (Age Group 10-75 years)
Alcohol	14.6%
Cannabis	2.83%
Opiates/ Opioids	2.1%

➤ According to **World Drug Report 2022**, India has the **fourth largest quantity of opium seized in 2020** at 5.2 tons and the third-highest amount of morphine was also seized in the same year at 0.7 tons.

From where the Illegal Drugs are trafficked in India?

➤ **Threats from Death (Golden) Crescent:** Comprises Afghanistan, Iran, and Pakistan.
  ○ Parts of Pakistan adjoining Afghanistan are also used by Pakistani drug traffickers to convert Afghan opium to heroin and then sent to India.

➤ **Threats from Death (Golden) Triangle:** Consists of Vietnam, Thailand, Laos and Myanmar.
  ○ The Shan and Kachin provinces of Myanmar bordering China also pose challenges.

➤ **China Factor:** These heroin and methamphetamine-producing areas have porous borders and are, reportedly, **under the control of rebel groups, indirectly supported by the Chinese.**
  ○ Illicit arms are manufactured here and supplied to underground groups active in India.

➤ According to the latest annual report by the **Narcotics Control Bureau (NCB), drug trafficking through sea routes in the Arabian Sea and the Bay of Bengal, is estimated to account for around 70% of the total illegal drugs smuggled into India.**

What are the Initiatives taken by India to curb the Drug Menace?

➤ **The Narcotic Drugs and Psychotropic Substances Act, (NDPS) 1985:** It prohibits a person from producing, possessing, selling, purchasing, transporting, storing, and/or consuming any narcotic drug or psychotropic substance.

➤ **National Action Plan for Drug Demand Reduction:** The Ministry of Social Justice and Empowerment has prepared a plan for Drug Demand Reduction for the period of 2018-25. This plan focuses on:
  ○ Preventive education
  ○ Awareness generation
  ○ Identification, counselling, treatment and rehabilitation of drug dependent persons
  ○ Training and capacity building of service providers through collaborative efforts of government and NGOs.

➤ **National Fund for Control of Drug Abuse:** It was created in accordance with a provision of the NDPS, 1985 for meeting the expenditure incurred in measures taken for:
  ○ Combating illicit trafficking
  ○ Controlling abuse of drugs and substances
  ○ Identifying, treating and rehabilitating addicts
  ○ Preventing drug abuse
  ○ Educating public against drug abuse

➤ **Nasha Mukt Bharat Campaign:** Nasha Mukt Bharat Abhiyaan (NMBA) was launched in 2020 to tackle the issue of Substance Abuse and a vision to make India Drug Free. It is a three-pronged attack combining:
  ○ The supply curb by Narcotics Control Bureau
  ○ Outreach and Awareness and Demand Reduction effort by Social Justice and Empowerment
  ○ Treatment through Health Department.

➤ **Initiatives of Indian Coast Guards:** The Indian Coast Guard (ICG) has developed a good synergy with the security agencies and with the coast guards of Sri Lanka, Maldives and Bangladesh for seizure of such drugs.
  ○ It seized 2,160 kgs of meth in two different instances recently near the Andaman and Nicobar Islands.

➤ **International Treaties and Conventions to Combat Drug Menace: India is signatory** of the following international treaties and conventions:
  ○ **United Nations (UN) Convention on Narcotic Drugs (1961)**

Note:

○ UN Convention on Psychotropic Substances (1971).

○ **UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)**

○ UN Convention against Transnational Organized Crime (UNTOC) 2000

What are the Challenges in tackling Drug Trafficking in India?

➤ **Dark Net:** Darknet markets are difficult to trace because of their anonymity and low risks. They have taken over the traditional drug markets. Studies reveal that 62% of the darknet is being used for illicit drug trafficking.

○ The success rate in catching traffickers using the darknet has been very low the world over.

➤ **Transactions in Cryptocurrency:** Cryptocurrency payments and doorstep deliveries, through courier services, have made darknet transactions attractive.

○ **Traffickers have become Creative and Tech Savvy:** The traffickers have adopted to new age technologies such as supplying drug and guns through drones in Punjab which have posed new challenges before the security forces.

➤ **Using more Safe and Anonymous methods:** The drug traffickers have started relying more upon courier/parcel/post after the restrictions imposed on vehicular/ship/airline movement during Covid-19 pandemic.

○ In 2022, a person was arrested for doing the drugs business through making an e-commerce dummy website.

○ In one more instance, few persons were arrested for selling drugs through e-commerce websites like amazon by listing fake products on the website.

➤ **Nexus between Drugs Lords and NRIs:** Recent investigations have revealed the connection of the drug cartels with NRIs based in Canada, Australia, Singapore, Hong Kong and several European countries along with local drug lords and gangsters in India, who have links with Khalistani terrorists and the ISI in Pakistan.

➤ **Trafficking through Local Gangs:** A new trend has emerged wherein organised gangs, which primarily used to carry out extortion activities in their local areas are being used for drug trafficking as they are ready-made logistics to carry out such activities.

National Investigation Agency

Why in News?

Recently, the **National Investigation Agency (NIA)** has registered an **FIR (First Information Report)** against two men who were previously arrested for **allegedly Radicalizing youth.**

➤ The NIA has charged the two men under various sections of the **Indian Penal Code and the Unlawful Activities Prevention Act (UAPA), 1967.**

> **Note: Radicalization** is the process by which an individual or group a**dopts extreme beliefs and ideologies that reject** or oppose the values, norms, and laws of mainstream society. It often involves exposure to propaganda, persuasive rhetoric, and persuasive individuals or groups who promote **extremist views and ideologies.**

What is the National Investigation Agency (NIA)?

➤ **About:**

○ The NIA is a **federal agency of the Indian government** responsible for investigating and prosecuting crimes related to **Terrorism, Insurgency,** **and other national security matters**.

● Federal agencies in a country typically have jurisdiction over matters that affect the country as a whole, rather than just individual states or provinces.

○ It was **established in 2009 following the Mumbai terrorist attacks in 2008,** under the **National Investigation Agency (NIA) Act, 2008**, operates under the Ministry of Home Affairs.

● The National Investigation Agency (Amendment) Act, 2019 was passed in July 2019, amending the NIA Act, 2008.

○ The NIA has the power to take over investigations of terrorism-related cases from state police forces and other agencies. It also has the authority to investigate cases across **state boundaries without obtaining prior permission from state governments.**

➤ **Functions:**

○ Collecting, analyzing, and **disseminating intelligence related to terrorism** and other national security matters.

○ Coordinating with other law enforcement agencies, both within India and internationally, in matters related to **terrorism** and national security.

○ Conducting capacity building programs for **law enforcement agencies and other stakeholders**.

➢ **Probe:**

○ The NIA can take up a probe in different ways. The State government can refer cases related to **scheduled offences to the Central government** for NIA investigation under **Section 6 of the NIA Act 2008.**

○ The Central government can also direct the NIA to investigate a scheduled offence, either within or outside India, on its own accord.

○ For prosecuting the accused under the UAPA and certain other scheduled offences, the NIA seeks the **sanction of the Central government.**

○ There is a special cell to deal with **LWE (Left Wing Extremism) cases related to terror financing.** During the investigation of a scheduled offence, the NIA can also investigate any other offence connected to it. Finally, after investigation, the cases are presented before the NIA Special Court.

What are the Changes Made under NIA (Amendment) Act 2019?

➢ **Offenses Outside India:**

○ The NIA originally had the power to investigate crimes within India, but the amended Act now **allows it to investigate crimes committed outside of India**, as long as it follows **international treaties and the laws** of the countries involved.

○ If the Central Government believes a crime has been committed outside of India but falls under the **jurisdiction of the Act,** it can instruct the NIA to investigate the case as if it was committed in India.

➢ **Widened Scope of the Law:**

○ The NIA can investigate crimes listed in the **Schedule of the NIA Act.**

● The Schedule originally included Acts like **The Atomic Energy Act, 1962**, The Unlawful Activities (Prevention) Act, 1967, and The Anti-Hijacking Act, 1982, among others.

○ With the amendment, the NIA can now also investigate cases related to,

● **Human Trafficking**,

● **Counterfeit currency or banknotes**,

● Prohibited arms,

● **Cyber-terrorism**,

● Crimes under the Explosive Substances Act, 1908.

➢ **Special Courts:**

○ The 2008 Act created Special Courts to try **cases under the Act.**

○ The 2019 amendment allows the central government to designate Sessions Courts as Special Courts to try **Scheduled Offences under the Act.**

○ Before doing so, the central government must consult with the Chief Justice of the relevant High Court. If multiple Special Courts exist in an area, the most **senior judge will assign cases.**

○ State governments can also designate Sessions Courts as Special Courts for trying scheduled offences.

What are Scheduled Offences?

➢ The schedule for the Act specifies a list of offences which are to be investigated and prosecuted by the NIA.

➢ The list includes

○ **Explosive Substances Act**

○ **Atomic Energy Act**

○ **Unlawful Activities (Prevention) Act**

○ **Anti-Hijacking Act**

○ **Suppression of Unlawful Acts against Safety of Civil Aviation Act**

○ **SAARC Convention (Suppression of Terrorism) Act**

○ **Suppression of Unlawful Acts Against Safety of Maritime Navigation and Fixed Platforms on Continental Shelf Act**

○ **Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act**

○ **Any other relevant offences under the Indian Penal Code, Arms Act and the Information Technology Act.**

○ **Narcotic Drugs and Psychotropic Substances Act**

Note:

Art and Culture

Highlights

- *Thirunelli Temple*
- *Global Buddhist Summit 2023*
- *Saurashtra Tamil Sangamam*
- *World Heritage Day*

Thirunelli Temple

Why in News?

Recently, the **Indian National Trust for Art and Cultural Heritage (INTACH)** has urged the government to conserve the **600-year-old 'Vilakkumadom'**, at the Sree Mahavishnu Temple at Thirunelli, Kerala.

What are the Concerns?

➤ The 600-year-old Vilakkumadom structure, made of exquisite granite, is located at the Sree Mahavishnu Temple in Thirunelly, Wayanad district.
  - ❍ The ongoing renovation of the temple has raised **concerns about the preservation of its heritage.**

➤ The structure has a rich history dating back to the **15ᵗʰ century AD,** and its key elements have not been given **due consideration during the renovation process**.

➤ The potential completion of the Vilakkumadom structure and the **destruction of the Chuttambalam** (rectangular structure covering the temple) has resulted in a loss of heritage and created a gap in its value and importance that could be forgotten or misinterpreted in the future.

➤ The incomplete structure had **stood as a testimony to a rich cultural heritage but has been remodeled** in an insensitive way.
  - ❍ It is said that the work was launched by the king of Coorg without the permission of the temple's custodian, Kottayam Raja. Later, the Kottayam Raja ordered the construction work, and the structure remained untouched afterwards.

What are the Key Points Related to Thirunelli Temple?

➤ **About:**

- ❍ Thirunelli Temple, also known as Amalaka or Sidha Temple, is a Vishnu temple in Wayanad district, Kerala.
- ❍ The temple gets its name from an **idol of Lord Vishnu resting on an amla tree** in a valley, which was discovered by **Lord Brahma while circling the globe.**

➤ **Architecture of Thirunelli Temple:**

- ❍ The Thirunelli temple's **architecture** follows the **traditional Kerala style.** The temple has an **inner sanctorum, surrounded by a tile roof structure, and an open courtyard** around it.
- ❍ The east entrance of the temple is decorated with a **granite lamp post.** The outer wall of the temple is bound by granite pillars that are cut in cubicle style, which is **not commonly seen in Kerala.**

What are the Efforts to Safeguard Cultural Heritage?

➤ **Global:**
- ❍ **Convention for the Safeguarding of the Intangible Cultural Heritage, 2005**
- ❍ Convention on the Protection and Promotion of the Diversity of Cultural Expressions, 2006.
- ❍ **United Nations World Heritage Committee:** India has been elected as a member of the committee for the term 2021-25.

➤ **Indian:**
- ❍ **Adopt a Heritage Programme**
- ❍ **Project Mausam**
- ❍ **Article 49 (DPSP)**
- ❍ **AMASR Act** and **National Monuments Authority (NMA)**
- ❍ **PRASHAD Scheme**

Note:

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Global Buddhist Summit 2023

Why in News?

Recently, the Ministry of Culture in partnership with **International Buddhist Confederation (IBC)** has organized the 1st Global Buddhist Summit 2023, which aims to enhance cultural and diplomatic relations with other countries.

What is the IBC?

➢ IBC is the **biggest religious Buddhist confederation.**

➢ The purpose of this body is to create a **role for Buddhism on the global stage so as to help to preserve heritage**, share knowledge, and promote values and to represent a united front for Buddhism to enjoy meaningful participation in the global discourse.

➢ In November 2011, New Delhi was host to **Global Buddhist Congregation (GBC)**, where the attendees unanimously adopted a resolution to form an international umbrella body – the **International Buddhist Confederation (IBC).**

➢ **HQ:** Delhi, India.

What is the Global Buddhist Summit 2023?

➢ **About:**
  ○ Buddhist monks from various countries took part in the two-day Summit.
  ○ Eminent scholars, Sangha leaders and **Dharma practitioners from all over the world attended** the conference.
    ● There are 173 international participants comprising 84 Sangha member and 151 Indian

delegates comprising 46 Sangha members, 40 nuns and 65 laity from outside Delhi.

How can the Buddha's Teachings help Address today's Global Challenges?

➢ The key teachings of Buddha include the **Four Noble Truths and the Noble Eightfold Path.**
  ○ **Four noble truths:**
    ● Suffering (dukkha) is the essence of the world.
    ● Every suffering has a cause – Samudya.
    ● Suffering could be extinguished – Nirodha.
    ● It can be achieved by following the Atthanga Magga (Eight-Fold Path).
  ○ **Noble Eightfold Path:**
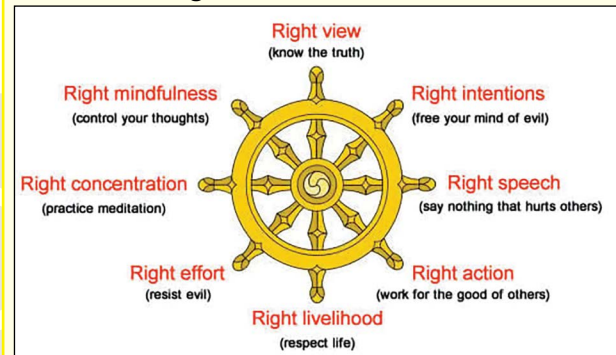
➢ The world is facing the most challenging times of the century due to war, economic crisis, **terrorism** and **climate change**, and all these contemporary global challenges can be addressed through the teachings of Lord Buddha.

➢ These teachings of Budha can provide **solutions to global problems in several ways.** For example, the teachings on compassion, non-violence, and interdependence can help address **conflicts and promote peaceful coexistence.**

➢ Teachings on ethical conduct, social responsibility, and generosity can help address issues of **inequality and promote social justice.**
  ○ The teachings on mindfulness, simplicity, and non-harming can help address **environmental degradation and promote sustainable living.**

➢ **Theme:** Responses to Contemporary Challenges: Philosophy to Praxis.
  ○ **Sub Themes:**
    ● Buddha Dhamma and Peace
    ● Buddha Dhamma: Environmental Crisis, Health and Sustainability

Note:

- Preservation of Nalanda Buddhist Tradition
- Buddha Dhamma Pilgrimage, Living heritage and Buddha Relics: a resilient foundation to India's centuries-old cultural links to countries in South, Southeast and East Asia.

➢ **Objectives:**
  - The summit aims to discuss today's pressing global issues and look for answers in the Buddha Dhamma that is based on universal values.
  - The aim is to set up a forum for the lay **Buddhist scholars and Dharma Masters.**
  - It seeks to delve into **Buddha's message for Peace, Compassion and Harmony** with the objective of working towards **Universal Peace and Harmony**, in accordance with the **core values of Dharma** and produce a document for further academic research, to study its viability for use as a **tool for the conduct of international relations on the global stage.**

➢ **Significance for India:**
  - This global Summit will mark the significance and importance of India in Buddhism, as **Buddhism was born in India.**
  - This summit will also be a medium to enhance the cultural and diplomatic relationships with other countries, especially with the countries which embrace the Buddhist Ethos.

What is the Role of Buddhism in India's Soft Power Strategy?

➢ **Cultural Diplomacy:**
  - One of the ways in which Buddhism has been used in India's soft power strategy is **through cultural diplomacy.**
    - This involves promoting Indian culture, including Buddhism, through various channels such as art, music, films, literature, and festivals.
  - For example, the **Indian Council for Cultural Relations (ICCR)** has organized several cultural events in Buddhist countries, such as Sri Lanka, Myanmar, Thailand, and Bhutan, to showcase India's cultural heritage and strengthen cultural ties.

➢ **Education and Capacity-Building:**
  - Another way in which Buddhism can be used in India's soft power strategy is through education and capacity-building.

- India has established **several Buddhist institutions and centers of excellence**, such as the Nalanda University and the Central Institute of Higher Tibetan Studies, to promote **Buddhist studies and research.**
- In 2022, the foundation stone for the **Dhamma Dipa International Buddhist University (DDIBU)** in Tripura was laid,
  - DDIBU is the first **Buddhist-run university in India to offer Buddhist education** along with courses in other disciplines of modern education as well.
- India also offers scholarships and training programs to Buddhist students and monks from other countries, such as Bhutan, Sri Lanka, Myanmar, and Nepal, to enhance their knowledge and skills.

➢ **Bilateral Exchanges and Initiatives:**
  - In terms of bilateral relations, India has sought to deepen its ties with Buddhist countries, such as Sri Lanka, Myanmar, Thailand, Cambodia, and Bhutan, through various initiatives.
  - India has signed several agreements with Sri Lanka, such as the **Bilateral Investment Promotion and Protection Agreement (BIPA)**, to boost economic cooperation.
    - India has also provided assistance to Buddhist countries for the restoration and preservation of their cultural heritage sites, such as the Bagan temples in Myanmar and the Stupa in Nepal.
  - India and Mongolia also renewed the **Cultural Exchange Program** until 2023 under which **10 dedicated ICCR scholarships for studying 'Tibetan Buddhism'** have been allocated for Mongolians to study in specialized institutes of CIBS, Leh and CUTS, Varanasi.

Saurashtra Tamil Sangamam

Why in News?

Nearly 3,000 people are expected to attend **Saurashtra Tamil Sangamam**. The festival aims to showcase **"age-old ties"** and cultural links between two coastal **States of Gujarat and Tamil Nadu.**

➢ The **Saurashtra Tamil Sangamam**, is similar to the **Kashi Tamil Sangamam**.

Note:

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What is Saurashtra Tamil Sangamam?

➢ **Background:**
  ○ Centuries ago, invasions between 600 and 1000 years ago forced numerous individuals to **migrate from Saurashtra in Gujarat and establish new settlements in Tamil Nadu's districts around Madurai**, now known as **Tamil Saurashtrian.**
    ● People of Gujarati origin have settled in various places in TamilNadu, such as **Tiruchi, Thanjavur, Kumbakonam, and Salem,** creating cultural connections between **Gujarat and Tamil Nadu.**

➢ **Highlights of the Festival:**
  ○ The festival aims to **highlight the cultural diversity and strength of India** and to r**econnect people with pilgrimage destinations and cultural heritage.**
  ○ This event will take place at multiple locations in Gujarat such as **Somnath, Dwarka and the Statue of Unity** at Kevadia.

➢ **Significance of Logo:**
  ○ It is a representation of the **merging of the silk fabric expertise of the Tamil Saurashtrian people** and the **textile industry of Gujarat.**
  ○ The confluence of the t**wo cultures is depicted through the Somnath temple**, the place of origin of the Saurashtrians, and the **Meenakshi temple near Madurai, where they settled.**
  ○ A young woman, posing in a **dancing posture with dandiya (Gujarat)and bharatanatyam (Tamil Nadu),**embodies the coming together of two art forms.
  ○ The **upper tricolour signifies the message of 'Ek Bharat Shreshtha Bharat,'** while the **blue colour** on the lower side **symbolises the merging of the two states with the sea.**

What is the Significance of Sangamam?

➢ **Cultural Security:** It is as important as other forms of security, such as border security, economic security, food security, social security, and cybersecurity.
  ○ **Protecting cultural links and heritage through Sangamam** is essential for maintaining the identity of a nation and has witnessed a **cultural revival of India.**

➢ **Community Building and Social Cohesion:** Sangamam serves as a **platform for the community to come together, socialise, and build a sense of community**.
  ○ It also promotes **mutual respect, understanding, and harmony** among people from different walks of life fostering a **sense of unity and togetherness.**

What is Ek Bharat Shreshtha Bharat?

➢ **About:** It was launched in 2015 to promote engagement amongst the people of different States/UTs so as to enhance **mutual understanding and bonding between people of diverse cultures**, thereby securing stronger unity and integrity of India.

➢ **Ministry Involved:** The **Ministry of Education** has been designated as the Nodal Ministry for co-ordination of the programme.

➢ **Activities Under the Scheme:** Every State and UT in the country would be paired with another State/UT for a time period, during which they **would carry out a structured engagement with one another in the spheres of language, literature, cuisine, festivals, cultural events, tourism etc.**

World Heritage Day

Why in News?

The **International Council on Monuments and Sites (ICOMOS)** declared April 18th as the **International Day for Monuments and Sites,** also known as **World Heritage Day,** in 1982.

➢ The **theme for this year is "Heritage Changes,"** which focuses on the role of **cultural heritage in climate action** and its importance in protecting vulnerable communities.

Note:

What is the Status of Heritage Sites in India?

➤ **About**:
  ○ India is currently home t**o 40 UNESCO World Heritage Sites**, making it the country with the sixth-largest number of sites in the world.
  ○ Out of these, **32 are cultural sites, 7 are natural sites, and one is a mixed-type site, the Khangchendzonga National Park.**
    ● The cultural heritage sites in India include **ancient temples**, forts, palaces, mosques, and archaeological sites that reflect the rich history and diversity of the country.
    ● The **natural heritage sites in India include national park**s, wildlife reserves, and natural landscapes that showcase the country's unique biodiversity and ecological significance.
  The mixed-type site in India, the **Khangchendzonga National Park**, is known for its **cultural significance as well as its biodiversity,** as it is home to several rare and endangered species.

UNESCO World Heritage Sites

UTTARAKHAND
● Nanda Devi and Valley of Flowers National Parks

HIMACHAL PRADESH
● Great Himalayan National Park Conservation Area

DELHI
● Humayun's Tomb
● Qutb Minar and its Monuments
● Red Fort Complex

CHANDIGARH
● The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement

BIHAR
● Archaeological Site of Nalanda Mahavihara at Nalanda
● Mahabodhi Temple Complex at Bodh Gaya

SIKKIM
● Khangchendzonga National Park

ASSAM
● Kaziranga National Park
● Manas Wildlife Sanctuary

RAJASTHAN
● Hill Forts of Rajasthan
  1. Jaisalmer Fort, 2. Chittorgarh Fort,
  3. Kumbhalgarh Fort, 4. Gagron Fort,
  5. Ranthambore Fort, 6. Amber Fort
● Keoladeo National Park
● The Jantar Mantar, Jaipur
● Jaipur City, Rajasthan

GUJARAT
● Dholavira: a Harappan City
● Historic City of Ahmadabad
● Champaner-Pavagadh Archaeological Park
● Rani-ki-Vav (the Queen's Stepwell) at Patan

WEST BENGAL
● Sundarbans National Park

ODISHA
● Sun Temple, Konark

MAHARASHTRA
● Ellora Caves
● Ajanta Caves
● Elephanta Caves
● Chhatrapati Shivaji Terminus (formerly Victoria Terminus)
● Victorian Gothic and Art Deco Ensembles of Mumbai

UTTAR PRADESH
● Agra Fort
● Taj Mahal
● Fatehpur Sikri

GOA
● Churches and Convents of Goa

MADHYA PRADESH
● Buddhist Monuments at Sanchi
● Rock Shelters of Bhimbetka
● Khajuraho Group of Monuments

KARNATAKA
● Group of Monuments at Pattadakal
● Group of Monuments at Hampi

TELANGANA
● Kakatiya Rudreshwara (Ramappa) Temple

TAMIL NADU
● Group of Monuments at Mahabalipuram
● Great Living Chola Temples

■ Western Ghats

Mountain Railways of India
● Darjeeling Himalayan Railway – West Bengal
● Nilgiri Mountain Railways – Tamil Nadu
● Kalka Shimla Railway – Himachal Pradesh

FACTS

○ **Total Number of World Heritage Sites in India:** 40
○ **Total Cultural Heritage Sites:** 32
○ **Total Natural Sites:** 7 (Kaziranga National Park, Manas Wildlife Sanctuary, Western Ghats, Sundarbans National Park, Nanda Devi and Valley of Flowers National Parks, Great Himalayan National Park Conservation Area, Keoladeo National Park)
○ **Mixed Site:** 1 (Khangchendzonga National Park)
○ **World Heritage Sites Listed First:** Taj Mahal, Agra Fort, Ajanta Caves and Ellora Caves (all in 1983)
○ **Latest Addition (2021):** Harappan city of Dholavira (40th site), Kakatiya Rudreshwara (Ramappa) Temple (39th site)
○ **Countries With the Most UNESCO World Heritage Sites:** Italy (58), China (56), Germany (51), France (49), Spain (49)
○ **India is 6th in number of World Heritage Sites in the World**

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Note:

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➢ **Constitutional and Legislative Provisions Related to Indian Heritage:**

○ **Directive Principles of State Policy: Article 49** puts obligation on the State to **protect every monument or place or object of artistic or historic interest,** declared by or under law made by Parliament to be of national importance.

○ **Fundamental Duty: Article 51A of Constitution** states that it shall be the duty of every citizen of India to value and preserve the rich heritage of our culture.

○ **Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) 1958:** It is an act of the Parliament of India that provides for the **preservation of ancient and historical monuments and archaeological sites and remains of national importance**, for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects.

➢ **Heritage Influence on India's Cultural Identity:**

○ **StoryTellers of India's Glory**: Heritage is the **legacy of physical artefacts and intangible attributes of society** that are inherited from past generations, maintained in the present, and preserved for the benefit of future generations.

○ **Reflection of Unity in Diversity:** India is a museum of **different types, communities, customs, traditions, religions, cultures, beliefs, languages, castes and social system.**

● But even after having so much external diversity, in Indian culture there is **Unity in Diversity.**

○ **Tolerating Nature:** Indian society gave every culture the opportunity of prospering that is reflected in its diverse heritage. It does not try to **suppress diversity in favour of uniformity.**

Issues Related to Heritage Management in India:

➢ **Lack of Centralised Database for Heritage Sites:** India lacks a complete **national level database** with state wise distribution of heritage structure.

○ **Indian National Trust for Art & Cultural Heritage (INTACH) has inventoried about 60,000 buildings in around 150 cities** which is still only the tip of the iceberg as there are estimated more than 4000 heritage towns and cities in the country.

➢ **Outdated Mechanism of Excavation and Exploration:** Due to the prevalence of outdated mechanisms, **Geographic Information System** and **Remote Sensing are rarely used in exploration.**

○ Also, local bodies involved in urban heritage projects are often not equipped enough to handle heritage conservation.

○ **Environmental Degradation and Natural Disasters:** Heritage sites in India are vulnerable to environmental degradation and natural disasters, such as **pollution, erosion, flooding, and earthquakes, which can cause irreversible damage** to their physical structures and cultural significance.

● For example, the **Taj Mahal in Uttar Pradesh, a UNESCO World Heritage Site and an iconic symbol of India's cultural heritage,** has faced challenges due to air pollution, which has caused **yellowing and deterioration of its marble.**

○ **Unsustainable Tourism:** Popular heritage sites in India **often face high tourism pressure**, which can result in issues such as **overcrowding, unregulated visitor activities, and inadequate visitor management.**

● Uncontrolled tourism can cause damage to **heritage structures, impact the local environment, and disrupt the local community's way of life.**

➢ **Recent Government Initiatives Related to Heritage Conservation: ?**

○ **Adopt a Heritage Programme**

○ **Project Mausam**

Basava Jayanti

Basavanna, a 12th century poet and philosopher, was the founder of Lingayatism.

He was minister to Bijjala, a Kalachurya king who succeeded the Chalukyas and ruled from Kalyana.

He founded the Anubhava Mantapa, which is often claimed to be the first Parliament of the world established in Basavakalyana (then called Kalyana) where Sharanas (poets and socio-spiritual reformers) deliberated for fundamental social change.

The Sharana movement he presided over attracted people from all castes, and like most strands of the Bhakti movement, produced a corpus of literature, the vachanas.

Note:

History

Highlights

- *The Life and Legacy of Dr. Bhim Rao Ambedkar*

The Life and Legacy of Dr. Bhim Rao Ambedkar

Why in News?

India Celebrates Birth Anniversary of **Dr. Bhim Rao Ambedkar** on April 14, 2023.

Who was Dr. BR Ambedkar?

➢ **About:**
  ○ **Dr. Bhimrao Ramji Ambedkar** was a prominent **Indian jurist, economist, social reformer, and politician.**
  ○ He was born on **April 14, 1891** in **Mhow, Madhya Pradesh.**
    ● His father, **Subedar Ramji Maloji Sakpal**, was a well-read person and follower of **Sant Kabir.**

➢ **Education:**
  ○ Ambedkar earned his **Bachelor's degree from Bombay University** and went on for further studies to **Columbia University in New York and London School of Economics.**

➢ **Contributions**:
  ○ In **1924**, he started an **Association for the welfare of the depressed classes** and in **1927,** he started the **Bahishkrit Bharat newspaper** to address the cause of the depressed classes.
    ● He also led the **Mahad Satyagraha in March 1927**.
      ■ He participated in all three **Round Table Conferences.**
      ■ In **1932**, Dr. Ambedkar signed the **Poona pact with Mahatma Gandhi,** which abandoned the idea of separate electorates for the depressed classes **(Communal Award).**

  ■ In **1936,** he formed the **Independent Labour Party** to safeguard the interests of the depressed classes.
  ■ In 1942, Dr. Ambedkar was appointed to the **Executive Council of the Governor General of India as a Labour member** and elected to the **Constituent Assembly from Bengal in 1946.**
    ◆ He was the **Chairman of Drafting Committee** and remembered as the **Father of the Indian Constitution.**
  ○ In 1947, Dr. Ambedkar became **Minister of Law in the first Cabinet of independent India.**
    ● **He resigned from the cabinet in 1951,** over differences on the Hindu Code Bill.

➢ **Additional Details:**
  ○ Later in life, He **converted to Buddhism**. He passed away on **December 6, 1956, which is commemorated as Mahaparinirvan Diwas**
    ● **Chaitya Bhoomi** is a memorial to B R Ambedkar, located in Mumbai.
  ○ He was also awarded **India's highest civilian honour the Bharat Ratna in 1990.**

➢ **Important Works:**
  ○ **Journals:**
    ● Mooknayak (1920)
    ● Bahishkrit Bharat (1927)
    ● Samatha (1929)
    ● Janata (1930)
  ○ **Books:**
    ● Annihilation of Caste
    ● Buddha or Karl Marx
    ● The Untouchable: Who are They and Why They Have Become Untouchables
    ● Buddha and His Dhamma
    ● The Rise and Fall of Hindu Women

Note:

○ **Organisations:**
- Bahishkrit Hitkarini Sabha (1923)
- Independent Labor Party (1936)
- Scheduled Castes Federation (1942)

➢ **Relevance of Ambedkar in Present Times:**
○ His **ideas and contributions continue to shape India's social and political landscape**, particularly in the fight against caste-based discrimination and the struggle for social justice.

○ His **vision for an inclusive and egalitarian society**, as enshrined in the Indian Constitution, **remains a guiding principle for the country's future development**.

- Additionally, **his emphasis on education as a means of empowerment is particularly relevant today** as India seeks to achieve its full potential as a global leader.

○ Dr. Ambedkar's legacy is an **integral part of India's national identity and his ideas continue to inspire generations.**

■■■

Geography

Highlights

- *Protests in Chhattisgarh Over Coal Mining*

Protests in Chhattisgarh Over Coal Mining

Why in News?

Recently, the **Adani Enterprises Limited (AEL) coal mining** project in Chhattisgarh has sparked a controversy due to its impact on the environment and local communities.

➤ AEL has been mining coal in the **Parsa East and Kente Basan coal blocks** of **Chhattisgarh's Surguja district for over a decade now.**

➤ For more than a year now, locals, largely from the **Gond tribe**, in Hariharpur, Ghatbarra, and Fattepur villages of Chhattisgarh, have been holding a sit-in at the entrance to Hariharpur against mining.

What are the Impacts of the Mining Operations?

➤ **Impact on the Environment:**

- Mining in the region will lead to the loss of about 8 lakh trees of the Sal forests in **Hasdeo Aranya**. This will end up affecting the catchment of the **Hasdeo river.**

- Around the time that mining was beginning, there had been an attempt to save the trees. **The National Green Tribunal (NGT),** in 2014, stayed the mining licenses, ordering studies on the environmental impact of the mines. However, the **Supreme Court** set the NGT order aside, and mining began.

➤ **Impact on Locals:**

- The mining project has adversely affected the lives of locals. As the mine has consumed forest land.
  - **'Save Hasdeo Campaign'** is also being run to save the **forests of Hasdeo.**
- The mines have **destroyed grazing land for cattle, affected the groundwater level,** and the **blasting** has loosened the earth around borewells, and tube wells people had been using for minor farming.

- The stream next to Hariharpur, once used to have water and fish throughout the year, has turned into a muddy stream since the digging has affected the catchment area.

What is Coal?

➤ **About:**

- It is a type of fossil fuel found in the form of **sedimentary rocks and is often known as 'Black Gold'.**

- It is a conventional source of energy and is widely available. It is used as a domestic fuel, in industries such as iron and steel, steam engines and to generate electricity. Electricity from **coal is called thermal power.**

- The leading coal producers of the world include **China, US, Australia, Indonesia, India.**

➤ **Distribution of Coal in India:**

- **Gondwana Coal Fields (250 million years old):**
  - Gondwana coal makes up to 98% of the total reserves and 99 % of the production of coal in India.
  - It forms **India's metallurgical grade as well as superior quality coal and has a high ash content**.
  - It is found in Damodar (Jharkhand-West Bengal), Mahanadi (Chhattisgarh-Odisha), Godavari (Maharashtra), and Narmada valleys.

- **Tertiary Coal Fields (15 – 60 million years old):**
  - Carbon content is **very low but is rich in moisture and sulphur.**
  - Tertiary coalfields are mainly confined to extra-peninsular regions.
  - **Important areas** include Assam, Meghalaya, Nagaland, Arunachal Pradesh, Jammu and Kashmir, Himalayan foothills of Darjeeling in West Bengal, Rajasthan, Uttar Pradesh, and Kerala.

Note:

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- ➢ **Classification:**
  - ❍ **Anthracite** (80 - 95% carbon content, found in small quantities in J&K).
  - ❍ **Bituminous** (60 - 80% carbon content and is found in Jharkhand, West Bengal, Odisha, Chhattisgarh and Madhya Pradesh).
  - ❍ **Lignite** (40 to 55% carbon content, high moisture content and is found in Rajasthan, Lakhimpur (Assam) and Tamil Nadu).

  - ❍ **Peat** (less than 40% carbon content and it is in the first stage of transformation from organic matter (wood) to coal).
- ➢ **Coal Reserves:**
  - ❍ Top States in terms of total coal reserves in India are **Jharkhand, Odisha, Chhattisgarh, West Bengal, and Madhya Pradesh.**

■■■

Miscellaneous

Highlights

- Safe City Project
- India's Fighter Jets
- First Waterbodies Census
- Off-Budget Liabilities
- Ningaloo Eclipse

- Twitter's Hateful Conduct Policy and Deadnaming
- Digital Highways
- Mangrove Pitta Bird
- Regulating Online Money Gaming
- World Chagas Disease Day

Safe City Project

Why in News?

Delhi is all set to implement the **Safe City Project,** **which aims to provide better security for citizens, particularly women.**

What is the Safe City Project?

➢ The Safe City Project is an initiative of the **Ministry of Home Affairs,** in collaboration with the **Ministry of Women and Child Development under the Nirbhaya Fund**, aimed at creating a **safe, secure, and empowering environment for women and girls in public spaces**.

➢ The project is being implemented in eight metro cities, including **Delhi, Mumbai, Chennai, Kolkata, Hyderabad, Ahmedabad, Lucknow, and Bengaluru.**
  - Under the project, CCTV cameras will be installed, along with a command-and-control center with facilities for video analytics, AI, machine learning, and facial recognition.

➢ The **cost of the projects is shared in a 60:40 ratio between the Central government.**

What is the Scope of the Delhi Project?

➢ **About:**
  - The **Delhi project is fully funded by the Central government** and will be implemented by the **Delhi Police** through the **Centre for Development of Advanced Computing (C-DAC).**
  - RailTel and NEC India have been appointed by C-DAC to install CCTV cameras and connect them to feeders and main servers, respectively.

  - Additionally, **88 Prakhar Vans** equipped with **mobile data terminals, body-worn cameras,** and other features will be deployed across the city.

➢ **Enhancing Policing and Security through the Project**:
  - The Safe City Project in Delhi is an initiative that aims to enhance policing and security in the city using **AI-based applications.**
    - The project will use AI to assess crowds in real-time, picking up behavioral traits and discrepancies.
    - AI will immediately notify c**ommand and control centers in police headquarters,** district offices, and police stations in case of deviations that indicate impending crime.
    - The project's goal is to **prevent crime by providing real-time information to police officers and enabling them to take timely action.**
  - The project is a step forward towards a safer and more secure environment for all.

India's Fighter Jets

Why in News?

The **Indian Air Force (IAF),** one of the world's largest Air Forces, face challenges in modernizing its fleet, as delays in procurement have led to a **shortfall in its fighter squadrons.**

➢ An IAF representative informed the Parliamentary standing committee on Defence that the IAF has only **31 fighter squadrons, against the sanctioned strength of 42.**

Note:

What is Fighter Squadron?

➢ **About:**

- ○ A **fighter squadron is a military unit consisting of fighter aircraft and the pilots who fly them.**
  - ● It is a fundamental component of an air force and is responsible for **conducting air operations in a combat zone.**
- ○ A typical fighter squadron consists of **18 fighter aircraft.**
- ○ They are an essential component of any modern air force and are tasked with a wide range of missions, including air superiority, and ground attack.

➢ **Reasons for the Shortfall:**

- ○ **Delays in procurement have contributed to the shortfall,** as many of the IAF's fighter jets are ageing and need to be replaced.

➢ **Status of the Procurement of Fighter Jets:**

- ○ India has an ambitious plan to acquire over 500 fighter jets, with most of them being for the IAF.
  - ● Many of these jets are still in **various stages of development,** and their manufacturing and timely deliveries are critical.
- ○ The IAF has in total contracted 272 SU-30s.
- ○ A deal to procure 12 additional **SU-30MKI** aircrafts to replace the ones lost in accidents and 21 additional MIG-29s from Russia has been stuck, though both IAF and Russian officials state that it has only been delayed but is on track.

What Different Types of Aircrafts India Has?

➢ **Light Combat Aircraft (LCA):**

- ○ **Designed to replace ageing Mig 21** fighter planes
- ○ Developed by the **Aeronautical Development Agency (ADA)** under the Department of Defence Research and Development.
- ○ Manufactured by **Hindustan Aeronautics Limited (HAL).**
- ○ **Lightest, smallest and tailless multi-role supersonic fighter aircraft** in its class.
- ○ Can carry a range of **air-to-air, air-to-surface, precision-guided weapons.**
- ○ Air-to-air refueling capability, maximum payload capacity of 4000 kg, maximum speed of **Mach 1.8** and Range of 3000 km.

➢ **Multi-Role Fighter Aircraft (MRFA):**

- ○ Designed to perform various missions such as **air-to-air combat, air-to-ground attack, and electronic warfare.**
- ○ IAF pursuing the procurement of 114 MRFA to replace the aging fleet of Soviet-era MiG-21.
- ○ Procurement will be carried out under the **Make in India initiative.**
- ○ Selected vendor will have to set up a production line in India and transfer technology to local partners.

➢ **MiG-21:**

- ○ Supersonic jet fighter and interceptor aircraft designed by the erstwhile USSR in the 1950s.
  - ● Widely used combat aircraft in history, with more than 11,000 units built and over 60 countries operating it.
- ○ **IAF acquired its first MiG-21 in 1963** and has since **inducted 874 variants** of the aircraft
- ○ Involved in several wars and conflicts involving India. Involved in many accidents and crashes, earning it the nickname **"flying coffin".**
- ○ IAF plans to phase out the **MiG-21 by 2024 and replace it with more modern fighters.**

➢ **Advanced Medium Combat Aircraft (AMCA):**

- ○ An Indian program to develop a 5th generation stealth, multirole combat aircraft for the IAF and the Indian Navy
- ○ Designed and developed by the ADA of the **DRDO**, in collaboration with Hindustan Aeronautics Limited (HAL) and other public and private partners.
- ○ Expected to have features such as a **stealth airframe, internal weapons bay, advanced sensors, data fusion, supercruise capability and swing-role performance**
- ○ Started in 2008 as a **successor to the Sukhoi Su-30MKI**
  - ● **First flight planned for 2025** and production is expected to start after 2030.

➢ **Sukhoi Su-30MKI:**

- ○ **Twin-engine, two-seat, multirole fighter aircraft developed by Russia's Sukhoi** and built under license by India's HAL for the IAF.
- ○ Designed to perform air superiority, ground attack, electronic warfare, and maritime strike missions
- ○ Entered **service with the IAF in 2002 and has been deployed in several conflicts and exercises**

Note:

➤ **Twin-Engine Deck-Based Fighter (TEDBF):**

  ○ Manufactured for the Navy to replace the Navy's MiG-29K.

  ○ **First twin-engine aircraft project in India for dedicated carrier-based operations.**

  ○ Equipped predominantly with **domestic weapons.**

  ○ Maximum **mach number of 1.6**, service ceiling of 60,000 feet, maximum takeoff weight of 26 tons, unfolded wing.

➤ **Rafale:**

  ○ **French twin-engine and multirole fighter aircraft.**

  ○ **India procured 36 Rafale jets** for Rs 59,000 crore in 2016.

  ○ Equipped to perform **air supremacy, interdiction, aerial reconnaissance, ground support, in-depth strike, anti-ship strike, and nuclear deterrence missions.**

  ○ The weapons package of Rafale jets includes **Meteor missile, Scalp cruise missile, and MICA missile system.**

    • **Meteor missile** is the next generation of Beyond Visual Range air-to-air missile designed to revolutionize air-to-air combat, capable of targeting **enemy aircraft from 150 km away.**

    • SCALP Cruise Missiles **can hit targets 300 km away,** while **MICA missile system** is a versatile air-to-air missile capable of **hitting targets up to 100 km away.**

  ○ Flight hour capacity of **30,000 hours in operations.**

Note:

➤ In a more recent move, **INS Vikrant, India's first indigenous aircraft carrier,** was commissioned in Sept 2022 and is currently in the process of getting operationalised.

➤ Recently, the **Naval variant of India's indigenous Light Combat Aircraft (LCA) made its maiden landing** on board the INS Vikrant.

First Waterbodies Census

Why in News?

The **Ministry of Jal Shakti** recently released the report of its **first-ever census of water bodies,** revealing crucial insights into the country's water resources.

➤ The census provides an **extensive inventory of water sources in India**, highlighting disparities between **rural and urban areas and varying levels of encroachment.**

What is the Census of Waterbodies?

➤ **About:**

  ○ The census of waterbodies was conducted in conjunction with the **6th Minor Irrigation Census for 2017-18.**

  ○ It defines a waterbody as **"all-natural or man-made units bounded on all sides with some or no masonry work used for storing water for irrigation or other purposes."**

  ○ The census aimed to provide an 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.

➤ **Key Insights from the Census:**

  ○ The census enumerated a total of 24,24,540 water bodies across the country, with **West Bengal accounting for the most (7.47 lakh)** and **Sikkim the least (134).**

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

State/UT	Count
Sikkim	134
Chandigarh	188
Delhi	893
Arunachal Pradesh	993

WATERBODIES LOST TO ENCROACHMENTS

State	Count
Uttar Pradesh	15,301
Tamil Nadu	8,366
Andhra Pradesh	3,920
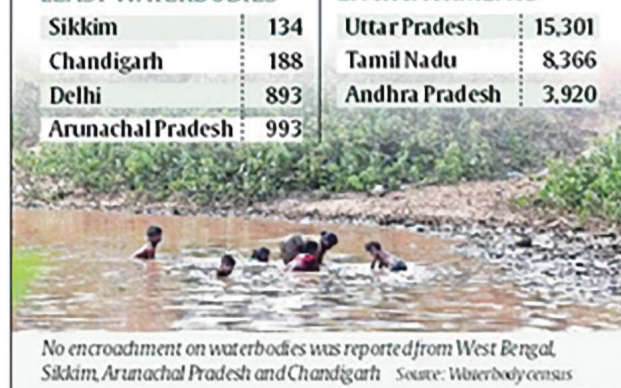
No encroachment on waterbodies was reported from West Bengal, Sikkim, Arunachal Pradesh and Chandigarh   Source: Waterbody census

○ The report reveals that:
- **West Bengal** has the **highest number of ponds and reservoirs**
- The top district in terms of waterbodies is South 24 Parganas in West Bengal.
  - **Andhra Pradesh** has the **highest number of tanks**
  - **Tamil Nadu** has the **highest number of lakes**
  - **Maharashtra** leads in **water conservation schemes**
○ The report highlights that 97.1% of the waterbodies are in rural areas, with only 2.9% in urban areas.
○ Most of **the waterbodies are ponds, followed by tanks,** reservoirs, water conservation schemes, percolation tanks, check dams, lakes, and others.

➢ **Encroachment of Waterbodies:**
○ The census also collected data on the encroachment of waterbodies for the first time, revealing that **1.6% of all enumerated waterbodies are encroached,** with **95.4% of encroachments in rural areas** and the remaining **4.6% in urban areas.**
- A significant percentage of encroachments cover more than 75% of the waterbody's area.

➢ **Significance:**
○ The census provides crucial data for **policymakers to make informed decisions regarding water resource management** and conservation.
○ It **highlights disparities between rural and urban areas** and the need for effective measures to **prevent encroachment.**
○ The data collected in the census can serve as a **baseline for future assessments of India's water resources,** helping to monitor changes and progress toward sustainable water management.

Off-Budget Liabilities

Why in News?

The Indian government ended its practice of off-budget borrowings in FY2022 to increase fiscal transparency. And it is planning to pre-pay the remaining such Off-Budget liabilities.

➢ The **Comptroller and Auditor General (CAG) of India** and the **15th Finance Commission** had red-flagged the off-Budget funding of welfare schemes through public sector entities and had urged the Centre to come clean on these.

What are Off-Budget Liabilities?

➢ Off-Budget liabilities refer to debts taken by state-run agencies to finance government programs and subsidies outside the traditional budget.

➢ These agencies raise funds through bonds that offer higher interest rates than **government securities (G-secs).**

➢ But since the liability of the loan is not formally on the Centre, the l**oan is not included in the national fiscal deficit.** This helps keep the country's fiscal deficit within acceptable limits.

➢ By end-FY21, the Centre had off-budget liabilities close to Rs 6.7 trillion.

➢ The outstanding off-budget liabilities of the Centre include about **Rs 49,000 crore for the Pradhan Mantri Awas Yojana-Rural,** Rs 20,164 crore for various irrigation projects, Rs 12,300 crore for **Swachh Bharat Mission Grameen,** etc.

What are the Government's Efforts to Eliminate Off-Budget Liabilities?

➢ **Efforts:**
○ The Indian government took a significant step towards fiscal transparency by **ending its practice of off-budget borrowings** through state-run agencies in the FY22 budget.
○ The government also took over Rs 5 trillion or 75% of its off-Budget liabilities from the **National Small Saving Fund (NSSF)** in FY21-FY22.
○ However, the remaining off-Budget liabilities of Rs 1.7 trillion are proving challenging to eliminate due to **bondholders' reluctance to forego high-yield bonds.**

➢ **Challenges:**
○ Bondholders are **unwilling to give up their high-yield bonds and lose interest income for the remaining period of the bonds**.
- The investors are worried that they won't find other secure and highly rated bonds with similar attractive coupon rates to invest in if they accept the prepayment offer.
○ Furthermore, **bondholders usually demand a premium or a higher interest rate than promised**

to them to recoup their loss of interest income in the residual period of the bonds, in case an issuer wants to prepay.

➢ **Implications of Off-Budget Liabilities:**
  ○ Pushing the government's debt-to-GDP to a 15-year high of about 61.6% in FY21.
  ○ Hindering the government's efforts to achieve financial transparency and accountability.
  ○ Diverting funds from priority sectors such as health, education, and infrastructure development to finance other government programs and subsidies.
  ○ Contributing to the accumulation of non-performing assets in state-run agencies.

Ningaloo Eclipse

Why in News?

The Ningaloo Eclipse was witnessed on April 20, 2023. It is a rare '**hybrid solar eclipse**' , caused by the curvature of the earth's surface and a shift from annular to total eclipse.

➢ The last one was seen in **2013,** and the next one will appear in **2031.**

What are the Major Points Related to Hybrid Solar Eclipse?

➢ A total solar eclipse was visible in **Australia, Timor-Leste and Indonesia (West Papua and Papua)**.
  ○ At the same time, a partial solar eclipse was visible in **southeast Asia, East Indies, Australia, Philippines and New Zealand.** It was not visible in India.
➢ Its uniqueness is such that it has already been named as **Ningaloo**, **a part of western Australia from which the eclipse was most visible.**
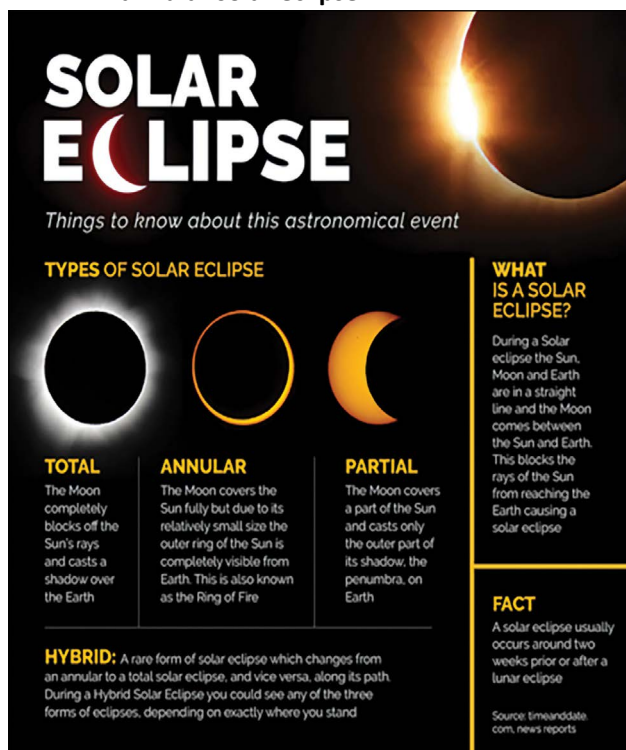 ○ The Ningaloo region is also designated as a **UNESCO World Heritage Site.**

What is a Solar Eclipse?

➢ **About**:
  ○ A solar eclipse is a **natural phenomenon that occurs when the Moon passes between the Sun and the Earth,** casting a shadow on the Earth's surface, **resulting in a temporary darkening of the Sun.**
    ● The moon's shadow has two parts: **a central region (umbra)** and an **outer region (penumbra).**

➢ **Types of Solar Eclipse:**
  ○ **Total Solar Eclipse:** A total eclipse happens when the **Moon completely blocks out the Sun** while passing between the Earth and the Sun.
    ● The **Baily's Beads effect**, also known as **the diamond ring effect,** is a phenomenon that occurs during a total solar eclipse or annular solar eclipse.
  ○ **Annular Eclipse**: It happens when the **Moon is at its farthest point from the Earth.**
    ● The sun is covered in such a way that **only a small ring-like sliver of light is seen from the sun's disc**. This ring is known as **the ring of fire**.
  ○ **Partial Eclipse:** It occurs when the **Moon passes between the Earth and the Sun but is not perfectly aligned**.
    ● Hence, only a part of the Sun appears covered.
  ○ **Hybrid Eclipse**: A hybrid solar eclipse occurs when the **eclipse is total from some locations on Earth and annular from others,** due to the viewer's position relative to the Moon's shadow.
    ● It means that for some observers, the **Moon appears to fully cover the Sun, resulting in a total solar eclipse**, while for others, the Moon only **partially covers the Sun, resulting in an annular solar eclipse.**

SOLAR ECLIPSE

Things to know about this astronomical event

TYPES OF SOLAR ECLIPSE

TOTAL
The Moon completely blocks off the Sun's rays and casts a shadow over the Earth

ANNULAR
The Moon covers the Sun fully but due to its relatively small size the outer ring of the Sun is completely visible from Earth. This is also known as the Ring of Fire

PARTIAL
The Moon covers a part of the Sun and casts only the outer part of its shadow, the penumbra, on Earth

WHAT IS A SOLAR ECLIPSE?
During a Solar eclipse the Sun, Moon and Earth are in a straight line and the Moon comes between the Sun and Earth. This blocks the rays of the Sun from reaching the Earth causing a solar eclipse

FACT
A solar eclipse usually occurs around two weeks prior or after a lunar eclipse

Source: timeanddate. com, news reports

HYBRID: A rare form of solar eclipse which changes from an annular to a total solar eclipse, and vice versa, along its path. During a Hybrid Solar Eclipse you could see any of the three forms of eclipses, depending on exactly where you stand

Note:

Twitter's Hateful Conduct Policy and Deadnaming

Why in News?

Twitter recently changed its hateful conduct policy that **once prohibited misgendering and deadnaming of** transgender **individuals on its platform.**

➢ This has sparked controversy among many who believe that the social media **platform's safety standards for marginalized groups are being compromised** under the leadership of **Elon Musk.**

What are the Changes in the Twitter's Policy?

➢ The policy once read, "We prohibit targeting others with repeated slurs, tropes, or other content that intends to **dehumanize, degrade or reinforce negative or harmful stereotypes about a protected category**. This includes **targeted misgendering or deadnaming of transgender individuals"**.
  ❍ Twitter has removed this protection for transgenders.

➢ In addition to changing its "hateful conduct policy," Twitter has announced that it will **only put warning labels on some tweets** that might violate its rules against hateful conduct. Previously, tweets that **violated these rules were removed** from the platform entirely.
  ❍ This change could lead to an **increase in harmful content on the platform**, which could negatively impact the safety of marginalized groups.

➢ **Critic's Views:**
  ❍ Concerns about the safety of marginalized groups on Twitter have surfaced several times, with many critics arguing that the **platform has become less safe under the leadership of Elon Musk.**
  ❍ Critics believe that the platform can no longer protect users from **"trolling, state-coordinated disinformation, and child sexual exploitation".**

What is Deadnaming?

➢ Deadnaming is the **act of calling a trans, non-binary, and/or gender-expansive person by their birth name or the name they used before they adopted their chosen name.**
  ❍ This practice is harmful because it **invalidates a person's identity** and may reveal personal information that the person does not want to be disclosed.

➢ Deadnaming is harmful because refusing to use a person's chosen name or pronouns is a form of **transphobia or cis-sexism** which may result in harassment, discrimination, and assault, and **contributes to mental health conditions such as depression and suicidality.**
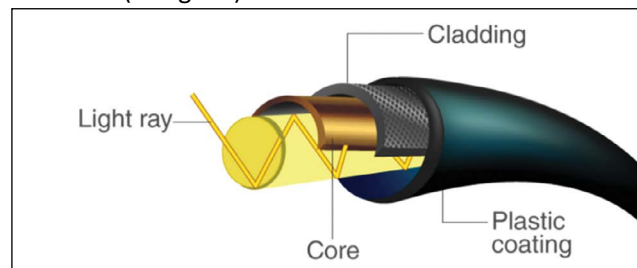
Digital Highways

Why in News?

The **National Highways Authority of India (NHAI)** has announced its plan to develop around **10,000 km of Optic Fibre Cable (OFC) infrastructure across** the country by the fiscal year 2025.

➢ NHAI's plan aligns with **United Nations' Sustainable Development Goals (SDGs) targets, which aim at providing access to safe, affordable, accessible, and sustainable transport systems for all by 2030.**

What is OFC?

➢ **About:**
  ❍ Fiber-optic cables are like tubes that hold tiny wires made of glass or plastic. They **use light to send information much faster than regular wires** that use electricity.
  ❍ Metal wires are preferred for transmission in optical fibre communication as signals travel with less damage.
    ● The optical fiber works on the principle of **total internal reflection (TIR).**
      ■ **TIR** is **the complete reflection of a ray of light** within a medium such as water or glass from the surrounding surfaces back into the medium.
  ❍ Light rays can be used to transmit a huge amount of data (In case of long straight wire without any bend).
    ● In case of a bend, the optical cables are designed such that they bend all the light rays inwards (using TIR).

- ➢ **Development of OFC Network:**
  - ❍ The OFC network will be developed by the **National Highways Logistics Management Limited (NHLML), a fully owned special purpose vehicle (SPV) of NHAI.**
  - ❍ It will implement the network of Digital Highways by developing integrated utility corridors along the National Highways to develop OFC infrastructure.
  - ❍ NHAI has identified around 1,367 km on Delhi-Mumbai Expressway and 512 km on Hyderabad-Bangalore Corridor as pilot routes for the Digital Highway development. Providing internet connectivity to remote locations across the country, the OFC network will help to expedite the rollout of new-age telecom technologies like 5G & 6G

What are Digital Highways?

- ➢ Digital Highways or Roads are digital platforms that offer shared public and private services. They **utilize data, technology, and connectivity to improve the Strategic Road Network (SRN) in terms of design, construction, operation, and usage**. This will result in safer travel, quicker deliveries, and better experiences for all.

What is National Highways Authority of India?

- ➢ **About:** NHAI was set up under **the NHAI Act, 1988.**
  - ❍ **Objective:** It has been entrusted with the **National Highways Development Project (NHDP),** along with other minor projects **for development, maintenance and management.**
  - ❍ NHDP is a project to upgrade, rehabilitate and widen major highways in India to a higher standard. The project was started in 1998.
    - ● **Vision:** To meet the nation's need for the provision and **maintenance of National Highways network to global standards** and to **meet user's expectations** in the most time bound and cost-effective manner and **promote economic wellbeing** and quality of life of the people.

Mangrove Pitta Bird

Why in News?

Recently, the first mangrove pitta bird census was conducted in two coastal districts of Odisha (Kendrapara and Jagatsingpur).

What is the Mangrove Pitta?

- ➢ **About:**
  - ❍ The Mangrove Pitta bird (*Pitta megarhyncha*) is a species of bird that can be found in a few pockets of eastern India, including Odisha's **Bhitarkanika** and **West Bengal's Sundarbans.**
  - ❍ The Mangrove Pitta bird is a **ground forager** (an animal that searches widely for food) and **tree rester** that primarily inhabits **coastal mangrove forests in India.**
- ➢ **IUCN Status:**
  - ❍ The **IUCN (International Union for Conservation of Nature)** has categorized and evaluated the species and has listed it as **"Near Threatened"**.
- ➢ **Distribution**:
  - ❍ India, Bangladesh, Myanmar, Thailand, Malaysia, Singapore, Indonesia.
- ➢ **Importance:**
  - ❍ This species is important because it is a **bio-indicator of the health of mangrove forests, which are crucial to maintaining ecological balance in coastal areas.**

What Was the First-Ever Census of Mangrove Pitta Birds?

- ➢ This census was conducted **using a point count method,** where direct sightings and chirping sounds were used to count the birds.
- ➢ The census of Mangrove Pitta birds found that a **total of 179 individual birds were counted.**
- ➢ The highest concentration of these birds was found in the mangroves near the Mahipura river mouth inside the **Bhitarkanika National Park.**

Regulating Online Money Gaming

Why in News?

The Ministry of Electronics and Information Technology (MeitY) has released an amendment to the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**, to regulate online real money games.

What are Online Real Money Games?

➢ Real money in the hopes of **winning more money.** These games can include casino-style games such as poker, blackjack, and slot machines, as well as **sports betting, fantasy sports,** and other types of online gaming that involve the exchange of money.

➢ In India, these types of games have become increasingly popular, leading to concerns about their regulation and potential negative effects on users, **such as addiction and financial losses.**

What are the New Rules?

➢ **No Promotion of Betting Platforms:**
  ❍ The rules have advised media entities, media platforms and online advertisement intermediaries **to refrain from carrying advertisements/ promotional content** of betting platforms.
    ● **Betting and gambling are illegal activities** and hence advertisements/ promotion of such activities directly or indirectly on any of the media platforms fall foul of the regulations.
    ● Promotion by a specific betting platform that encouraged the audience to watch a sports league on its website in prima facie **violation of the Copyright Act 1957.**

➢ **Self-Regulatory Body:**
  ❍ As per the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2023**, real money gaming platforms will have to register with a **Self-Regulatory Body (SRB)** that will determine whether or not the **game is "permissible."**
  ❍ Three SRBs will be recognized soon.
  ❍ If these games are not deemed "permissible," they will not get the protection of the amendment, and states may be able to take action against them for being betting or gambling platforms.
  ❍ As such, games that are **deemed permissible will be allowed to operate legally,** even if they involve deposits against an expectation of winnings. Video games where money is not involved need not approach an SRB.

World Chagas Disease Day

Why in News?

The **World Health Organisation (WHO)** observes **World Chagas Disease Day** every **April 14th** to raise awareness about the little-known disease that affects millions of people, especially in Latin America.

➢ The **72nd World Health Assembly** dedicated this day to the disease in 2019.

➢ This year's theme is "**time to integrate Chagas disease into primary health care".**

What is Chagas Disease?

➢ **About**:
  ❍ Chagas disease, also known as **"silent or silenced disease",** is a **communicable parasitic disease** that infects 6-7 million people and claims around **12,000 lives every year worldwide**, according to WHO.
    ● The **disease is named after physician Carlos Chagas** who first detected it in a Brazilian child in 1909.

➢ **Causes:**
  ❍ It is caused by the **protozoan Trypanosoma cruzi,** transmitted by a family of bugs called **'triatomines'** or **'kissing bugs'** that infect healthy individuals through bites or defecation.
  ❍ It can also be contracted through **congenital transmission, blood transfusions, organ transplantation, consumption of uncooked food** contaminated with **fecal matter of infected bugs,** or accidental laboratory exposure.
    ● It **cannot propagate by casual contact** with infected humans or animals.

➢ **Symptoms**:
  ❍ The disease **manifests as fever, headaches, rashes, inflammatory nodules, nausea or diarrhea, a**nd muscle or abdominal pain. 4

Note:

- **70-80% of patients show no symptoms** throughout their lives, making early detection challenging.
  - **20-30% of infections** evolve into the chronic stage, causing **damage to the heart, digestive system, or nervous system.**

➢ **Prevalence**:
  - Chagas is currently endemic in **21 countries in the Americas**, with an annual average incidence of 30,000 new cases, according to the **Pan-American Health Organization.**
    - Rare cases have been reported in the **southern United States** as well as **many European,** **Eastern Mediterranean**, and **Western Pacific countries.**

➢ **Treatment and Prevention:**
  - There are **currently no vaccines available for Chagas disease,** but **antiparasitic medicines Benznidazole and Nifurtimox** can treat the disease. They have a **100% efficacy rate if administered at the onset** of the acute stage.
  - Preventive measures have been put in place by countries to eliminate the bugs or reduce infections.
    - **Universal screening of blood donors and blood products** is done by all Latin American countries and other countries reporting new cases.

■■■

Note:

Rapid Fire Current Affairs

Highlights

- SUPREME Initiative
- Pushkaralu Festival
- Monthly Economic Review
- India-Hungary Joint Working Group on Water Management
- Northeast Gas Grid Project
- Zero Shadow Day
- Ramanujacharya
- Jagadguru Adi Shankaracharya
- India's First Water Metro
- National Generic Document Registration System
- Farmer Producer Companies
- Doctrine of the Basic Structure Turns 50
- The Black Sea Grain Deal
- Earth Day
- National Panchayati Raj Day
- Space Seeds for Food Security
- Ladakh Autonomous Hill Development Council
- Global Unicorn Index
- Exercise INIOCHOS-23
- India's 100 Food Streets Initiative
- Civil Services Day
- MEF Leaders Discuss Climate Action and Initiatives
- Heat Index
- Coalition to Combat Marine Litter in India's Coastal Cities
- India's Milk Prices and Production
- Maa Kamakhya Corridor
- SATHI Portal
- US Oil and Gas Fields Emit 70% More Methane Than Reported
- India Steel 2023
- Blastomycosis
- Declining Tiger Population in Sundarbans
- Telecom Regulatory Authority of India (TRAI)
- Global Conference on Compressed Biogas (CBG)
- New Species Cascade Frog -Amolops Siju
- James Webb telescope Spots Compact Galaxy
- Uttaramerur Inscription

SUPREME Initiative

Recently, **the Ministry of Science and Technology launched the Support for Up-gradation Preventive Repair and Maintenance of Equipment** (SUPREME) initiative.

It is a **first-of-its-kind programme** by the government, that **extends financial support** for repair, upgradation, maintenance, retrofitting, or acquiring additional attachments **to increase the functional capabilities of existing Analytical Instrumentation Facilities (AIFs)**. Such facilities at institutions **recognised by the University Grants Commission (UGC) are eligible to apply for grants under SUPREME**.

AIFs **are to provide facilities of sophisticated analytical instruments to scientists and other users from academic institutes**, R&D laboratories and industries to enable them to carry out measurements for R&D work.

Makkalai Thedi Mayor

Chennai's Mayor has announced that she will begin a new initiative called **'Makkalai Thedi Mayor'**. The scheme is designed to **address civic issues across the 15 zones in Chennai** in a more **streamlined and efficient manner**, with the **mayor visiting each zone every 15 days to receive petitions from residents.** The first meeting will take place in Royapuram, and residents of all the wards in the area are encouraged to submit their concerns, such as issues relating to roads, stormwater drains, streetlights, toilets, birth and death certificates, property tax, professional tax, garbage clearance, removal of encroachments, parks, and playgrounds.

The Inaugural Session Y20 Pre-Summit

The inaugural session of the Y20 Pre-Summit was held in Leh and was inaugurated by the Lieutenant Governor of **Leh-Ladakh**. The session discussed various topics such as health and wellbeing, climate change and

Note:

disaster risk reduction, and youth in democracy and governance. The theme of the session was **'Youth-led Resilient Recovery'** and the event had **participants from G20 countries.** The session emphasized the **role of youth in bringing about sustainable development** and in tackling global issues such as **climate change.** The event also showcased the rich culture, traditions, and scenic beauty of Ladakh**.** Handicrafts and handlooms by SHGs comprised of Ladakhi women highlighted **pashmina wool, wood carving, and apricots** as a part of the **horticulture heritage of Ladakh.**

Y20 is the official youth engagement **group for the G20,** which **brings together young leaders worldwide to discuss and recommend policy solutions to global challenges**. India is hosting the Y20 summit for the first time, with a focus on **global youth leadership** and **partnership.** In the lead-up to the final summit, there will be **pre-summits and discussions at universities across the country.**

India to host G20 Summit in 2023

Pushkaralu Festival

The **12-day Pushkaralu festival is being celebrated in Varanasi**. This Pushkaralu festival is Ganga Pushkaram.

The festival is **known as** Pushkaralu (in Telugu), Pushkara or Pushkar. It is a festival that **comes every 12 years** due to a special combination of planetary transits.

According to astrology, **every river is associated with a zodiac sign** and the festival starts **when Jupiter moves from one zodiac to another**.

Pushkaralu is **considered to be one of the most sacred periods when devotees visit different holy rivers** to take a holy dip. **The twelve most significant rivers that flow in India are** **Ganga, Narmada**, Saraswati, **Yamuna**, **Godavari, Krishna, Kaveri**, Bhima, Pushkar, Tungabhadra, Sindhi and Pranahita.

Pushkaralu Festival

Monthly Economic Review

When reviewing the Indian economy's risks in the monthly economic review **which is released by the Ministry of Finance**, it was recommended that **there is a need to be vigilant against potential risks** such as geopolitical developments, global financial stability, and **drought** conditions caused by **El Nino**, **which lower**

agricultural output and elevate prices. According to the report, **elevated inflation and financial tightening will weigh on economic growth through 2025**. As per the IMF, **global growth is set to decline from 3.4% in 2022 to 2.8% in 2023**.

India's inflation trajectory, however, may **get influenced by the volatile international crude oil market**. **Crude oil markets** remain volatile, as **OPEC+ countries decide to cut output from May 2023**. This has already **led to a spike in crude oil prices.**

In addition, **constrained supplies of milk and wheat are also expected to impact the inflation trajectory**. Milk production has been impacted by a **Lumpy Skin Disease (LSD)**.

Prospect of Indian Economy in 2023

India-Hungary Joint Working Group on Water Management

The first meeting of the **India-Hungary Joint Working Group for water management** cooperation was held in New Delhi where both countries discussed challenges and initiatives in the **water sector.** The focus was on the **issue of groundwater over-exploitation** and the need for **proper water management practices in India.** Six areas of priority for cooperation were identified, including management of extreme phenomena, exploration and management of groundwater, and mitigation of climate change's impact on water resources. A three-year working program was signed to guide future cooperation.

Note:

Hungary and India have signed a **Memorandum of Understanding (MoU) to strengthen their technological, scientific, and management capabilities in water management**. The two countries will cooperate in integrated **water resources management, water and wastewater management,** and **water-related education, research and development**. A field visit was organized for Hungarian experts to showcase successful interventions under the **National Mission for Clean Ganga**.

One Earth One Health - Advantage Healthcare India 2023 Meet

The Prime Minister inaugurated the **6th Edition of One Earth One Health – Advantage Healthcare India 2023** meet and expressed India's commitment to making healthcare **accessible and affordable not only for its citizens but for the whole world**. The need for an integrated, inclusive, and institutional global response to healthcare challenges was discussed and **India's traditional healthcare systems** that holds many answers to **stress, and lifestyle diseases** was highlighted. The two-day conclave, attended by Health Ministers of several countries and other stakeholders from public and private sectors, aims to **promote global collaborations and partnerships for achieving Universal Health Coverage through value-based healthcare.** The event also aims to **showcase India's strength in medical value** travel as an **exporter of healthcare workforce providing value-based healthcare services** and its emergence as a **major hub for world-class healthcare and wellness services**.

Overview of Indian Healthcare Sector

Northeast Gas Grid Project

The Prime Minister has praised the **Northeast Gas Grid project** for achieving a major milestone. The project has constructed a **24-inch diameter natural gas pipeline using the Horizontal Directional Drilling (HDD)** method to go under the **Brahmaputra River**. The Ministry of Petroleum and Natural Gas has shared that this achievement has set a **record for the longest hydrocarbon pipeline river crossing in Asia** and the **second-longest in the world.**

The Northeast Gas Grid project aims to provide **clean and affordable energy** to the **Northeastern states of India** and is a significant step towards achieving the country's goal of reducing dependence on non-renewable energy sources. The project is part of the government's vision to increase the share of natural gas in India's energy mix and develop the **National Gas Grid.**

The Big Picture : One Nation, One Gas Grid

Zero Shadow Day

Bengaluru experienced a unique phenomenon called **Zero Shadow Day on 25th April 2023**. At precisely 12:17 pm, **vertical objects such as buildings and trees appeared to have no shadows**. This occurred because the **sun was directly overhead, at its zenith, causing the shadow to be directly beneath the object.**

This **event happens twice a year** at every point on Earth between the **Tropic of Cancer and the Tropic of Capricorn.** The next Zero Shadow Day for Bengaluru is on 18th August 2023. Locations outside of the tropics do not experience this phenomenon. This occurrence happens because the **sun's rays fall directly perpendicular to the surface,** creating a **subsolar point**. The subsolar point changes location as the **earth rotates around the sun,** and the **tilt of the earth's axis causes the changing seasons**. Zero Shadow Day is an important event as it helps to measure the earth's axial tilt, which is responsible for the changing seasons.
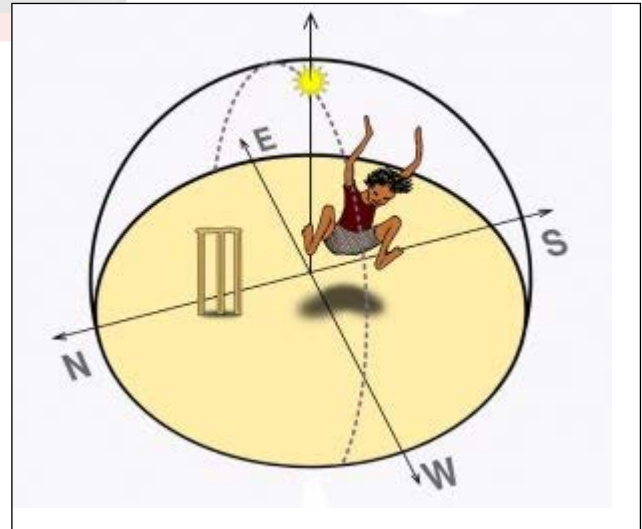
Insights into Mars' Core and Potential Habitability

A new study has revealed that **Mars'** core is **smaller and denser than previously believed,** with a radius estimated to be between **1,780-1,810 kilometres**. The team of international researchers used seismic data from **NASA's InSight Mars Lander** to analyse seismic waves

Note:

that pass through different materials in Mars' interiors. They found that the **core is likely in a liquid state**, and is composed of **mostly iron with light elements, including sulphur and oxygen,** which comprise a **fifth of its weight**. The study also highlighted that the core's physical properties could inform better models of how Earth and Mars formed.

Planetary cores are important because they can sometimes generate a **planet-wide magnetic field, which Mars' core does not do**. Earth's magnetic field is generated in its **outer liquid core, and it protects the planet from solar winds,** allowing it to **keep water.** However, Mars' core does not generate this protective shield, making the planet's surface **conditions hostile to life.** Though Mars is believed to have possessed a **magnetic field in the past and was once habitable,** the planet's interiors played a key role in its evolution to its current state. Even though the InSight mission has been retired, researchers are still analysing the gathered data to better understand the Red Planet's composition and properties.

Red Planet Day, NASA's InSight Mars Lander

Ramanujacharya

Recently, the Prime Minister has paid tributes to Sri Ramanujacharya on his Jayanti. Ramanujacharya, born in 1017 in Sriperumbudur in Tamil Nadu, is widely respected as a **Vedic philosopher and social reformer.** He is renowned for advocating **social equality and justice,** which was revolutionary for his time, and for his propagation of the **Bhakti movement,** which inspired other Bhakti schools of thought. He was instrumental in reviving the **Vishishtadvaita subschool of Vedanta philosophy,** which posits **non-dualism of the qualified whole**. Ramanujacharya wrote nine scriptures known as the **navaratnas** and composed numerous commentaries on Vedic scriptures, including the **Vedanta Sutras and the Bhagavad-Gita.** His teachings emphasized the need for **harmony with nature and compassion, humility, equality, and mutual respect among all people**. He advocated the concept of **"vasudhaiva kutumbakam,"** which translates to **"all the universe is one family."**

Ramanujacharya embraced the socially marginalized and condemned them and asked royal **courts to treat them as equals.** He liberated millions from social, cultural, gender, educational, and economic discrimination with his belief that every human is equal regardless of nationality, gender, race, caste, or creed. Because of his work to promote social equality, the **213-feet tall statue of Ramanujacharya in Hyderabad is known as the Statue of Equality.**


Philosopher-saint Ramanujacharya

Jagadguru Adi Shankaracharya

Recently, the Prime Minister paid tributes to Jagadguru Adi Shankaracharya on his birth anniversary. **Jagadguru Adi Shankaracharya, born in the 8th century AD in Kerala**, is one of the most **revered philosophers** in Indian history. He is considered to be the founder of the **Advaita Vedanta school** of philosophy, which emphasizes the **ultimate unity and oneness of all existence.** Shankaracharya is credited with **reviving Hinduism and restoring its philosophical and spiritual foundation**. He was a prolific writer, composing commentaries on the Vedas, Upanishads, and other important texts. His most significant works include the commentary on the **Brahma Sutras (Bhashya), Bhajagovinda Stotra, Nirvana Shatakam, and Prakaran Granths.** Shankaracharya was also a **social reformer and worked to eliminate caste-based discrimination and promote social equality.**

Note:
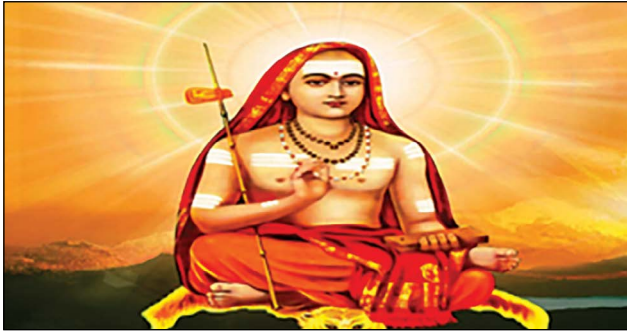
Adi Shankaracharya

India's First Water Metro

The Prime Minster has recently inaugurated the first phase of **Kochi Water Metro in Kerala – first-ever metro system of its kind.** It's a **public boat service** integrated with the metro rail network. The project is being **implemented by Kochi Metro Rail Corporation with the financial assistance provided by a German funding agency.**

The **main objective is to link ten island communities in Kerala's city with the mainland**, resulting in shorter travel times and more cost-effective transportation.

Moreover, Kochi Water Metro is a modern ferry transport project consisting of numerous boats running along 16 routes across Greater Kochi. Equipped with cutting-edge safety devices and advanced technology, the ferry ensures smoother commutes and more efficient travel experiences. **The boats in the Kochi Water Metro are powered by batteries** and require only 10 to 20 minutes to traverse each route.

Sea-Based Ballistic Missile Defense Interceptor

Defence Research and Development Organisation (DRDO) and **Indian Navy** successfully conducted a maiden flight trial of a **sea-based endo-atmospheric interceptor missile** off the coast of **Odisha in the Bay of Bengal**. The purpose of the trial was to **engage and neutralize a hostile ballistic missile threat,** which would elevate India to the elite club of nations having **Naval Ballistic Missile Defence (BMD)** capability. Prior to this, DRDO had successfully demonstrated a **land-based BMD system with the capability to neutralize ballistic missile threats from opponents.** With this successful test, India has achieved self-reliance in developing highly complex network-centric anti-ballistic missile systems, which marks a **significant step towards India's strategic defense capabilities**. This successful test also highlights India's commitment towards

ensuring **national security through indigenously developed technologies.**

Ballistic Missile Defence (BMD)

National Generic Document Registration System

The **Department of Land Resources (DoLR) (Ministry of Rural Development)** has reported that as many as **28 States/UTs in India have adopted the National Generic Document Registration System (NGDRS)** for land records. This system allows for **eRegistration in these States/UTs,** or they have started sharing data with the national portal of NGDRS through User Interface/API. Additionally, the **Unique Land Parcel Identification Number (ULPIN)** or **Bhu-Aadhar** has been adopted by 26 States/UTs. Furthermore, some States are using ULPIN in the SVAMITVA portal.

The DoLR is implementing the **Digital India Land Records Modernisation Programme (DILRMP)** with 100% funding from the Government of India.

Digital India Land Record Modernisation Programme

Farmer Producer Companies

ITC Limited, one of India's major private companies, has achieved an extraordinary feat by helping to form 78 **farmer-producer companies (FPCs)** also known as **Farmer Producer Organization**.

FPC is a company that is **owned and run by farmers**. It helps these farmers by **bringing together the crops they grow and selling them as a group, which makes it easier to get better prices for their products**. By working together, the farmers can also **save money on things like equipment and supplies** and share knowledge and expertise to improve their farming methods. This allows them to be more efficient and profitable as a group, instead of trying to compete with larger, more established businesses on their own.

In helping the formation of FPCs, ITC acted as a **Cluster-Based Business Organisation (CBBO),** a concept introduced in **Union Budget 2019-20** to provide hand-holding support to FPCs and to meet the target of creating **10,000 FPOs by 2024.** With the announcement of CBBOs, the formation of FPCs has seen a huge rise, from about 5,000 in 2018 to over 16,000 in 2023, as per data with the **Union Ministry of Corporate Affairs.**

Note:

Recent analysis finds that this increase has come at a cost – FPCs formed by big companies acting as CBBOs are **often unable to act independently in decision-making or be farmer-centric,** which **defeats the purpose of their creation**. The biggest challenge is that **CBBOs can squeeze the FPCs for margin**, which could result in **FPCs becoming a captive market for goods produced or marketed by its CBBO.** Furthermore, farmers argue that the **real purpose of CBBOs in helping FPCs is to get cheap raw material**. They believe that the purpose of FPCs was to help farmers, not big companies, get more money.

Farmer Producer Bodies Need Help

Doctrine of the Basic Structure Turns 50

The **doctrine of the basic structure** turns 50 this year** and is considered a landmark in India's constitutional history. The Doctrine of Basic Structure refers to a **constitutional principle** that was established by the **Constitutional Bench in the Kesavananda Bharati case of 1973**. The bench ruled that **Parliament could amend any part of the Constitution as long as it did not alter or amend the basic structure** or essential features of the Constitution. While the court did not define the term 'basic structure', it listed several principles that form its part. The basic structure doctrine has been interpreted to include the **supremacy of the Constitution, the rule of law, independence of the judiciary, the doctrine of separation of powers, sovereign democratic republic, the parliamentary system** of government, the **principle of free and fair elections**, **welfare state**, etc.

The significance of the basic structure doctrine lies in **limiting political power, the wise exercise of the judicial review process and power,** and the last word resting with the Supreme Court. Judicial independence is crucial for the **essence of the rule of law**, and respect for constitutional conventions and practices is vital to maintain the integrity of the Constitution. The application of the basic structure doctrine can be seen in the **SR Bommai case (1994),** where the Supreme Court upheld the **dismissal of BJP governments by the President, invoking a threat to secularism by these governments.**

50 Years of Kesavananda Bharati Judgment

The Black Sea Grain Deal

The **Group of Seven (G7)** agriculture ministers have issued an official statement calling for the **extension, full implementation, and expansion of the Black Sea Grain Initiative (BSGI) deal** that allows Ukraine to export over 27 million Tonnes of grain from its Black Sea ports.

The deal was **brokered by the United Nations and Turkey** in July 2022 but Russia, which invaded Ukraine in February 2022, has signaled that it will **not allow the deal to continue beyond 18th May 2023** because its demands to facilitate its own grain and fertilizer exports have not been met.

The G7 ministers strongly disapprove of Russia using food as a way to create problems and force Ukraine to do what they want. They promise to stand with Ukraine and help those who are most affected by Russia's use of food as a weapon. The G7 members have also pledged to provide support for the recovery and reconstruction of Ukraine, including expertise in demining agricultural land and reconstruction of agricultural infrastructure.

Black Sea Grain Initiative (BSGI)

Earth Day

Earth Day is **an annual event celebrated on 22nd April** to raise awareness about the need to protect our planet and its environment. In 2009, the **United Nations designated 22nd April** as **'International Mother Earth Day.** The **theme for Earth Day 2023 is "Invest in our planet,"** which calls on businesses, investors, financial markets, and governments to lead the way in building a healthier and more equitable global system. The private sector can use its power to promote green innovation and practices, while governments can incentivize citizens, businesses, and institutions to work toward environmental conservation. Individual citizens can also contribute by voting for politics that prioritize the environment and by supporting environmentally conscious businesses.

Earth Day was first observed in **1970 as a response to environmental degradation** caused by issues such as **smog, polluted rivers, and oil spills**. Today, Earth Day is globally coordinated by **EARTHDAY.ORG, a non-profit organization** formerly known as **Earth Day Network**. It aims to build the world's largest environmental movement to drive transformative change for people and the planet.

Note:

drishti

The **landmark Paris Agreement,** which aims to reduce global greenhouse emissions, **was signed on Earth Day 2016**, demonstrating the significance of this day in driving meaningful change for our planet.

Earth Day

National Panchayati Raj Day

National Panchayati Raj Day is **observed on 24th April every year** to commemorate the **73rd constitutional amendment** that came into effect on the same day in 1993, which **accorded panchayats a constitutional status as the third tier of local self-governance in India**.

Although some states such as Rajasthan, Andhra Pradesh and West Bengal had already recognized panchayats as local self-governance institutions, the **73rd and 74th amendments made this a pan-India phenomenon**.

Panchayati Raj has been far more successful in giving **women a fair share of representation**, with **one-third of total seats reserved for women at the local level,** and some states providing **50% reservations to women** in elections for the local bodies. This increased representation of women at the local level has various policy outcomes, including increased spending on community-based welfare for women and financial independence for women through self-help groups in many places.

There is significant variation in the degree of fiscal autonomy granted to local government bodies across states, with some having greater devolution of financial powers than others. For instance, **Kerala and Maharashtra are ranked as the best in terms of following devolution**, while **Odisha and Assam are ranked the lowest among major states**.

National Panchayati Raj Day, Panchayati Raj Institution (PRI)

Space Seeds for Food Security

The **International Atomic Energy Agency (IAEA)** and the **Food and Agriculture Organization (FAO) are accelerating research to develop climate-tolerant crops**.

Two varieties of seeds — **arabidopsis** (a plant of the cabbage family) and **sorghum** (jowar, cholam, or jonna), **sent to space in 2022 to make them climate-tolerant by exposing them to harsher surroundings** returned to the Earth in March 2023.

Scientists will **examine the possibilities of developing resilient crops that can help provide sufficient food amid a climate crisis**. They will **also examine the impacts of cosmic radiation** (consists of high-energy charged particles, x-rays and gamma rays produced in space) **on accelerating the natural genetic adaptation of much-needed crops**.

Increased radiation creates genetic changes that would help them withstand greater temperatures, arid soils, diseases and rising sea levels.

The research is significant as (according to UN estimates), **rising temperatures and weather disruptions have slashed global food production by almost 13% since 1961**. Global warming is making it difficult for farmers to sustain yields. The **rising costs for essential grains and political instability in various parts of the world ave been aggravating it**.
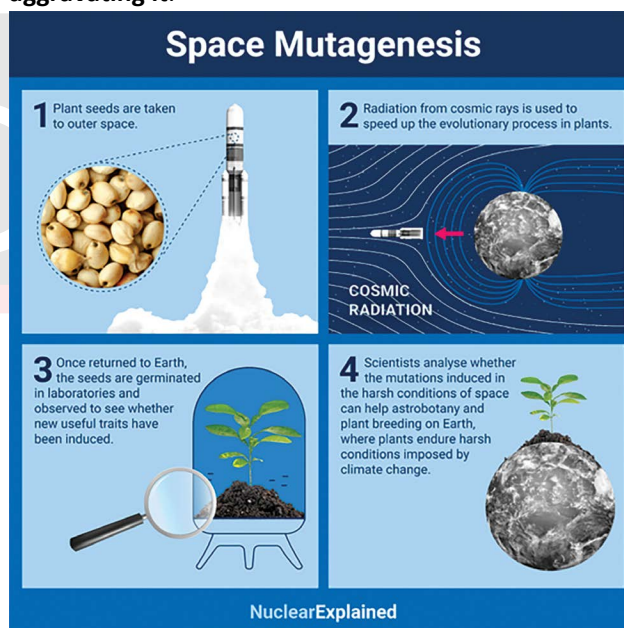
Climate Change and Food Insecurity

Ladakh Autonomous Hill Development Council

Recently, the Ladakh Autonomous Hill Development Council (LAHDC), Leh, unanimously passed a **resolution seeking a ban on entry of media houses and individuals to Leh who tried to "malign the image" of the Dalai Lama**.

Dalai Lama **is a title given by the Tibetan people for the foremost spiritual leader of the Gelug or "Yellow Hat"**

Note:

school of **Tibetan Buddhism**, the newest of the classical schools of Tibetan Buddhism. LAHDC is an **autonomous district council that administers the Leh district of Ladakh**. The council was **created under the Ladakh Autonomous Hill Development Council Act of 1995**.


Dalai Lama, Ladakh's Demand for Sixth Schedule

Global Unicorn Index

According to the **Global Unicorn Index 2023** by Hurun, Swiggy, Dream11 and BYJU'S are **India's top unicorns**.

A **unicorn is any privately owned firm with a market capitalization of more than USD 1 billion**. It denotes new entities **dedicated to offering creative solutions and new business models**, among other things.

The report indicates that **India continues to be the world's third-largest country with the highest number of unicorns**, following the US and China. However, **India ranks fifth in the Hurun Global 500 companies**, which is a list of the most valuable non-state-controlled businesses globally.
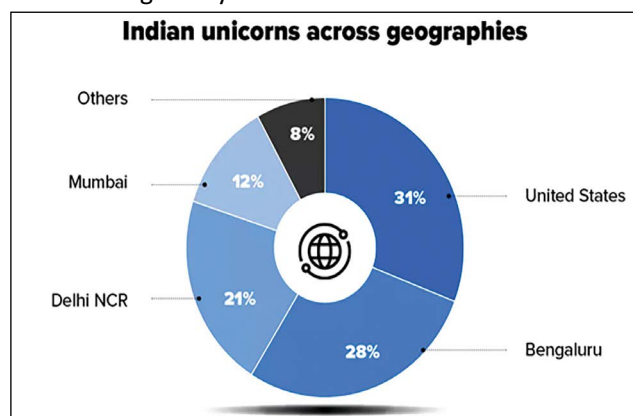
As per the report, **the number of Indian unicorns established outside of India is higher than those located within India**. India has a **total of 138 unicorns**.

The 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) which are **likely to become unicorns within three years**.

India's Startup Ecosystem

Exercise INIOCHOS-23

The Indian Air Force (IAF) will be participating in Exercise INIOCHOS-23, **a multi-national air exercise hosted by the Hellenic Air Force (Greece) from April 24 to May 4.** The IAF is **currently participating in exercise Cope India with the US**, as well as a multilateral **exercise Orion hosted by France**.

The IAF will be participating in INIOCHOS-23 with **four Su-30 MKI** and two **C-17 aircraft**. The **objective of the exercise is to enhance international cooperation, synergy and interoperability** among the participating Air Forces.

Indian Air Force

India's 100 Food Streets Initiative

The **Health Ministry of India,** in partnership with the **Ministry of Housing and Urban Affairs, (MoHUA)** has proposed the **development of 100 food streets in 100 districts across the country.** The initiative aims to **promote safe and healthy practices in the food industry, reduce food-borne illnesses,** and improve overall health outcomes. The project will be implemented as a pilot scheme to demonstrate best practices for food businesses. This initiative will not only support the **"eat right campaign"** and **food safety** but also enhance the **credibility of local food businesses**. The project's benefits include creating employment opportunities, improving tourism potential, and boosting the economy.

The initiative will be implemented through the **National Health Mission (NHM)** in convergence with the **MoHUA** and with technical support from the **Food Safety and Standards Authority of India (FSSAI)**. States and Union Territories will receive financial assistance of **₹1 crore per food street/district**, with assistance under the

Note:

NHM provided in the ratio of **60:40 or 90:10, subject to standard branding according to FSSAI guidelines**.

National Health Mission, Eat Right Campaign

Civil Services Day

The **Vice-President of India** addressed a gathering of civil servants at the **16th Civil Services Day (CVD) in New Delhi**, the **date 21st April is chosen to commemorate** the day when the first Home Minister of Independent India, **Sardar Vallabhbhai Patel addressed the probationers of Administrative Services Officers in 1947 at Metcalf House, Delhi and he referred the** Civil servants as the **'Steel Frame of India'.**

On this 16th CVD, the crucial role played by civil servants in ensuring the **inclusive development of** the nation was emphasized. Civil servants were called upon to facilitate **uniformity in administration across the Union and the States so that federalism could flourish into cooperative federalism.** Highlighted the **Mission Karamyogi,** a National Programme for **Civil Services Capacity Building,** which is shaping the **future-ready civil service aligned to the vision of New India.** The importance of technology in complementing the leadership of civil servants for accelerated service delivery and citizen-centric governance is recognized. The Vice-President unveiled an e-book on the **'National Good Governance Webinar Series'** and inaugurated an exhibition on **'Good Governance Practices in India- Awarded Initiatives'.**

Civil Services Day

MEF Leaders Discuss Climate Action and Initiatives

Recently, the virtual meeting of the **Major Economies Forum on Energy and Climate Change** was held, chaired by **US President** and attended by Heads of **State and Ministers from 20 major economies worldwide**. The **International Energy Agency ,** stressed the urgency for **climate action to limit global temperature rise** and mentioned Indian Prime Minister's **call for LiFE, a lifestyle for the environment.** All MEF leaders recognized climate change as one of the biggest challenges and voiced the need for joint efforts to upscale climate action.

Indian Minister of Environment, Forest & Climate Change, and Labour & Employment emphasized **India's leadership in combating climate change, with per capita**

emissions one-third of the global average. India's initiatives to reduce greenhouse gas emissions from various sectors, support for climate finance, and the **importance of LiFE in individual behavior change towards combating climate change** are highlighted. The meeting also discussed efforts to strengthen the financial capacity of **Multilateral Development Banks (MDB)** to address global challenges, including poverty reduction and **SDG**s.

LiFE

Heat Index

The **heat index,** which takes into account both air **temperature and humidity, is an important indicator of the perceived heat that people experience**. In Delhi, the **heat index in April 2022 reached dangerous levels, ranging from 44°C to 49°C.** The recorded heat index figures in Delhi are in the **"danger" category of the US National Weather Service classification**, which points to the likelihood of **heat cramps, heat exhaustion, and possible heat stroke in case of continued activity.** The **concentration of the slum population, lack of access to amenities, poor housing conditions, and non-availability of healthcare and health insurance,** can aggravate the heat-related vulnerabilities in Delhi.

There is direct relationship between the air temperature and relative humidity and the heat index, meaning as the **air temperature and relative humidity increase (decrease),** the **heat index increases (decreases).**

Heat Index, Heatwaves

Coalition to Combat Marine Litter in India's Coastal Cities

The Centre for Science and Environment (CSE), a non-profit organization based in Delhi, has launched a **coalition of coastal cities to combat marine litter pollution across India.** The Coalition aims to **address the serious trans-boundary issue of marine litter pollution**, which is responsible for **damaging marine ecosystems and harming marine life.** About 80% of marine litter comes from **land-based mismanagement of solid waste** that reaches the ocean through various **land-to-sea pathways.** The coalition will **focus on tackling plastic pollution, which accounts for 90% of all the waste that ends up in the marine ecosystem.** India produces about 460 million Tonnes of plastic, of which nearly 8 million Tonnes (2.26%) is leaked into the marine ecosystem.

According to the CSE, **South Asian seas are particularly affected, with Tonnes of plastic waste leaked into them every day**, accounting for 5.6 million Tonnes of plastic waste per year. India's 7,517 km coastline across nine states and 66 coastal districts is home to about 250 million people and rich biodiversity. The CSE emphasized the need to enforce policies like the **single-use plastic ban** and extended producer responsibility stringently to manage the plastic waste on land that contributes to marine litter pollution.

Marine Pollution

India's Milk Prices and Production

Milk prices have been increasing since 2021 and have seen several hikes across brands, with the average price for a litre of milk in India reaching ₹57 in April 2023, 12% higher than the previous year. **Milk prices are the highest in Lucknow and Guwahati, while southern cities such as Bengaluru and Chennai have relatively lower milk prices**. The high inflation in milk has been identified as one of the reasons driving retail inflation, with milk inflation continuing to trend higher. Milk production in India has been facing stagnation due to several factors, including a **demand slump during the COVID-19 pandemic, outbreaks of lumpy skin disease affecting cattle and buffaloes resulting in lower milk yields, and high prices of fodder** raising the cost of production.

India is the largest producer of milk in the world, its milk production has slowed down in recent years, with the growth rate peaking at 6.6% in FY18. The possibility of importing dairy products to address the current situation, with the government considering options including the import of butter and ghee if the situation remains unchanged.

National Milk Day

Maa Kamakhya Corridor

The Prime Minister of India expressed his optimism that the **Maa Kamakhya corridor, just like the Kashi Vishwanath Dham (Uttar Pradesh's Varanasi) and Shree Mahakal Mahalok corridor (Ujjain, Madhya Pradesh), will become a significant landmark initiative**. Kashi Vishwanath Dham and Shree Mahakal Mahalok, have enhanced the **spiritual experience for many and helped boost the local economy through increased tourism.**

The Maa Kamakhya corridor is a proposed infrastructure project that **aims to renovate and develop the pilgrimage site of Kamakhya Temple** in Guwahati, Assam. The **Maa Kamakhya temple, dedicated to the goddess of desire also known as Kameshwari**, is situated in the Nilachal mountain in Guwahati. **Among the 51 Shaktipeeths present on earth,** Maa Kamakhya Devalaya is considered the **oldest and the most sacred**. It is the **center of the Tantric Shaktism cult,** which has a significant following in India.

Kashi Vishwanath Dham , Shree Mahakal Mahalok corridor,

SATHI Portal

The Agriculture and Farmers Welfare Minister of India has launched the **SATHI (Seed Traceability, Authentication and Holistic Inventory) Portal and Mobile App** to address the **challenges in seed production, quality seed identification, and seed certification.** The system has been developed by the **National Informatics Centre (NIC)** in collaboration with MoA & FW with the theme of **'Uttam Beej – Samriddh Kisan'.**

The SATHI portal is a significant step to address the challenges in the agriculture sector and will prove to be a revolutionary step in agriculture when it is used at the grassroots level. This portal will **ensure the quality assurance system, identify the source of seed in the seed production chain, and trace the seeds through a QR code**. The system will have integrated **seven verticals of the seed chain** - **Research Organization, Seed Certification, Seed Licensing, Seed Catalogue, Dealer to Farmer Sales, Farmer Registration, and Seed DBT.** Only seeds with valid certification can be sold by valid licensed dealers to centrally registered farmers, who will receive subsidy through **DBT directly into their pre-validated bank accounts.**

Tea Mosquito Bug

Tea production in India is under threat due to the **infestation of the Tea Mosquito Bug (TMB)**. The **Tea Mosquito Bug (*Helopeltis theivora*) is a common pest that sucks the sap from the tender parts of tea plants**, leading to heavy crop losses. **It also damages the plants by inserting eggs into their tissues**. TMB has affected both **low and high-elevation tea plantations.** The **United Planters Association of Southern India (UPASI)** has raised concerns over heavy crop losses in all the tea districts of

Note:

South India due to the rapid spread of the bug. The **Tea Board of India** removed several pesticides from its approved list of Plant Protection Code (PPC) to make Indian teas free from harmful pesticides. Currently, only seven pesticides are approved for use in **South India under the PPC,** and tea growers are unable to achieve effective control of the pest. The UPASI has sought government approval to use effective molecules that have been evaluated and approved by the **Central Insecticide Board & Registration Committee(CIBRC)** for other crops in India and have minimum residue levels for tea.

The **CIBRC was established by the Ministry of Agriculture in 1970 to regulate insecticides under the Insecticides Act, 1968 and Insecticides Rules, 1971.** The **CIB advises the government on technical matters and has other assigned functions. Insecticide importers and manufacturers need to register with the Registration Committee.**

Tea Industry of India

US Oil and Gas Fields Emit 70% More Methane Than Reported

According to a recent study published in The Proceedings of the National Academy of Sciences, **methane emissions from US oil and gas fields were 70% higher than the official figures reported by the US Environmental Protection Agency (EPA)** from 2010-2019. The study estimates that **14.8 tera-grams of methane were released annually during this period.** The researchers found that the **EPA did not account for "super-emitters" - equipment that emits large amounts of methane, due to poor operational practices or malfunctioning**.

Methane is the **primary component of natural gas and a byproduct of fossil fuel exploration.** It is 86 **times more efficient at trapping heat over a 20-year-period than carbon dioxide**. It is released from a range of sources, including wetlands, agriculture (livestock, rice), waste (landfills, wastewater), and fossil fuel drilling (coal, oil, gas). The **International Energy Agency estimates that over 70% of emissions from oil and gas operations can be reduced**. The study also found that methane intensity decreased despite increased oil and gas production from 2017-2019. However, sustaining this decline **could be challenging as oil and gas fields mature and wells become less productive.**

Methane Emissions

India Steel 2023

The **Union Ministry of Steel, in collaboration with the Department of Commerce, Union Ministry of Commerce and Industry,** and **FICCI (Federation of Indian Chambers of Commerce and Industry)**, is organizing **India Steel 2023, a conference and exhibition on the steel industry.** The conference will cover topics such as **logistics infrastructure, demand dynamics, green steel production, and technology solutions for enhancing productivity and efficiency.**

India is a significant player in the global steel industry, **being the world's second-largest producer of crude steel**. In the financial year 2021-2022, the country produced 120 million tonnes of crude steel. **The states of Odisha, Jharkhand, West Bengal, Chhattisgarh, and the northern regions of Andhra Pradesh hold more than 80% of India's steel reserves.** Some of the important steel-producing centers in the country are **Bhilai, Durgapur, Burnpur, Jamshedpur, Rourkela, and Bokaro**. In terms of consumption, **India is the second-largest consumer of finished steel in 2021, with a consumption of 106.23 million tonnes. China is the largest steel consumer globally, followed by India**.

Green Steel

Blastomycosis

Blastomycosis is a rare fungal infection caused by the Blastomyces fungus that is found in the midwestern, south-central, and southeastern states of the US. The fungus is **typically present in moist soil and decomposing wood and leaves**. The fungus is **endemic** to Michigan state, US.

The disease is contracted by inhaling the spores of the fungus, which can be dispersed in the air if the soil is disturbed. **Symptoms of blastomycosis** include **fever, cough, breathing difficulty, and muscle aches, with severe infections potentially spreading to other organs such as the skin, bones, and brain.** While antifungal medications are available for treating the disease, the course of treatment can be long-lasting, **lasting between six months and a year.**

Fungal Infection - Mucormycosis

Note:

Declining Tiger Population in Sundarbans

The **Sundarbans,** home to the largest mangrove forest in the world and one of the last strongholds of the Bengal tiger, has **slipped in its ranking among India's tiger reserves.**

Despite a rise in its tiger population, the **Sundarbans has been ranked 31st among the 51 tiger reserves in the country for forest management,** according to the recently released **Management Effectiveness Evaluation (MEE) report.** Lack of adequate manpower and the vulnerability of the location to climate change and **submergence from sea level rise has been identified as the major challenges.** However, the Sundarbans have been doing well in containing major problems like poaching and tiger-human conflict.

Periyar in Kerala was the top-ranked tiger reserve with a score of 94.38%, followed by **Satpura** in Madhya Pradesh with 93.16% in the MEE report. The MEE report suggested that area development committees need to become functional under divisional commissioners to monitor illegal tourism, and **more management coordination is required between India and Bangladesh Sundarbans forest areas.**

Sundarbans, including the forest covering both the present tiger reserve and South 24 Parganas district, have been under **increasing climate change impacts, and it is important to carry out the related assessment.**

Sundarbans, Tiger Census 2022

Telecom Regulatory Authority of India (TRAI)

The Telecom Regulatory Authority of India (TRAI) has released a Consultation Paper on **"Issues Related to Low Power Small Range FM Radio Broadcasting"**. It seeks to **gather feedback and comments** from stakeholders on the need and timing for the **introduction of a new service provider for the drive-in theatre application,** as well as on **issues related to low-power short-range FM radio broadcasting**.

Such broadcasting is considered an effective method of sound broadcasting for services intended for limited locations and reception areas, such as hospital radio services, amusement parks, business premises, closed communities, small habitations, and local events.

TRAI **regulates telecom services** including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.

Telecom Regulatory Authority of India (TRAI)

Global Conference on Compressed Biogas (CBG)

Recently, the **Indian Federation of Green Energy (IFGE) organized a Global Conference on Compressed Biogas (CBG),** in which the **importance of domestic production of biofuels** was highlighted**.**

This is seen as a key strategy in reducing the import of fossil fuels and ultimately achieving the **goal of net zero emissions**. CBG production offers several benefits, including the **reduction of natural gas imports, GHG emissions, agricultural residue burning, providing remunerative income to farmers, employment generation, and effective waste management.** Additionally, the byproduct of CBG manufacturing, **Fermented Organic Manure (FOM), may be applied in the agricultural sector** to encourage organic farming and **lower the usage of artificial fertilizers.**

India has set a **target to increase the share of gas in the energy mix to 15% in 2030,** and the speedy expansion of CBG will help in meeting the additional requirement from domestic resources. The **Sustainable Alternative Towards Affordable Transportation (SATAT) Scheme,** which explores various waste streams as feedstock for CBG production, was highlighted in the conference. India aims to set up 5,000 commercial CBG plants by 2024-25 and produce 15 MMT of CBG.

The government is focused on developing a conducive ecosystem to promote sustainability for all actors of the **Triple Bottom Line (environment, society, and economy)**, and the recently announced **Amrit Kaal Budget 2023**

Note:

provides a significant boost to India's Biogas and clean energy revolution.

Compressed Biogas (CBG)

New Species Cascade Frog -Amolops Siju

Researchers from the **Zoological Survey of India (ZSI)** have discovered a new species of frog, which they **named Amolops Siju**, from the Siju cave in the South Garo Hills district of Meghalaya. **The Amolops Siju belongs to the largest group of ranid frogs**, with over 70 known species distributed across northeast and north India, Nepal, Bhutan, China, and the Malaya Peninsula.

The discovery of a new species of frog from a cave is very rare, and it is the **fourth new species of a cascade frog (Amolops).** Cascade Frogs are named so because of their preference for small waterfalls or cascades in flowing hill streams.

NCLT Grants 90 days Extension for Future Retail Ltd. (FRL)

Future Retail Ltd. (FRL) has been granted an extension of 90 days by the National Company Law Tribunal (NCLT) to conclude its **Corporate Insolvency Resolution Process (CIRP)**. The CIRP was initiated against FRL by NCLT in July 2022 after the company defaulted on its loans. As per Section 12(1) of the **Insolvency and Bankruptcy Code (IBC),** the resolution process **should be completed within 330 days**, which includes time taken for litigation. **Within 180 days of initiation**, the CIRP must be completed, but **NCLT may grant a one-time extension of 90 days.** The maximum time for completing the CIRP, including extensions and litigation, is 330 days

NCLT was constituted under **the Companies Act, 2013 w.e.f. 01st June 2016** based on the **recommendation of the Justice Eradi committee** on the law relating to

insolvency and winding up of companies. NCLT is a **quasi-judicial body that adjudicates issues relating to Indian companies.** The **IBC** proposed **two tribunals to adjudicate insolvency** resolution cases- the **NCLT adjudicates cases for companies and limited liability partnerships** and the **Debt Recovery Tribunal which will adjudicate cases for individuals and partnership firms.**

Pre-Pack Insolvency Resolution Process, National Company Law Tribunal (NCLT)

James Webb telescope Spots Compact Galaxy

The **James Webb Space Telescope's latest discovery of a highly compact galaxy** formed shortly after the **Big Bang** is revolutionizing our understanding of the early universe. The galaxy, which existed around 13.3 billion years ago, is about **1,000 times smaller than the Milky Way but forms new stars at a rate comparable to our present-day galaxy**. This finding challenges the conventional understanding of galaxy formation in the early universe, indicating that the first galaxies may be very different from those that exist today, and our usual assumptions about galaxy properties may not apply in the early universe.

The galaxy's chemical composition also differs from present-day galaxies due to a **scarcity of heavier elements** at the time of its formation. Observing this galaxy was aided by **"Gravitational lensing"** phenomena. **Gravitational lensing is a phenomenon where a large group of galaxies creates a strong gravitational field that bends and magnifies the light coming from distant galaxies behind it.**

James Webb Space Telescope, Big Bang

Uttaramerur Inscription

Indian Prime Minister recently referred to the **Uttaramerur inscription in Kanchipuram, Tamil Nadu**, while discussing India's democratic history. The inscription, **dating back to the reign of Parantaka I (907-953 AD),** provides a detailed description of how the **village's self-governance functioned.** Historians and political leaders often cite the inscription as evidence of India's long history of democratic functioning. Uttaramerur, located in the present-day Kanchipuram district, is a small town **known for its historic temples built during Pallava and Chola rule**. The famous inscription

from Parantaka I's reign can be **found on the walls of the Vaikunda Perumal Temple.**

The inscription describes how the **local sabha, or village assembly, functioned.** It outlines **how members were selected, the qualifications required, and their roles and responsibilities,** including specialized committees tasked with different functions. The sabha was exclusively composed of **brahmans,** and the inscription detailed the **circumstances in which members could be removed**. The inscription also described the various committees within the sabha, their responsibilities, and their limitations. **These committee assignments lasted for 360 days, after which members had to retire.**

Sabha membership was restricted to a **tiny subsection of land-owning brahmans, and there were no true elections.** Rather, members were **chosen from an eligible pool of candidates through a draw of lots**. However, the inscription should be cited as a precedent for democratic functioning. The inscription is like a constitution. If the rule of law is an essential component of a democracy, the Uttaramerur inscription describes a system of government that follows just that.

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Key Points

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