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Polity and Governance

Highlights

- States to have NIA Office by 2024
- First Amendment to the Indian Constitution
- Office of Profit
- Lok Adalats
- Right to Privacy
- Mission DefSpace
- DefExpo-2022
- Use of Regional Language in Legal System
- 6th East Asia Summit Education Minister's Meeting
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- Swadesh Darshan Scheme 2.0
- Amendments to the IT Rules, 2021
- Roles and Powers of Governor

States to have NIA Office by 2024

Why in News?

Recently, Union Home Minister announced all states in the country **will have National Investigation Agency (NIA) offices by 2024 as a strategy to counter terrorism.**

- The Minister was **addressing a two-day 'Chintan Shivir' organised with the objective to prepare an action plan for the implementation of 'Vision 2047'** and 'Panch Pran' announced by India's Prime Minister during the Independence Day Speech.

What are the Highlights of the Address?

- **NATGRID:**
 - States have been **urged to utilise the National Intelligence Grid (NATGRID)** that was operational now.
 - **NATGRID brings datasets of 11 agencies on a common platform.**
- **Revamping Criminal Justice System:**
 - Parliament will soon be presented with amendments to the **Indian Penal Code (IPC)** and Code of Criminal Procedure (CrPC).
- **One Data One Entry:**

- In order to ensure border and coastal security, border **states should coordinate with Central agencies and security forces.**
- There was a **need for optimal and rational utilisation of internal security resources** to fight challenges before the nation.

➤ One Data One Entry:

- Following the principle of **"one data, one entry"**, the NIA had been entrusted to maintain a national **terror database**, the **Enforcement Directorate** a dataset on financial crimes and the **Narcotics Control Bureau (NCB)** on narco crimes.

➤ Amendments to FCRA:

- The amendments to the **Foreign Contribution Regulation Act (FCRA)** in 2020 successfully prevented the misuse of foreign funding and effective monitoring became possible.
- The FCRA was a mandatory requirement to receive foreign funds.

What are the Issues with the Law-and-Order Situation in India?

➤ General Administration:

- Various government agencies lack coordination.
- Poor enforcement of laws and general failure of administration

➤ Problems Related to Police:

Note:



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- Organisational, infrastructure, and environmental problems
- Unwarranted political interference
- Lack of empowerment of the cutting-edge functionaries
- Lack of modern technology/methods of investigation

➤ **Organisational Behaviour:**

- A lack of training
- Entrenched attitudes of arrogance, insensitivity and patronage

➤ **Ethical Issues:**

- Different levels of corruption, collusion, and extortion
- Insensitivity to human rights
- Absence of transparent recruitment and personnel policies

➤ **Issues related to Prosecution:**

- Public prosecutors do not attract the best talent
- Lack of coordination between the investigation and the prosecution agencies
- Mistrust of police in admitting evidence.

➤ **Problems Related to the Judicial Process:**

- A large number of cases are pending
- Low conviction rates

What are the Related Constitutional and Legal Provisions?

- **Law and order is a State subject under the Seventh Schedule**, the Constitution provided that the **Ministry of Home Affairs (MHA)** could intervene in matters concerning national security and the Ministry from time to time sent advisories to States.
- It is the primary **duty of the State Governments** to prevent, detect, register and investigate crime and prosecute the criminals.
- **Central Government, however, supplements** the efforts of the State Governments by providing them **financial assistance for modernization** of their Police Forces.
- Further, intelligence inputs are regularly shared by the **Central Security and Intelligence Agencies with the State Law Enforcement Agencies** to prevent crime and law and order related incidents.
- The **National Crime Records Bureau (NCRB)**, a nodal agency under the MHA, is engaged in the process of collecting, compiling and analysing the crime statistics with a view to help the States to evolve appropriate strategies for better prevention and control of crime.

- Further, the Bureau has established computerized systems at every District Crime Records Bureau (DCRB) and State Crime Records Bureau (SCRB), across the country, under a project viz., 'Crime Criminal Information system (CCIS)'.

What is the National Investigation Agency (NIA)?

➤ **About:**

- The NIA is the **Central Counter-Terrorism Law Enforcement Agency** of India mandated to **investigate all the offences** affecting the **sovereignty, security and integrity of India**. It includes:
 - Friendly relations with foreign states.
 - Against atomic and nuclear facilities.
 - Smuggling of arms, drugs and fake Indian currency and infiltration from across the borders.
 - The offences under the statutory laws enacted to implement international treaties, agreements, conventions and resolutions of the United Nations, its agencies and other international organisations.
- It was constituted under the **National Investigation Agency (NIA) Act, 2008**.
- The agency is empowered to deal with the investigation of terror related crimes across states without special permission from the states **under written proclamation from the Ministry of Home Affairs**.

➤ **Headquarters:** New Delhi

First Amendment to the Indian Constitution

Why in News?

The **Supreme Court (SC)** has agreed to examine a **PIL (Public Interest Litigation)** challenging changes made to the **right to freedom of speech and expression** by the first amendment to the Constitution in 1951.

- The court said there is a legal issue, which arises for consideration, and has sought the Center's views.

What are the Petitioner's Arguments?

➤ **Objectionable Insertions:**

- **Section 3(1) of the amending Act substituted original Clause (2) of Article 19** with a new Clause (2), which contained **two objectionable insertions**.

Note:

- Original Clause (2) of Article 19 was dealing with reasonable restrictions on the freedom of speech and expression guaranteed under Article 19(1)(a).
 - New Clause (2), contained “two objectionable insertions” allowing restrictions also “in the interest of public order” and “in relation to incitement to an offence”
- **Neglects National Security:**
- The amendment also neglects **national security** by dropping the expression ‘tends to overthrow the State’ which raises **grave concern in the context of the dangers posed to the concept of secular democratic republic** by **radicalism, terrorism** and religious fundamentalism.
- **These two Insertions Protect Sections:**
- **124A: Sedition**
 - **153A:** Promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony.
 - **295A:** Deliberate and malicious acts, intended to outrage religious feelings of any class by insulting its religion or religious beliefs)
 - **505:** Statements conducing to public mischief) of the Indian Penal Code from the vice of unconstitutionality.
- **Section 3 (1)(a)- 3 (2) Void:**
- The plea urged the **court to declare Section 3 (1) (a) and 3 (2) of the First Amendment “beyond the amending power of Parliament”** and void since the “same damage the basic or essential features of the Constitution and destroy its **basic structure**”.

What was the Constitution First Amendment Act, 1951?

- **About:**
- The First Amendment was passed in **1951 by the Provisional Parliament, members of who had just finished drafting the Constitution as part of the Constitutional Assembly.**
 - The First Amendment Act amended **articles 15, 19, 85, 87, 174, 176, 341, 342, 372 and 376.**
 - Provided for the saving of laws providing for the acquisition of estates, etc.

- Added **Ninth Schedule** to protect the land reforms and other laws included in it from the judicial review. After Article 31, Articles 31A and 31B were inserted.
- **Reason for Amendments:**
- The immediate reason for the amendments were a series of Supreme Court and High Court judgments that had struck down provisions of public safety laws, press related laws and criminal provisions that were deemed to be incompatible with the constitutional right to freedom of speech.
- **Implications:**
- Under the **provisions of Article 31**, laws placed in the Ninth Schedule **cannot be challenged in a court of law** on the ground that they violated the fundamental rights of citizens.
 - Article 31(A), has vested enormous power to the State with respect to the acquisition of **estates or taking over management of any property or corporation in public interest.** It sought to exclude such acquisitions or from the **scope of judicial review under Articles 14 and 19.**
 - The Ninth Schedule was widely misused. Ninth Schedule contains more than **250 legislations receiving protection under Ninth Schedule** from judicial scrutiny.

Office of Profit

Why in News?

Recently, **Jharkhand chief minister** who was an **accused of holding an office of profit**, pleaded to **government to make his crime public as well as grant him punishment** at the earliest.

What is the Concept of ‘Office of Profit’?

- Members of Parliament (MPs) and Members of Legislature (MLAs), as members of the legislature, **hold the government accountable for its work.**
- The essence of disqualification under the office of profit law is **if legislators hold an ‘office of profit’ under the government**, they might be susceptible to government influence, and may not discharge their constitutional mandate fairly.
- The intent is that **there should be no conflict between the duties and interests** of an elected member.

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- Hence, the office of profit law **simply seeks to enforce a basic feature of the Constitution**- the principle of separation of power between the legislature and the executive.

What Constitutes an 'Office of Profit'?

- **About:**
 - The law **does not clearly define what constitutes an office of profit** but the definition has evolved over the years with interpretations made in various court judgments.
 - An **office of profit has been interpreted to be a position** that brings to the office-holder some financial gain, or advantage, or benefit.
 - The amount of such profit is immaterial.
 - In 1964, the **Supreme Court** ruled that the test for determining whether a person holds an office of profit is the test of appointment.
- **Factors which are considered in this determination includes:**
 - Whether the government is the appointing authority
 - Whether the government has the power to terminate the appointment
 - Whether the government determines the remuneration
 - What is the source of remuneration
 - Power that comes with the position

What does the Constitution say about holding an 'Office of Profit'?

- Under **Article 102 (1) and Article 191 (1) of the Constitution**, an MP or an MLA (or an MLC) is **barred from holding any office of profit** under the central or state government.
 - The articles clarify that **"a person shall not be deemed to hold an office of profit** under the government of India or the government of any state by reason only that he is a minister".
- Provisions of Articles 102 and 191 also **protect a legislator occupying a government** position if the office in question has been made immune to disqualification by law.
- Parliament has also enacted the **Parliament (Prevention of Disqualification) Act, 1959**, which has been amended several times to expand the exempted list.

What are the Related Judgments of the Supreme Court?

- CM will be disqualified under **Section 9A of the Representation of Peoples' Act, 1951** in view of three judgments of the apex court.
 - Under that section, **a contract has to be made for the supply of goods** or the execution of any work undertaken by the government.
- A constitution bench of the Supreme Court in 1964 in the case of **CVK Rao vs Dentu Bhaskara Rao** has held that a mining lease does not amount to a contract of supply of goods.
- In 2001, a three-judge bench of the apex court in the case of **Kartar Singh Bhadana vs Hari Singh Nalwa & others** also made it clear that a mining lease does not amount to execution of a work undertaken by the government.
- Even if the **CM is disqualified by any authority**, he can challenge it in the **high court** and in that case and as per a Supreme Court order, the adjudication **has to be completed within four months**.
 - Under **Article 164 (4)**, one person can be a **minister for six months** without being a member.

Lok Adalats

Why in News?

Recently, the Chhattisgarh government had launched **Lok Adalat** in jails for the speedy disposal of cases for the prisoners of the state.

- These courts will be held every working Saturday and provide relief to undertrials, and in some cases convicted prisoners, by explaining their rights and legal options such as plea bargaining and settlement.

What is Lok Adalats?

- **About:**
 - The term **'Lok Adalat'** means **'People's Court'** and is based on Gandhian principles.
 - As per the **Supreme Court**, it is an old form of adjudicating system prevalent in ancient India and its validity has not been taken away even in the modern days too.
 - It is one of the components of the **Alternative Dispute Resolution (ADR) system** and delivers

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informal, cheap and expeditious justice to the common people.

- The first **Lok Adalat camp was organized in Gujarat in 1982** as a voluntary and conciliatory agency without any statutory backing for its decisions.
- In view of its growing popularity over time, it **was given statutory status under the Legal Services Authorities Act, 1987**. The Act makes the provisions relating to the organization and functioning of the Lok Adalats.

➤ **Organization:**

- The State/District Legal Services Authority or the Supreme Court/High Court/Taluk Legal Services Committee may organize Lok Adalats at such intervals and places and **for exercising such jurisdiction and for such areas as it thinks fit**.
- Every Lok Adalat organized for an area **shall consist of such number of serving or retired judicial officers and other persons of the area** as may be specified by the agency organizing.
 - Generally, a **Lok Adalat consists of a judicial officer as the chairman** and a lawyer (advocate) and a social worker as members.
- **National Legal Services Authority (NALSA)** along with other Legal Services Institutions conducts Lok Adalats.
 - NALSA was constituted under the **Legal Services Authorities Act, 1987** which came into force on **9th November 1995** to establish a nationwide uniform network for providing free and competent legal services to the weaker sections of the society.
- The Legal Services Authorities Act, 1987 was **amended in 2002 to provide for the establishment of the Permanent Lok Adalats** to deal with cases pertaining to the public utility services.

➤ **Jurisdiction:**

- A Lok Adalat shall have **jurisdiction to determine and to arrive at a compromise or settlement** between the parties to a dispute in respect of:
 - Any case pending before any court, or
 - Any matter which falls within the jurisdiction of any court and is not brought before such court.
- Any case pending before the court **can be referred to the Lok Adalat for settlement if:**
 - Parties agree to settle the dispute in the Lok Adalat or one of the parties applies for referral

of the case **to the Lok Adalat or court is satisfied that the matter can be solved** by a Lok Adalat.

- In the case of a pre-litigation dispute, the **matter can be referred to the Lok Adalat on receipt of an application from any one of the parties** to the dispute.

- Matters such as matrimonial/family disputes, criminal (compoundable offenses) cases, land acquisition cases, labor disputes, workmen's compensation cases, bank recovery cases, etc. **are being taken up in Lok Adalats**.

- However, the Lok Adalat shall have no jurisdiction in respect of any case or matter relating to an offense **not compoundable under any law**.

➤ **Powers:**

- The Lok Adalat shall have the same powers as are **vested in a Civil Court under the Code of Civil Procedure (1908)**.
- Further, a Lok Adalat shall have the **requisite powers to specify its own procedure for the determination of any dispute** coming before it.
- All proceedings before a Lok Adalat shall be deemed to be **judicial proceedings within the meaning of the Indian Penal Code (1860)** and every Lok Adalat shall be deemed to be a Civil Court for the purpose of the Code of Criminal Procedure (1973).
- An award of a Lok Adalat shall be deemed to be a decree of a Civil Court or an order of any other court.
- Every award made by a Lok Adalat shall be final and binding on all the parties to the dispute. No appeal shall lie to any court against the award of the Lok Adalat.

➤ **Benefits:**

- There is **no court fee and if court fee is already paid the amount will be refunded** if the dispute is settled at Lok Adalat.
- There is **procedural flexibility and speedy trial** of the disputes. There is no strict application of procedural laws while assessing the claim by Lok Adalat.
- The parties to the dispute **can directly interact with the judge** through their counsel which is not possible in regular courts of law.
- The award by the Lok Adalat is **binding on the parties and it has the status of a decree of a civil court and it is non-appealable**, which does not cause the delay in the settlement of disputes finally.

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Conclusion

- Lok Adalats can be functional at larger levels if people are willing and aware of its advantages. Further, more provisions and innovative utilisation is needed that could empower permanent lok adalats and are made supplementary form of litigation for people who cannot or should not resort to courts.

Right to Privacy

Why in News?

The Supreme Court rejects WhatsApp-Meta pleas against **Competition Commission of India (CCI)** probe into **privacy policy of 2021**.

- Both WhatsApp and Meta have argued that the anti-trust watchdog cannot investigate the privacy policy as it has been kept in abeyance until the introduction of the **revised data protection bill**.
- The CCI is an independent authority to consider any violation of the provisions of the Competition Act of 2002 and cannot be dissuaded from investigation and alleged violation of Competition Act, 2002.

What are Issues with the Privacy Policy of WhatsApp?

- The information that **WhatsApp automatically collects and will be sharing with Facebook** includes the mobile phone number, user activity, and other basic information of the WhatsApp account.
 - WhatsApp's privacy policy to share commercial user data with Facebook establishes that it is the **owner of the data rather than an intermediary**.
- The policy essentially **takes away the choice** users had until now to not share their data with other Facebook-owned and third-party apps.
- The Whatsapp policy contradicts the recommendations of the **Srikrishna Committee report**, which forms the basis of the Data Protection Bill 2019. For Example:
 - The principle of Data Localisation, which aims to put curbs on the transfer of personal data outside the country, may come in conflict with WhatsApp's privacy policy.

What was the Personal Data Protection Bill?

- The Personal Data Protection Bill, 2019 was introduced in **Lok Sabha** by the Minister of Electronics and Information Technology, on December 11, 2019.

- Commonly referred to as the "Privacy Bill", it intended to protect individual rights by regulating the collection, movement, and processing of data that is personal, or which can identify the individual.
- The govt withdrew the bill due to various concerns raised by technology giants and other issues raised by the common people.

What is Right to Privacy?

- Generally understood that privacy is synonymous with the right to be let alone.
- The Supreme Court described privacy and its importance in the landmark decision of **K.S. Puttaswamy v. Union of India** in 2017 that- **Right to Privacy is a fundamental and inalienable right** and attaches to the person covering all information about that person and the choices that he/ she makes.
- The right to privacy is protected as an intrinsic part of the right to life and personal liberty under **Article 21** and as a part of the freedoms guaranteed by Part III of the Constitution.
- **Restrictions (as stated in the Judgement):**
 - The right may be restricted only by state action that passes each of the three tests:
 - First, such state action must have a legislative mandate;
 - Second, it must be pursuing a legitimate state purpose; and
 - Third, it must be proportionate i.e., such state action- both in its nature and extent, must be necessary in a democratic society and the action ought to be the least intrusive of the available alternatives to accomplish the ends.

What are the Government Steps to Protect Privacy?

- **B N Srikrishna Committee:**
 - Government appointed a committee of experts on data protection under the chairmanship of Justice B N Srikrishna that submitted its report in July 2018.
- **Information Technology Act, 2000:**
 - The IT Act provides for safeguard against certain breaches in relation to data from computer systems. It contains provisions to prevent the unauthorized use of computers, computer systems and data stored therein.

Note:

What is the Competition Commission of India (CCI)?

➤ About:

- The CCI was established in March 2009 by the Government of India under the Competition Act, 2002 for the administration, implementation, and enforcement of the Act.
- It primarily pursues three issues of anti-competitive practices in the market:
 - Anti-competitive agreements.
 - Abuse of dominance.
 - Combinations.

➤ Objectives:

- Eliminate practices having adverse effects on competition.
- Promote and sustain competition.
- Protect the interests of consumers.
- Ensure freedom of trade in the markets of India.
- Establish a robust competitive environment through:
 - Proactive engagement with all stakeholders, including consumers, industry, government, and international jurisdictions.

➤ Composition:

- The Commission consists of one Chairperson and six Members who shall be appointed by the Central Government.
 - The commission is a **quasi-judicial body** which gives opinions to statutory authorities and also deals with other cases.
 - The Chairperson and other Members shall be whole-time Members.

Mission DefSpace

Why in News?

Recently, the Prime Minister has launched 'Mission DefSpace' at the ongoing **DefExpo**.

- He also released the **fourth Defence Indigenisation List which bans import of 101 items** after certain timelines.
- He also unveiled the **HTT-40** (Hindustan Turbo Trainer-40) **indigenous trainer aircraft** designed and developed by Hindustan Aeronautics Limited (HAL) at the India Pavilion during the Expo.

What is Mission DefSpace?

➤ About:

- It is an ambitious effort to **develop innovative solutions for the three Services (Indian airforce, Navy and Army)** in the space domain through the Indian industry and start-ups.
- 75 challenges are being opened to get **innovative solutions**, based on the defence requirements in the space domain.
- Startups, innovators and the private sector will be invited to **find solutions for the problems that will include both offensive and defensive capabilities**.
- It aims to develop a range of military applications for space warfare and to enable the private industries to **offer solutions to the armed forces for future offensive and defensive requirements**.
- Defence applications in space will not only help the Indian armed forces **but can also be extended to friendly foreign nations**.

What is the Indigenisation of Defence?

➤ About:

- Indigenisation is the capability of **developing and producing any defence equipment within the country** for the dual purpose of achieving self-reliance and reducing the burden of imports.
- **Self-reliance in defence** manufacturing is one of the key objectives of the Department of Defence Production.
 - **Defence Research Development Organisation (DRDO), Defence Public Sector Undertakings (DPSUs)** and private organisations are playing a critical role in indigenisation of defence industries.
- **India is among the world's largest arms importers**, and the armed forces are expected to spend about USD 130 billion on defence purchases over the next five years.
- **4th Indigenisation List:**
 - It lays special focus on **equipments/ stems, which are being developed and likely to translate into firm orders** in the next five to 10 years.
 - The items listed in the fourth list will provide **ample visibility and opportunity to the domestic defence industry for understanding the trend and futuristic needs** of the armed forces and create requisite research and development and manufacturing capacity within the country.

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➤ **Significance:**○ **Promote Domestic Industry:**

- These weapons & platforms will promote domestic industry and transform R&D and manufacturing in the country.

○ **Reducing Fiscal Deficit and Instills Nationalism:**

- The other benefits of indigenisation will be reduction in the **fiscal deficit**, security against its porous borders and hostile neighbours, generation of employment and ignition of the fire of nationalism and patriotism with the strong sense of integrity and sovereignty amongst the Indian Forces.

What is HTT-40 Indigenous Trainer Aircraft?

- HTT-40 is a **basic training aircraft developed by Hindustan Aeronautics Limited (HAL)** for the Indian Air Force (IAF).
- It will replace the **ageing fleet of HAL HPT-32 Deepak trainers** that are in service with the IAF.
- Its trainer offers the **best-in-class fuel economy and power rating**.
- It takes-off from a short distance and has a **high climb rate**.
- It has a maximum speed of **450km/h** and can reach a maximum distance of **1,000km**. The stall speed with flaps down is **135km/h**.



DefExpo-2022

Why in News?

The 12th Edition of DefExpo 2022 is being held in Gandhinagar, Gujarat.

- The **11th edition of DefExpo** was held at **Lucknow (Uttar Pradesh)** in 2020.

What is DefExpo 2022?➤ **About:**

- DefExpo is a **flagship biennial event of the Ministry of Defence**, showcasing the land, naval, air as well as homeland security systems.

➤ **DefExpo 2022:**

- It is being held in a first ever four-venue format which promises to engage the public and inspire them to join the Aerospace and Defence manufacturing sector; for **'Aatmanirbharta' in Defence**.
- The aim is to showcase the might of the **domestic defence industry which is now powering 'Make in India, Make for the World'** resolve of the Government and the nation at large.
- It is the first-ever edition exclusively for Indian companies.

➤ **Theme:** Path to Pride.➤ **Key Events:**

- It will host the 2nd edition of the **India-Africa Defence Dialogue (IADD)**, with invites extended to 53 African countries.
 - The IADD will explore **new areas of convergence for mutual engagement, including in areas like capacity building**, training, cyber security, maritime security and counter terrorism.
 - India's approach towards Africa is guided by the **Kampala Principles**.
- A separate **Indian Ocean Region plus (IOR+)** conclave with participation of approximately 40 countries will see India **pitching its military hardware to various countries**.
- It will also mark the celebration of one year of the **formation of the seven new defence companies**, carved out of the erstwhile **Ordnance Factories**.
 - All these companies will be participating for the first time at DefExpo.

What are the Defence Sector**Reforms Under Aatmanirbhar Bharat Abhiyan?**

- **Revision of FDI Limit:** The **FDI limit in defence manufacturing** under automatic route is raised from 49% to 74%.
- **Project Management Unit (PMU):** The government is expected to begin time-bound defence procurement and faster decision making by setting up a Project Management Unit (for contract management purposes).

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- **Reduction in Defence Imports:** The government will notify a list of weapons/platforms banned for imports and thus such items can only be purchased from the domestic market.
 - Separate budget provision for domestic capital procurement.
- **Corporatisation of the Ordnance Factory Board:** It will include a **public listing of some units**, ensuring a more efficient interface of the manufacturer with the designer and end-user.

Use of Regional Language in Legal System

Why in News?

Recently, the Prime Minister inaugurated the All-India Conference of Law Ministers and Law Secretaries via video conference.

- While Inaugurating the Conference, PM bats for **use of regional languages in the legal system to bring ease of justice**.
- He stressed that new laws should be written in a clear manner and in regional languages to bring in “ease of justice,” so that even the poor can easily understand them and legal language doesn’t become a barrier for citizens.

What is the Background of Languages in the Legal System?

- **Background:**
 - The language used in Courts in India has seen a transition over centuries with the shift from Urdu to Persian and Farsi scripts during the Mughal period which continued in subordinate courts even during the British Rule.
 - The British introduced a codified system of law in India with English as the official language.
 - Post-independence, **Article 343** of the Constitution of India provides that the official language of the Union shall be Hindi in the Devanagari script.
 - However, it mandated that the English language will continue to be used for all official purposes of the Union for 15 years from the commencement of the Constitution of India.

- It further provides that the **President** may, during the said period, by order to authorise the use of the Hindi language for any official purpose of the Union, other than the English language.

➤ Constitutional Provisions:

- **Article 348(1)(a)** states that unless Parliament by law provides otherwise, all proceedings before the **Supreme Court** and in every High Court shall be conducted in English.
- **Article 348(2)** provides further that notwithstanding the provisions of Article 348(1), the **Governor** of a state may, with the previous consent of the President, authorise the use of Hindi or any other language used for any official purpose, in proceedings in the High Court.
 - States of Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh have already authorised the use of Hindi in proceedings before their respective high courts and taking a cue, Tamil Nadu is also working in that direction – to authorise the use of Tamil before its high court.
- A further provision states that nothing in this clause would apply to any judgement, decree, or order made by the High Court.
- Therefore, the **Constitution recognizes English as the primary language of the Supreme Court and the High Courts**, with the caveat that when some other language is used in the proceedings of High Courts, judgments of the High Courts must be delivered in English.
- **Official Languages Act 1963:**
 - It empowers the **Governor of a state to, with previous consent of the President, authorise the use of Hindi/the official language of the state**, in addition to English, for the purpose of any judgement, decree or order passed by the High Court of that state.
 - It further **provides that where any judgement/decree/order is passed in any such language** it shall be accompanied by a translation of the same in English.
 - Read with the constitutional provisions, it is clear that primacy is given to English even by this Act.
 - The Official Languages Act makes no mention of the Supreme Court, where English is the only language in which proceedings are conducted.

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➤ Language of Subordinate Courts:

- The language of all courts subordinate to High Courts generally remains the same as the language on the commencement of the **Civil Procedure Code 1908**, till the state government determines.
- There are two provisions **regarding the use of language in subordinate courts**.
 - Under Section 137 of the Code of Civil Procedure, the language of the district courts shall be similar to the language of the act.
- The state government has the **power to declare any regional language as an alternative** for the proceedings of the court.
 - However, judgments, orders, and decree may be passed by the magistrate in English.
 - The recording of the evidence shall be done in the prevailing language of the state.
 - In case of a pleader being unacquainted with English, a translation into the language of the court shall be supplied to him on his request and the court shall bear such costs.
- Section 272 of the Code of Criminal Procedure 1973, states that the **State government shall determine the language of all courts** other than the High Courts. So, broadly it means that the language used in the district courts shall be in the regional language as the state government directs.

What are the Reasons for Using English Language in Legal System?

➤ About:

- Just like cases from all over the country come to the Supreme Court, judges and lawyers of the Supreme Court also come from all parts of India.
- Judges can hardly be expected to read documents and hear arguments in languages with which they are not familiar.
- Without the use of English, **it would be impossible to discharge their duty**. All judgments of the Supreme Court are also delivered in English.
 - Though, in 2019, the Court introduced an initiative to translate its judgments into regional languages, it is rather a tall order given the sheer volumes of judgments which the Court delivers.

➤ Significance:

- **Uniformity:** At present the **judicial system in India is well developed**, integrated and uniform throughout the country.
- **Easy Access:** Lawyers as well as the judges have the benefit of easy access to the views of other high courts on similar legislations and other matters of law and constitution.
- **Seamless Transfers:** Presently, the judges from one high court are transferred to other high courts seamlessly.
- **Unified Structure:** This has given a unified structure to the Indian judicial system. The hallmark of any robust legal system is that the law should be certain, precise and predictable and we have nearly achieved that in India.
- **Link Language:** To a very great extent, we owe it to the English language, which has served as a link language for India where we have about two dozen official state languages.

6th East Asia Summit Education Minister's Meeting

Why in News?

Recently, India participated in the 6th East Asia Summit Education Minister's Meeting held in Hanoi, Vietnam.

What is the East Asia Summit?

➤ About:

- Established in 2005, it is a **forum of 18 regional leaders for strategic dialogue** and cooperation on the key political, security, and economic challenges facing the Indo-Pacific region.
- The concept of an East Asia Grouping was first promoted in 1991 by the then Malaysian Prime Minister, Mahathir bin Mohamad.
- There are **six priority areas of regional cooperation** within the framework of the EAS.
 - These are – Environment and Energy, Education, Finance, Global Health Issues and Pandemic Diseases, Natural Disaster Management, and ASEAN Connectivity.

➤ Membership:

- It comprises the ten member states of the **ASEAN (Association of Southeast Asian Nations)** which

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are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, along with 8 other countries namely Australia, China, Japan, India, New Zealand, the Republic of Korea, Russia and the USA.

- It is an ASEAN-centred forum so it can only be chaired by an ASEAN member.
 - Brunei Darussalam is the chair for 2021.

➤ **EAS Meetings and Processes:**

- The EAS calendar culminates in the annual Leaders' Summit, which is usually held alongside ASEAN Leaders' meetings in the fourth quarter of every year.
- Meetings of EAS Foreign Ministers and Economic Ministers are also held annually.

➤ **India and EAS:**

- India is one of the founding members of the East Asia Summit.
- At the East Asia Summit in Bangkok in November 2019, India had unveiled India's **Indo-Pacific Oceans Initiative (IPOI)**, which is aimed at forging partnerships to create a secure and stable maritime domain.

What are the Issues Related to the Education Sector in India?

- **Inadequate Infrastructure in Schools:** According to the Unified District Information System for Education (UDISE) for 2019-20, **only 12% of schools have internet facilities and 30% have computers.**
- **High Dropout Rate:** The **dropout rate is very high in primary and secondary levels.** Most of the students in 6-14 age groups leave the school before completing their education. It leads to wastage of financial and human resources.
- **Problem of Brain Drain:** Due to cutthroat competition for getting admission in top institutes like IITs and IIMs, a **challenging academic environment is created for a large number of students in India**, so they prefer going abroad, that makes our country deprived of good talent.
- **Mass Illiteracy:** In spite of constitutional directives and efforts aimed at enhancing education, around **25% of Indians still remain illiterate**, which also leaves them socially and digitally excluded.
- **Lack of Technical and Vocational Education:** **Development of technical and vocational education**

is quite unsatisfactory, due to which the number of educated unemployed persons is increasing day by day.

- **Gender-Inequality:** Despite the government's effort to ensure equality of opportunity for education for both men and women in our society, **the literacy rate of women in India, especially in rural areas, still remains very poor.**

What are the Education Initiatives taken by India?

➤ **National Education Policy 2020:**

- NEP 2020 encourages a holistic, flexible & multidisciplinary approach to education and it is based on foundational pillars of access, equality, quality, affordability & accountability & is aligned with **Sustainable Development Goals (SDGs) 2030.**

➤ **PM SHRI scheme:**

- Under the scheme, more than 14,500 schools will be developed across India with all components of NEP 2020 as exemplar schools.
- These schools will offer mentorship to other schools in their vicinity.

➤ **PM- eVidya:**

- The Central government had launched the PM e-Vidya programme in 2020 to boost online learning.
- It unifies all efforts related to digital/online/on-air education to enable multi-mode access for imparting education by using technology to minimise learning losses.

- **e-Learning Platforms:** Government had also launched various e-learning platforms like DIKSHA, SWAYAM MOOCS platform, Virtual Labs, e-PG Pathshala and National Digital Library.

Election Symbols

Why in News?

The Election Commission allotted the "two swords and shield" symbol to the Maharashtra Chief Minister Eknath Shinde-led faction of the Shiv Sena for the upcoming byelection.

- The **Election Symbols (Reservation and Allotment) Order, 1968** empowers the Election Commission to recognise political parties and allot symbols.

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What are the Key Points Related to Election Symbols?

➤ About:

- An electoral or election symbol is a standardized symbol allocated to a political party.
- They are used by the parties during their campaigning and are shown on **Electronic Voting Machines (EVMs)**, where the voter chooses the symbol and votes for the associated party.
- They were **introduced to facilitate voting by illiterate people**, who can't read the name of the party while casting their votes.
- In the 1960s, it was proposed that the regulation, reservation, and allotment of electoral symbols should be done through a law of Parliament, i.e., Symbol Order.
- In a response to this proposal, the ECI stated that the recognition of political parties is supervised by the provisions of **Election Symbols (Reservation and Allotment) Order, 1968** and so will the allotment of symbols.
 - The Election Commission registers political parties for the purpose of elections and grants them recognition as national or state parties on the basis of their poll performance. The other parties are simply declared as registered-unrecognised parties.
 - The **recognition determines their right to certain privileges** like allocation of the party symbols, provision of time for political broadcasts on television and radio stations and access to electoral rolls.
 - **Every national party and every state party is allotted a symbol exclusively** reserved for its use throughout the country and the states respectively.

➤ Election Symbols (Reservation and Allotment) Order, 1968:

- Under Paragraph 15 of the Order, EC can decide disputes among rival groups or sections of a **recognised political party** staking claim to its name and symbol.
 - The EC is the only authority to decide issues on a dispute or a merger under the order. The

Supreme Court (SC) upheld its validity in **Sadiq Ali and another vs. ECI in 1971**.

- It applies to disputes in recognised national and state parties.
- For splits in **registered but unrecognised parties**, the EC usually advises the warring factions to resolve their differences internally or to approach the court.
- In almost all disputes decided by the EC so far, a clear majority of party delegates/office bearers, MPs and MLAs have supported one of the factions.
- Before 1968, the EC issued notifications and executive orders under the Conduct of Election Rules, 1961.
- The splinter group of the party - other than the group that got the party symbol - had to register itself as a separate party.
 - They could lay claim to national or state party status only on the basis of its performance in state or central elections after registration.

D.Y. Chandrachud: 50th Chief Justice of India

Why in News?

Justice Dhanajaya Yeshwant Chandrachud was appointed as the 50th **Chief Justice of India (CJI)** succeeding the 49th CJI Uday Umesh Lalit.

- Justice Chandrachud will have a **relatively longer tenure of two years** and is **due to retire on 10th November, 2024**.

What are the Key Facts about Chief Justice of India (CJI)?

➤ Qualifications:

- The CJI should be a **citizen of India**.
- He/She should:
 - Have been for at least **five years a Judge of a High Court or of two or more such Courts in succession** or
 - Have been for at least **ten years an advocate of a High Court or of two or more such Courts in succession**, or
 - Be, in the opinion of the President, **a distinguished jurist**.

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➤ Appointment of the CJI:

- The CJI and the Judges of the **Supreme Court (SC)** are appointed by the President under **clause (2)** of **Article 124** of the Constitution.
- As far as the CJI is concerned, the **outgoing CJI recommends his successor**.
 - The Union Law Minister forwards the recommendation to the Prime Minister who, in turn, advises the President.
- SC in the **Second Judges Case (1993)**, ruled that the senior most judge of the Supreme Court should alone be appointed to the office of the CJI.
- The **SC collegium is headed by CJI** and comprises four other senior most judges of the court.
 - The collegium system is the **system of appointment and transfer of judges** that has evolved through judgments of the SC (Judges Cases), and not by an Act of Parliament or by a provision of the Constitution.

➤ Administrative Powers of CJI (Master of Roster):

- It is common to refer to the office as primus inter pares – **first amongst equals**.
- Besides his **adjudicatory role**, the CJI also plays the role of the **administrative head of the Court**.
- In his administrative capacity, the Chief Justice **exercises the prerogative of allocating cases to particular benches**.
- CJI **also decides the number of judges that will hear a case**.
 - Thus, he can influence the result by simply choosing judges that he thinks may favour a particular outcome.
- Such administrative powers **can be exercised without collegial consensus**, and without any stated reasons.

➤ Removal:

- He/She can be removed **by an order of the President** only after an address by Parliament has been presented to President.
 - This should be **supported by a special majority of each House of Parliament** (i.e., by a majority of the total membership of that House and by a majority of not less than two-thirds of the members of that House present and voting).

- **Grounds of Removal:** Proved misbehaviour or Incapacity (Article 124(4)).

➤ Recent Development:

- In 2019, the SC ruled that the **office of Chief Justice of India (CJI) comes under the purview of the Right to Information (RTI) Act, 2005**.

Uniform Civil Code

Why in News?

The Ministry of Law and Justice has told the **Supreme Court** that the court cannot direct Parliament to frame any law and it sought dismissal of **PILs (Public Interest Litigation)** seeking a **Uniform Civil Code (UCC) in the country**.

What are the PILs about?

- Petitioners sought uniformity in the **personal laws regulating marriage divorce, maintenance and alimony** (money that has to be paid by law to former wife or husband).
- The petitions sought steps to **remove anomalies regarding laws for divorce and make them uniform for all citizens** and uniform guidelines for adoption and guardianship of children.

What is the Government's Stand?

- This is a matter of policy for the **elected representatives of the people to decide and no direction in this regard can be issued** by the court. It is for the legislature to enact or not enact a piece of legislation.
- The Law Ministry had requested the **Law Commission** to examine various issues relating to the UCC and make recommendations considering the sensitivity and in-depth study involved of various personal laws governing different communities.
 - The 21st Law Commission had uploaded a consultation paper titled 'Reform of Family Law' subsequently in August 2018. But the term of the 21st Law Commission came to an end in August 2018.

What is a Uniform Civil Code?

➤ About:

- UCC is envisaged to **provide for one law for the entire country, applicable to all religious communities** in

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their personal matters such as marriage, divorce, inheritance, adoption etc.

- **Article 44** of the Constitution lays down that the state shall endeavour to secure a UCC for the citizens **throughout the territory of India**.
 - Article 44 is one of the **Directive Principles of State Policy (DPSP)**.
 - The purpose behind Article 44 is to strengthen the object of **"secular democratic republic"** as enshrined in the Preamble of the Constitution.

➤ **Background:**

- The origin of the UCC dates back to **colonial India when the British government submitted its report in 1835** stressing the need for **uniformity in the codification of Indian law** relating to crimes, evidence, and contracts, specifically recommending that personal laws of Hindus and Muslims be kept outside such codification.
- Increase in legislation dealing with personal issues in the far end of British rule forced the government to form the **B N Rau Committee to codify Hindu law in 1941**.
- Based on these recommendations, a bill was then adopted in 1956 as the **Hindu Succession Act** to amend and codify the law relating to intestate or unwilled succession, among Hindus, Buddhists, Jains, and Sikhs.
 - However, there were separate personal laws for Muslims, Christians and Parsis.
- In order to bring uniformity, the courts have often said in their judgements that the government should move towards a UCC.
 - The judgement in the **Shah Bano case (1985)** is well known.
 - Another case was the **Sarla Mudgal Case (1995)**, which dealt with the issue of bigamy and conflict between the personal laws existing on matters of marriage.
- By arguing that practices such as **triple talaq** and **polygamy** impact adversely the right of a woman to a life of dignity, the Centre has raised the question whether constitutional protection given to religious practices should extend even to those that are not in compliance with fundamental rights.

➤ **Status of Uniform Codes in India:**

- Indian laws do follow a uniform code in most civil matters such as **Indian Contract Act 1872, Civil Procedure Code**, Transfer of Property Act 1882, Partnership Act 1932, **Evidence Act, 1872 etc.**
- States, however, have made hundreds of amendments and, therefore, in certain matters, there is diversity even under these secular civil laws.
 - Recently, several states refused to be governed by the **uniform Motor Vehicles Act, 2019**.
- **As of now, Goa is the only state in India with a UCC.**

What are the Implications of Uniform Civil Code on Personal Laws?

➤ **Protection of Vulnerable Section of Society:**

- The UCC aims to provide protection to vulnerable sections as envisaged by Ambedkar including women and religious minorities, while also promoting nationalistic fervour through unity.

➤ **Simplification of Laws:**

- A Uniform Civil Code will simplify the **complex laws around marriage ceremonies**, inheritance, succession, adoptions, making them one for all. The same civil law will then be applicable to all citizens irrespective of their faith.

➤ **Adhering to the Ideal of Secularism:**

- Secularism is the objective enshrined in the Preamble; a secular republic needs **a common law for all citizens rather** than differentiated rules based on religious practices.

➤ **Gender Justice:**

- If a UCC is enacted, **all personal laws will cease to exist**. It will do away with gender biases in existing laws.

What are the Challenges?

➤ **Diverse Personal Laws:**

- The customary practices among various communities vary a lot.
 - It is also a myth that **Hindus are governed by one uniform law**. Marriage among close relatives is prohibited in the north but considered auspicious in the south.
- Lack of uniformity in personal laws is **also true of Muslims and Christians**.

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- The Constitution itself protects **local customs of Nagaland, Meghalaya and Mizoram.**
- The vast diversity of the personal laws, along with the devotion to which they are adhered to, makes uniformity of any sort very difficult to achieve. It is very tough **to find a common ground between different communities.**
- **Communal Politics:**
 - The demand for a uniform civil code has been framed in the context of communal politics.
 - A large section of society sees it as majoritarianism under the garb of social reform.
- **Constitutional Hurdle:**
 - **Article 25** of Indian constitution, that seeks to preserve the freedom to practise and propagate any religion gets into conflict with the concepts of equality enshrined under **Article 14 of Indian Constitution.**

Fresh Hindi Imposition Row

Why in News?

The 11th volume of the Report of the Official Language Committee submitted to the President of India, has triggered angry reactions from some of the Southern states (they view the report as an attempt to impose Hindi on them).

What are the Recommendations of the Panel?

- Hindi should be **the medium of instruction in IITs, IIMs, and central universities** in the Hindi-speaking states.
- The language used for communication in the administration should be Hindi, and efforts should be made to teach the curriculum in Hindi.
- High Courts in other states, where proceedings are recorded in English or a regional language can make available translations in Hindi, because verdicts of High Court of other states are often cited in judgments.
 - Lower courts in Uttar Pradesh, Uttarakhand, Madhya Pradesh, Bihar, Haryana, and Rajasthan already use Hindi.
- The use of Hindi, by the officers and other employees in the central government, in Hindi-speaking states

would **reflect in their Annual Performance Assessment Report (APAR).**

- It is the Committee's responsibility and role to see that the Hindi language is promoted in official communication.
- There are specific proposals to make the language in official letters and invitations simpler.
 - "There should be a deliberate attempt to reduce the usage of the English language in official communication and to increase the usage of Hindi".
 - "Knowledge of Hindi would be compulsory in a number of government jobs,".

Are these Recommendations Intended for Every State Government, its Institutions, and Departments?

- **States like Tamil Nadu and Kerala are exempt as per The Official Languages Act, 1963** and the Rules and Regulations (of the Act), 1976.
- **The law is implemented only in 'A' category states, in which the official language is Hindi."**
 - According to the Rules, **region 'A' includes** the states of Bihar, Haryana, Himachal Pradesh, Madhya Pradesh, Chhattisgarh, Jharkhand, Uttarakhand, Rajasthan, and Uttar Pradesh, and the Union Territories of Delhi and Andaman and Nicobar Islands.
 - **Region 'B'** includes Gujarat, Maharashtra, and Punjab, and the Union Territories of Chandigarh, Daman and Diu and Dadra and Nagar Haveli.
 - Other states, where the **use of Hindi is less than 65%, are listed under region 'C'.**
- The **Committee** has suggested that efforts should be made to use **Hindi "100%" in the 'A' states.**
 - The medium of instruction in IITs, central universities, and Kendriya Vidyalayas (KVs) in the 'A' states should be Hindi, while the regional language should be used in other states.
- **As per Committee, Use of Hindi in Government Departments:**
 - The use of Hindi in Ministries like Defence and Home are 100% but the Education Ministry has not yet come to that level.
 - The **Committee had certain parameters to assess the usage of language.**

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- Many central universities including Delhi University, Jamia Millia Islamia, BHU, and AMU, the usage is just 25-35% when it should have been 100%.

What is Committee of Parliament on Official Language?

- The Committee of Parliament on Official Language was **set up in 1976 under Section 4 of The Official Languages Act, 1963**.
- With the active promotion of Hindi being mandated by Article 351 of the Constitution, the Official Language Committee was set up to review and promote the use of Hindi in official communications.
- The **first Report** of the Committee was submitted in **1987**.
- The Committee is constituted & chaired by the union home minister, and has, in accordance with the provisions of the 1963 Act, 30 members (20 MPs from Lok Sabha and 10 MPs from Rajya Sabha).
- Unlike the **other Parliamentary panels submit its report to Parliament**, this panel **submits its report to the President**, who "shall [then] cause the report to be laid before each House of Parliament, and sent to all the State Governments".

What are the Government's Effort to Promote Hindi and Other Regional Language?

- **Three-Language Formula (Kothari Commission 1968)**
 - **First language:** It will be the **mother tongue** or regional language.
 - **Second language:** In **Hindi** speaking states, it will be other modern Indian languages or English. In non-Hindi speaking states, it will be Hindi or English.
 - **Third Language:** In Hindi speaking states, it will be **English or a modern Indian language**. In the non-Hindi speaking state, it will be **English or a modern Indian language**.
- The new **National Education Policy (NEP) in 2020** too had attempts to "promote Hindi, Sanskrit" and regional languages. The **NEP says that mother tongue or the regional language would be the "preferred" mode of instruction until Class 5, and possibly Class 8**.
 - **NEP 2020 it was decided to push for the three-language formula, to promote multilingualism and national unity.**

What is Position of Hindi in India with respect to other Regional Languages?

- **As per, 2011 Linguistic census:** there are 121 mother tongues in India.
 - 52.8 crores individuals or 43.6% population declared Hindi as its mother tongue and 11% of the population reported Hindi as their second language.
 - So, 55% of the population knows Hindi as either as mother tongue or as their second language.
 - Bengali 9.72 crore individual and 8% population, as 2nd most spoken language in India.
 - The share of the languages like Bengali, Malayalam and Urdu has declined but Hindi and Punjabi speakers have increased.
 - Between 1971 to 2011 the speakers of Hindi multiplied by the 2.6 times from 20.2 Crore to 52.8 crores.

What is the Constitutional Status of Hindi?

- **Schedule 8** of the Indian Constitution has 22 Official Languages, **including Hindi as well**.
- **Article 351** states that, it is the duty of the Union to **encourage the spread of the Hindi language** to make it lingua franca (a shared language of communication used by people who are speakers of different languages) in India without interfering with its genius, style and expressions.
- **Article 348 (2)** provides that the Governor of the State may, with the previous consent of the President, authorize the use of the **Hindi language** or any other language used **for any official purpose of the State, in the proceedings of the High Court** having its principal seat in that State provided that **decrees, judgments or orders passed by such High Courts** shall be in English.
- As per **Article 343(1)** of the Constitution of India, **Hindi in Devanagari script shall be the official language of the Union**.
- **The Official Language Act, 1963** provides under **Section 7** that the use of Hindi or official language of a State in addition to the English language may be authorized, with the consent of the President of India, by the Governor of the State for the purpose of judgments, decrees etc. made by the High Court for that State.

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Electoral Bond

The lowdown on a vexed issue

What are electoral bonds?

Sold four times a year (in January, April, July and October), electoral bonds allow political parties to accept money from donors whose identities are kept anonymous. They are sold in multiples of ₹1,000, ₹10,000, ₹1 lakh, ₹10 lakh, and ₹1 crore. The scheme was first floated in 2017 and implemented in 2018.

Who can sell them?

SBI is the sole authorised bank to sell and redeem the bonds. Customers of other banks can also purchase the bonds via different payment channels provided to them. However, a political party can only redeem the bond from one of the 29 authorized branches of the bank.

Which parties can receive donations via electoral bonds?

A political party must also have at least 1% vote share in most recent general elections or assembly elections to receive donations via electoral bonds.

What is the controversy around them?

The scheme has been challenged on the grounds that it lacks transparency. Those opposed to it have also asserted that a large chunk of the donations have gone to the BJP, the ruling party. In 2019-20, the BJP received over 75% of the electoral bonds, according to the Election Commission data. Critics have also argued that since the bonds are sold through a government-owned bank there is a possibility that the party in power can find out who is funding their political rivals.

National Curriculum Framework

Why in News?

Recently, the Union Education ministry launched the **National Curriculum Framework** for foundational stage education of children in the **three to eight years age group**.

Key features of the framework

The National Curriculum Framework, made for the 3-8 age group, is the first such integrated curriculum for children.

What replaces textbooks?

NCF suggests the use of simple worksheets for the 3-6 age group

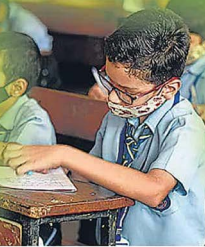
- "...for ages 3-6, there should not be any prescribed textbooks for the children... (they) should not be burdened with textbooks," the document states.

Why is this an important step?

- Vast numbers of school-going children routinely fail learning outcome tests
- Effect of holistic education in founding years on learning levels of children

Other reforms

- Toy-based learning
- Avoiding stereotypes
- Gender representation
- Ethical, moral awareness



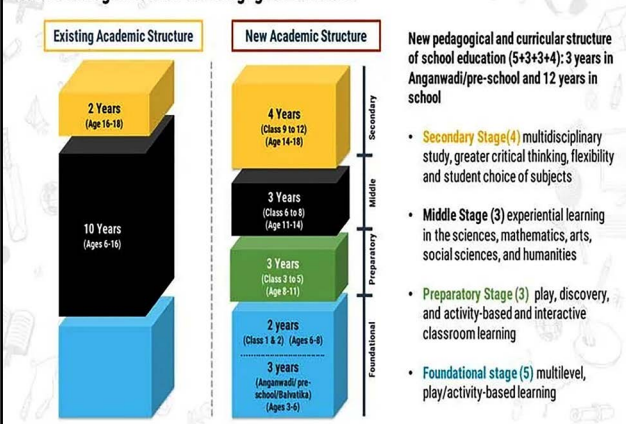
What is the National Curriculum Framework?

- The NCF has four sections:
 - the National Curriculum Framework for School Education
 - the National Curriculum Framework for Early Childhood Care and Education
 - the National Curriculum Framework for Teacher Education
 - National Curriculum Framework for Adult Education
- The framework focuses on the '**panchakosha**' concept - the ancient Indian emphasis on the body-mind connection.
- The NCF says its **five parts are physical development** (sharirik vikas), development of life energy (pranik vikas), emotional and mental development (manasik vikas), intellectual development (bauddhik vikas) and spiritual development (chaitisik vikas).
- It is an important step taken to implement the **New Education Policy-2020**.

What is NEP, 2020?

- The National Education Policy 2020 (NEP 2020) is transforming education in India.
- It has set the **education system on a path to delivering the highest quality education** for all, with equity and inclusion.
- Amongst the most transformative aspects of NEP 2020 is the **new 5+3+3+4 curricular structure** which integrates Early Childhood Care and Education for all children of ages 3 to 8.
- **Early childhood lays the foundation for life-long learning** and development- it is a key determinant of the quality of overall life.

Transforming Curricular & Pedagogical Structure



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What are the Constitutional Provisions and Laws related to Education in India?

➤ Constitutional Provisions:

- Part IV of Indian Constitution, **Article 45 and Article 39 (f) of Directive Principles of State Policy (DPSP)**, has a provision for state-funded as well as equitable and accessible education.
- The **42nd Amendment to the Constitution in 1976** moved education from the State to the Concurrent List.
 - The education policies by the Central government provides a broad direction and state governments are expected to follow it. But it is not mandatory, for instance Tamil Nadu does not follow the three-language formula prescribed by the first education policy in 1968.
- The **86th Amendment in 2002** made education an enforceable right under Article 21-A.
 - **Article 21A** of the Constitution makes it obligatory on the State to provide free and compulsory education to children between the age of 6 and 14 years.

➤ Related Laws:

- **Right To Education (RTE) Act, 2009** aims to provide primary education to all children aged 6 to 14 years and enforces education as a Fundamental Right.
 - It also **mandates 25% reservation for disadvantaged sections** of the society.

➤ Government Initiatives:

- **Sarva Shiksha Abhiyan, Mid Day Meal Scheme, Navodaya Vidyalayas (NVS schools), Kendriya Vidyalayas (KV schools)** and use of IT in education are the result of the NEP of 1986.

Broadcasting only through Prasar Bharati

Why in News?

Recently, the Ministry of Information and Broadcasting (I&B) has issued an advisory stating that any kind of broadcasting be done only through **Prasar Bharti**.

What is Prasar Bharti?

- Prasar Bharati is a statutory autonomous body. It is the Public Service Broadcaster of the country.

- It was established under the Prasar Bharati Act in 1997.
- The Prasar Bharati Corporation's main objective is to provide autonomy to Doordarshan and Akashvani in order to "educate and entertain the public."

What is the Advisory?

- It states that ministries, departments of the central government, state governments, and union territory (UT) administrations or entities related to them would not be allowed to enter into broadcasting or distribution of broadcasting activities.
- In case central ministries, states, UTs and **entities related to them are already broadcasting their content**, it would now be done through the public broadcaster Prasar Bharati.
- It is in line with the recommendations of the **Telecom Regulatory Authority of India (TRAI)**, the **Supreme Court** judgment and the legal opinion given by the Ministry of Law and Justice.
 - As per the Supreme Court, **Public service broadcasting should be in the hands of a statutory corporation** or corporation set up under a statute **to ensure their impartiality in political, economic, and social matters.**
- As per the existing policy guidelines for setting up of community radio in India, government universities, colleges, schools, Krishi Vigyan Kendras, central / state universities, including autonomous bodies and agricultural universities are eligible for setting up of community radios.

What were the TRAI's Recommendations?

- In 2012, the TRAI had suggested that the Central and State governments, their companies, undertakings, joint ventures with the private sector and the entities funded by the governments **should not be allowed to enter the business of broadcasting** and, or, distribution of TV channels.
 - It relied upon the **Sarkaria Commission's recommendation and the Cricket Association** case verdict.
- The importance of Prasar Bharati should also **not be lost sight of**. The body should fulfil the **legitimate aspirations of government entities as regards broadcasting activities**, while at the same time recommending the 'arm's length' relationship between Prasar Bharati and the government be further strengthened to enhance its autonomy and functional independence.

Note:

What is TRAI?

- **Legal Backing:** The **TRAI** was established on 20th February, 1997 by the Telecom Regulatory Authority of India Act, 1997.
- **Objectives of TRAI:**
 - TRAI's mission is **to create and nurture conditions for growth of** telecommunications in the country.
 - TRAI regulates telecom services including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
 - It also aims to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.
- **Headquarters:** The head office of the TRAI is located at New Delhi.
- **Powers:**
 - **Order for Furnishing Information:** It can call upon any service provider to furnish in writing the information or explanation relating to its affairs as the Authority may require.
 - **Appointments for Inquiry:** The Authority may appoint one or more persons to make an inquiry in relation to the affairs of any service provider.
 - **Order for Inspection:** It is empowered to direct any of its officers or employees to inspect the books of accounts or other documents of any service provider.
 - **Issue Directions to Service Providers:** The Authority shall have the power to issue such directions to service providers as it may consider necessary for proper functioning by service providers.

National Credit Framework

Why in News?

The Ministry of Education recently unveiled a draft '**National Credit Framework**' (NCrF) which aims to bring the entire education system, from school to university, into the academic 'credit' regime and has sought public view.

What is the National Credit Framework (NCrF)?

- **About:** The new framework is a part of the **National Education Policy**.

- According to the framework, an academic year will be defined by the number of hours a student puts in. Credits will be provided to them accordingly at the end of each academic year.
- The framework has been formulated under the University Grants Commission (Establishment and Operation of Academic Bank of Credits in Higher Education) Regulations, notified in July 2021.
- **Credit System:** The report of the high-level committee on the NCrF, put out in public domain, proposes credit levels from class 5 onward itself- which will be credit level 1, going up to credit level 7 and 8 with post-graduation and a doctorate, respectively.
 - Credit levels will increase by 0.5 for every year of learning.
- **Earning Credit:** The total 'Notional Learning hours in a year' for assignment of Credits will be 1200 hours. A minimum of 40 credits may be earned for 1200 hours of learning every year with 20 credits per semester of six months. Each Credit will come with 30 hours of learning- 30 hours per credit.
 - Notion learning hours in the context of NCrF means time spent not just in classroom teaching, but also in a range of co-curricular and extracurricular activities. The list of such activities includes sports, yoga, performing arts, music, social work, NCC, vocational education, as well as on-the-job training, internships or apprenticeships.
- **Easy Entry and Exit:** The credit transfer mechanism will also **enable a student/ learner to enter and exit the educational ecosystem, both general and vocational**, at any point of time. In such cases due weightage is given to work experience gained or any other training undertaken by the learner.
- **Due Attention to Co-Curricular Activities:** The new credit framework will **not have any hard separation between Curricular and Co-Curricular**, or various discipline and will count in performance on-classroom teaching/learning/laboratory work/class projects; Sports and games, etc.
- **Aadhaar-enabled student registration:** An Aadhaar-enabled student registration will take place. After student registration, an **Academic Bank of Credit (ABC)** account will be opened. The deposit of degree and credits will take place in those accounts. There will be a knowledge locker along the lines of DigiLocker.

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- **Academic Bank of Credit:** The recently introduced **Academic Bank of Credit (ABC)** for higher education will be expanded to allow for end-to-end management of credits earned from school education onwards and will also include vocational education and trainings, it is envisaged.
- **Significance:**
 - It would work as 'an **umbrella framework for skilling, re-skilling, up-skilling**, accreditation & evaluation' encompassing educational & skilling institutions and workforce.
 - The credits for knowledge acquisition, hands-on training, and positive social outcomes will be a key step for achieving 100% literacy in the next 2-3 years and go towards making India a \$5 trillion economy.

Coal Mines in India Under-Utilised: GEM Report

Why in News?

According to Global Energy Monitor (GEM) Report, India's **Coal Mines** are severely under-utilized amid push for new ones

- GEM is a firm that tracks fuel-source utilization globally. It studies the evolving international energy landscape, creating databases, reports, and interactive tools that enhance understanding.

What is the Background?

- In 2021, India experienced **severe coal crises** with more than **100 of 285 thermal power plants seeing coal stocks fall below the critical mark** of 25% of the required stock, leading to power shortages in several States, including **Andhra Pradesh, Jharkhand, Uttarakhand and Madhya Pradesh**.
- The recently released Global Energy Monitor (GEM) report analyzed annual reports from Coal India, the world's largest coal producer, and its subsidiaries.

What are the Findings?

- **New Coal Mines Increasing Risk of Displacement:**
 - This coal shortage prompted the government to start **developing new coal projects, where 99 new**

coal mines projects are under the pipeline. These projects have the capacity to **produce 427 million tonnes of coal annually (mtpa)**.

- This is despite India's pledge to achieve **net zero emissions by 2070**.
 - These projects will put 165 villages and 87,630 families at risk of displacement. And 41,508 of these families belong to **Scheduled Tribes**.
- **Coal Mines Under-utilized thus Unnecessary:**
 - Since India's coal mines use is severely underutilized so developing new projects to merely fulfill temporary coal shortage is unnecessary.
 - India's coal mines use **only two-thirds of their capacity on average**, with some large ones using only 1%.
- **Delay in Clean Energy Future:**
 - These new mines will increase India's likelihood of **stranded assets, delay a clean energy future—and in the process pose irreversible impacts** on India's rural communities and environments for the sake of economically precarious mining ventures.
- **Exacerbate Water Shortage:**
 - Water shortages would be **exacerbated by the new coal projects**, increasing demand by 1,68,041 kilolitres per day.
 - Of 427 MTPA in new capacity, 159 MTPA will be located in high-risk water zones, while 230 MTPA is planned for zones with extreme water risk.

Why is it Imperative to Move Away from Coal?

- The threat of global warming is looming large over the planet, and can bring about unprecedented natural calamities.
- An effective way to keep the danger at bay is to **cut the use of fossil fuels — coal, natural gas and oil**.
 - About 80% of the world's energy requirements are met by these three fuels.
- The worst culprit of them all is coal, which emits **nearly twice as much carbon dioxide as natural gas and about 60% more than oil**, on a kilogram-to-kilogram comparison.
- The consequence of these chemical reactions gains great significance because the **power sector in India accounts for 49% of total carbon dioxide emissions**, compared with the global average of 41%.

Note:

What are the Properties of Coal?

➤ About:

- It is a type of fossil fuel found in a 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.
 - Gondwana coal forms **India's metallurgical grade as well as superior quality coal**.
 - 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.

➤ Classification:

- **Anthracite** (80 - 95% carbon content, found in small quantities in J&K).
- **Bituminous** (60 - 80% of 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).

Swadesh Darshan Scheme 2.0

Why in News?

Recently, as part of the **first phase of the 'Swadesh Darshan 2'** (beginning from January 2023), the government has identified 15 States across the country to be promoted as part of **India's new domestic tourism policy**.

- This policy moves away from **theme-based tourist circuits and focuses on reviving up destination tourism**.
- Some of the prominent places identified are Jhansi and Prayagraj in Uttar Pradesh, Gwalior, Chitrakoot and Khajuraho in Madhya Pradesh and Ajanta and Ellora in Maharashtra.

What is the Swadesh Darshan Scheme?

➤ About:

- It was **launched in 2014-15 for integrated development** of theme-based tourist circuits — Buddhist Circuit, Coastal Circuit, Desert Circuit, Eco Circuit, Heritage Circuit, Northeast Circuit, Himalayan Circuit, Sufi Circuit, Krishna Circuit, Ramayana Circuit, Rural Circuit, Spiritual Circuit, Tirthankar Circuit, Wildlife Circuit and Tribal Circuit.
- It is **100% centrally funded and efforts** are made to achieve convergence with other schemes of Central and State Governments and also to leverage the voluntary funding available for **Corporate Social Responsibility (CSR)** initiatives of Central Public Sector Undertakings and Corporate Sector.

➤ Objectives:

- To **position tourism as a major engine of economic growth** and job creation.
- **Develop circuits having tourist potential** in a planned and prioritized manner.
- Promote cultural and heritage value of the country to generate livelihoods in the identified regions.
- **Enhancing the tourist attractiveness in a sustainable manner** by developing world class infrastructure in the circuit/destinations.
- **Follow community-based development** and pro-poor tourism approach.
- **Creating awareness among the local communities** about the importance of tourism for them in terms of increased sources of income, improved living standards and overall development of the area.

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- To make full use of the potential and advantages in terms of available infrastructure, national culture and characteristic strong points of each and every region throughout the country by development of theme-based circuits.
- Development of tourist facilitation services to enhance visitor experience/satisfaction.

What is Swadesh Darshan Scheme 2.0?

- **About:**
 - With the mantra of 'vocal for local', the revamped scheme namely **Swadesh Darshan 2.0** seeks to attain "Aatmanirbhar Bharat" by realizing India's full potential as a tourism destination.
 - Swadesh Darshan 2.0 is **not an incremental change but a generational shift to evolve the Swadesh Darshan Scheme** as a holistic mission to develop sustainable and responsible tourism destinations.
 - It will help develop sustainable and responsible destinations with a tourist and destination centric approach.
 - It will **encourage the development of benchmarks** and standards for generic and theme-specific development of tourism destinations and the States will follow the benchmarks and standards while planning and developing the projects.
 - The following major themes have been identified for tourism under the Scheme:
 - Culture and Heritage
 - Adventure Tourism
 - Eco-Tourism
 - Wellness Tourism
 - **MICE Tourism**
 - **Rural Tourism**
 - Beach Tourism
 - Cruises – Ocean & Inland
- **Significance:**
 - The revamped scheme **seeks to enhance the contribution of tourism to local economies.**
 - It **aims to create jobs including self-employment** for local communities, to **enhance the skills of local youth** in tourism and hospitality, to **increase private sector investment** in tourism and hospitality and to **preserve and enhance local cultural and natural resources.**

What are the Other Initiatives taken to Promote Tourism?

- **PRASHAD Scheme:**
 - This scheme **focuses on developing and identifying pilgrimage sites** across India for enriching the religious tourism experience.
 - It aims to integrate pilgrimage destinations in a prioritised, planned and sustainable manner to provide a complete religious tourism experience.
- **Iconic Tourist Sites:**
 - Buddhist Sites at **Bodhgaya, Ajanta & Ellora** have been identified to be developed as **Iconic Tourist Sites** (aimed at enhancing India's soft power).
- **Buddhist Conclave:**
 - Buddhist Conclave is organised every alternate year with the objective of promoting India as a Buddhist Destination and major markets around the globe.
- **Dekho Apna Desh' Initiative:**
 - It was launched by the Ministry of Tourism in 2020 to encourage the citizens to travel widely within the country thus enabling the development of Domestic Tourism tourist facilities and infrastructure.

What is the Scenario of Tourism Sector in India?

- According to the **third Tourism Satellite Account** for 2017-18, 2018-19, and 2019-20, the contribution of tourism to the employment of the country is **14.78%, 14.87 % and 15.34 % respectively.**
- The total jobs generated by tourism are 72.69 million (2017-18), 75.85 million (2018-19) and **79.86 million (2019-20).**
- **India's Tourism is ranked at 10th position** in terms of its contribution to **World GDP (Gross Domestic Product)** in the World Travel and Tourism Council's report in 2019.
 - During 2019, contribution of travel & tourism to GDP was 6.8% of the total economy, ~ Rs. 13,68,100 crore (USD 194.30 billion).

Amendments to the IT Rules, 2021

Why in News?

Recently, government notified **amendments to the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules 2021.**

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- These are **aimed at making internet-open, safe & trusted and accountable**, for the digital nagriks of the country.

What are the Key Amendments to IT Rules, 2021?

- **New Guidelines for Social Media Intermediaries:**
 - Currently, intermediaries are only required to inform users about not uploading certain categories of harmful/unlawful content. These amendments impose a **legal obligation on intermediaries to take reasonable efforts to prevent users from uploading such content**. The new provision will ensure that the **intermediary's obligation is not a mere formality**.
 - The amendment requires intermediaries to **respect the rights guaranteed to users under the Articles 14, 19 and 21 of the Indian Constitution**, therefore, including a reasonable expectation of due diligence, privacy and transparency.
 - For effective communication of the rules and regulations of the intermediary, it is important that the **communication is done in regional Indian languages as well**.
- **Amendments to the Rule 3:**
 - The grounds in **subclause 1 of rule 3 (rule 3(1)(b) (ii))** have been rationalized by **removing the words 'defamatory' and 'libellous'**.
 - Whether any content is defamatory or libellous will be determined through judicial review.
 - Some of the content categories in **subclause 1 of rule 3 (rule 3(1)(b))** have been **rephrased to deal particularly with misinformation**, and content that could **incite violence between different religious/ caste groups**.
- **Establishment of Grievance Appellate Committee(s):**
 - Grievance Appellate Committee(s) will be established to allow **users to appeal against the inaction of, or decisions taken by intermediaries on user complaints**.
 - However, users will always have the **right to approach courts for any remedy**.

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**.

Establish a Grievance Officer:

- They are required to establish a grievance redressal mechanism and **remove unlawful and unfitting content within stipulated time frames**.
 - The grievance officer of the platform's redressal mechanism is **responsible for receiving and resolving complaints of the users**.

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.

Roles and Powers of Governor

Why in News?

Recently, Kerala Governor **warned ministers that the statements of individual ministers** that lower the dignity of the Governor's office **can invite action including withdrawal of pleasure**.

What is Pleasure Doctrine?

About:

- The pleasure doctrine is a **concept derived from English common law**, under which the crown can dispense with the services of anyone in its employ at any time.
- In India, **Article 310 of the Constitution** says every person in the defence or civil service of the Union **holds office during the pleasure of the President**, and every member of the **civil service in the States holds office during the pleasure of the Governor**.
- However, **Article 311 imposes restrictions on the removal of a civil servant**. It provides for civil

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servants being given a reasonable opportunity for a hearing on the charges against them.

- There is also a provision to dispense with the inquiry if it is not practicable to hold one, or if it is not expedient to do so in the interest of national security.
- Under **Article 164, the Chief Minister (CM) is appointed by the Governor**; and the other Ministers are appointed by the Governor on the CM's advice.
- It adds that **Ministers hold office during the pleasure of the Governor**. In a constitutional scheme in which they are appointed solely on the CM's advice, the 'pleasure' referred to is also taken to mean the right of the CM to dismiss a Minister and not that of the Governor. In short, the **Governor of an Indian State cannot remove a Minister on his own**.
- **Supreme Court's View:**
 - **Shamsher Singh & Anr vs State Of Punjab (1974):**
 - In this case, a **seven-judge Constitution Bench of the Supreme Court said that** the President and Governor, custodians of all executive and other powers under various Articles, **shall exercise their formal constitutional powers only upon and in accordance with the advice of their Ministers** save in a few well-known exceptional situations.
 - **Nabam Rebia And Etc. vs Deputy Speaker And Ors (2016):**
 - In this case, the **Supreme Court cited the observations of B R Ambedkar:** "The Governor under the Constitution has no function which he can discharge by himself; no functions at all. While he has no functions, he has certain duties to perform, and the House will do well to bear in mind this distinction."
 - SC ruled that **Article 163 of the Constitution does not give the Governor a general discretionary power** to act against or without the advice of his Council of Ministers
 - **Mahabir Prasad v. Prafulla Chandra 1969:**
 - The case revolved around the question of the **nature of the governor's pleasure under article 164(1)**.
 - The **governor's pleasure under article 164(1) is subject to Article 164(2)**. Thus, the withdrawal

of the governor's pleasure must coincide with the withdrawal of support to the ministry by the assembly.

What are Constitutional Provisions Related to the Governor?

- **Article 153 says** that there shall be a Governor for each State. One person can be appointed as Governor for two or more States.
 - A **Governor is appointed by the President** and is a nominee of the Central Government.
- It is stated that the **Governor has a dual role**.
 - He is the constitutional head of the state, bound by the advice of his Council of Ministers (CoM).
 - He functions as a vital link between the Union Government and the State Government.
- **Articles 157 and 158** specify eligibility requirements for the post of governor. A governor must:
 - Be a citizen of India.
 - Be at least 35 years of age.
 - Not be a member of the either house of the parliament or house of the state legislature.
 - Not hold any office of profit.
- Governor has the power to grant **pardons**, reprieves, etc. (Article 161).
- There is a **CoM with the CM at the head to aid and advise the Governor** in the exercise of his functions, except some conditions for discretion. (Article 163).
- The Governor **appoints the Chief Minister and other Ministers** (Article 164).
- Governor **assents, withholds assent, or reserves the bill** for the consideration of the President passed by the Legislative Assembly (Article 200).
- Governors may **promulgate the Ordinances** under certain circumstances (Article 213).

What are the Friction Points in Governor-State Relations?

- **Governor is envisaged as an apolitical head** who must act on the advice of the council of ministers. However, the Governor enjoys certain discretionary powers granted under the Constitution. **For example:**
 - **Giving or withholding assent to a Bill** passed by the state legislature,

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- **Determining the time needed** for a party to prove its majority, or **which party must be called first to do so**, generally after a hung verdict in an election.
- There are **no provisions laid down for the manner in which the Governor and the state must engage publicly** when there is a difference of opinion.
- The **Governor has a 5-year tenure**, he can remain in office only until the pleasure of the President.
 - In 2001, the National Commission to Review the Working of the Constitution, held that the Governor owes his appointment and his continuation to the Union.
 - There is the apprehension that he is likely to act in accordance with the instructions received from the Union Council of Ministers.
- In the Constitution, **there are no guidelines for exercise of the Governor's powers**, including for appointing a CM or dissolving the Assembly.
- There is **no limit set for how long a Governor can withhold assent to a Bill**.
- The Governor sends a report to the centre which forms the basis of the Union cabinet's recommendations to the President for invoking **Article 356 (President's Rule)**.

What Attempts have been Made to Address Concerns over the Alleged Partisan Role Played by Governors?

- **Changes regarding the Selection of Governors:**

- The National Commission To Review the Working of the Constitution appointed by the Atal Bihari Vajpayee government in 2000 suggested that the **Governor** of a State should be **appointed by the President**, after consultation with the Chief Minister of that State.
- **Proposal by Sarkaria Commission:**
 - The Sarkaria Commission, set up in 1983 to look into Centre-state relations, proposed that the **Vice President of India and Speaker of Lok Sabha should be consulted by the Prime Minister** in the selection of Governors.
- **Punchhi Committee Proposal:**
 - The Justice Madan Mohan Punchhi Committee, constituted in 2007 on Centre-state relations, **proposed in its report that a committee comprising the Prime Minister, Home Minister, Vice President, Speaker, and the concerned Chief Minister should choose the Governor**.
 - The Punchhi Committee **recommended deleting the "Doctrine of Pleasure" from the Constitution** but backed the right of the Governor to sanction the prosecution of ministers against the advice of the state government.
 - It also **argued for a provision for impeachment of the Governor by the state legislature**.



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Economic Scenario

Highlights

- Kalanamak Rice
- Commercial Cultivation of GM Mustard
- Indian Currency Design Mechanism
- Report by RBI on Big Techs
- PM Kisan Samman Sammelan
- Vision—Developed India: Opportunities and Expectations of MNCs
- 75 New Digital Banking Units in India
- RTI Exemption for Banks
- Organic Fertilisers
- Enhanced Access & Service Excellence
- Internationalisation of Rupee
- Prevention of Money Laundering Act
- Liquidity Adjustment Facility

Kalanamak Rice

Why in News?

Recently, **Indian Agriculture Research Institute (IARI)** successfully tested two new dwarf varieties of Kalanamak rice i.e., **Pusa Narendra Kalanamak 1638** and **Pusa Narendra Kalanamak 1652** in Uttar Pradesh that give double the yield.

- This will address the problem of lodging responsible for low yield seen across the traditional variety.



KALANAMAK RICE

What is Kalanamak Rice?

- **About:**
 - **Kalanamak** is a traditional variety of paddy with a **black husk** and a **strong fragrance**.
 - It is considered a '**gift from Lord Buddha**' to the people of the Sravasti when he visited the region after enlightenment.
 - It has been awarded under '**One District One Product**' (ODOP) scheme as an ODOP product of Siddharthnagar which is an aspirational district located in Terai belt of Uttar Pradesh.

- It is **grown in 11 districts of the Terai region** of northeastern Uttar Pradesh and in **Nepal**.
- It is **protected under the Geographical Indication (GI) tag system**.

➤ Farmer's Benefits from Kalanamak Rice:

- **Natural Cultivation:** Kala Namak rice is grown mainly without using fertiliser or pesticide residues, making it perfect for crop production.
- **Cost-effective factor:** Since pesticides and fertilisers are not used, the expense is lowered and the grower saves a lot of money.

➤ Health Benefits of Kalanamak Rice:

- Kala Namak rice acts as an antioxidant like anthocyanin, which assists in the **prevention of cardiovascular disease** and the **advancement of skincare**.
- Kalanamak rice includes a lot of **micronutrients like zinc and iron**. As a result, eating this rice is also said to **protect against illness caused by zinc and iron deficits**.
- It is claimed that eating Kalanamak rice on a regular basis can help **prevent Alzheimer's disease**.
- Kala Namak rice can also help **strengthen, regrow, and galvanise the body**, as well as **help regulate blood pressure, diabetes, and skin damage**.

➤ Issue with the Traditional Variety:

- The problem with the traditional variety of Kalanamak paddy is that **it's tall and prone to lodging**, which badly impacted grain filling and quality.
 - **Lodging** is a condition in which the **top of the plant becomes heavy because of grain**

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formation, the stem becomes weak, and the plant falls on the ground.

Commercial Cultivation of GM Mustard

Why in News?

Recently, the **Genetic Engineering Appraisal Committee (GEAC)** that functions under the Union Ministry of Environment, Forest and Climate Change has approved seed production prior to commercial release of **genetically modified (GM) mustard**.

What are Genetically Modified (GM) Crops?

➤ About:

- GM crops are **derived from plants whose genes are artificially modified**, usually by **inserting genetic material from another organism**, in order to give it new properties, such as **increased yield, tolerance to a herbicide, resistance to disease or drought, or improved nutritional value**.
- Probably the **best-known variety of GM rice is golden rice**.
 - Golden rice involves the insertion of genes from a plant - both daffodils and maize have been used - and a soil bacterium to create a grain that is enriched with Vitamin A.
- **Earlier, India approved** the commercial cultivation of **only one GM crop, Bt cotton**, but GEAC has recommended GM Mustard for commercial use.

➤ Advantages:

- **Increased Yield:** Genetically modified seeds dramatically increase the yield of the plant. This means that with the same plot of land, a farmer can now produce noticeably more crops.
- **Beneficial in Specific Climates:** Genetically modified seeds can also be **produced for specific conditions or climates**. For example, drought-resistant seeds can be used in places with little water to ensure healthy crop growth.

➤ Disadvantages:

- **Manipulation of Seeds Cost:** Only a few companies are in charge of creating and selling modified seeds. With a near monopoly, this means that there are few choices available to those buying seeds.

- **Seeds can't be Replanted:** Genetically modified seeds do not create viable seed offspring by design. This means that every time you want to plant a new crop, you have to go to the company you originally bought the seeds from.
- **Environmental Concern:** They can decrease species diversity. For example, insect-resistant plants might harm insects that are not their intended target and destroy that particular insect species.
- **Ethical Concern:** GM crop is the violation of natural organisms' intrinsic values by mixing among species.
 - There have also been concerns of mixing animal genes in plants.

What is GM Mustard?

○ About:

- **Dhara Mustard Hybrid (DMH-11)** is an indigenously developed transgenic mustard. It is a **genetically modified variant of Herbicide Tolerant (HT) mustard**.
- It contains **two alien genes** ('barnase' and 'barstar') isolated from a soil bacterium called *Bacillus amyloliquefaciens* that enable breeding of high-yielding commercial mustard hybrids.
- It has been developed by the **Centre for Genetic Manipulation of Crop Plants (CGMCP) at Delhi University**.
- In 2017, the GEAC recommended the commercial approval of the HT Mustard crop. However, the Supreme Court stayed its release and asked the central government to seek public opinion.
- **Significance:** India produces only 8.5-9 million tonnes (mt) of edible oil annually while it imports 14-14.5 mt which entailed a record foreign exchange outgo of USD 18.99 billion in the fiscal year ended March 31, 2022. Further, GM mustard would make **India self-reliant in oil production and help in saving forex**.
 - Mustard varieties in India have a narrow genetic base. The barnase-barstar system enables breeding of hybrids from a wider range of mustards, including those of East European origin such as '**Heera**' and '**Donskaja**'.

What is the Status of other GM Crops in India?

➤ BT Cotton:

Note:



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- In order to tackle the bollworm attack that had devastated cotton crops in the past, Bt cotton was introduced which was **jointly developed by the Maharashtra Hybrid Seeds Company (Mahyco) and the US seed company Monsanto**.
- In 2002, the GEAC approved Bt Cotton for commercial cultivation in 6 states such as Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Tamil Nadu. It has to be noted that, Bt cotton is the first and only transgenic crop approved by the GEAC.
- **BT Brinjal:**
 - **Mahyco** jointly developed **Bt Brinjal with the Dharwad University of Agricultural Sciences and the Tamil Nadu Agricultural University**.
 - Even though GEAC 2007 had recommended the commercial release of Bt Brinjal, the initiative was blocked in 2010.

What is Genetic Engineering Appraisal Committee (GEAC)?

- It is responsible for the appraisal of activities involving large-scale use of hazardous microorganisms and recombinants in research and industrial production from the environmental angle.
- The committee is also responsible for the appraisal of proposals relating to the release of genetically engineered (GE) organisms and products into the environment including experimental field trials.
- GEAC is chaired by the Special Secretary/Additional Secretary of MoEF&CC and co-chaired by a representative from the Department of Biotechnology (DBT).

Indian Currency Design Mechanism

Why in News?

Recently, the head of a political party asked the central government to put pictures of Goddess Lakshmi and Lord Ganesh on currency notes in order to bring "prosperity" to the country.

Who is involved in the Design and Issuance of Indian Bank Notes and Coins?

- **About:**

- **The Reserve Bank of India (RBI)** and the **Central Government** decide the **changes in the design and form** of bank notes and coins.
- Any change in design of a currency note has to be **approved by the RBI's Central Board** and the **central government**.
 - **Changes in the design of coins** are the prerogative of the central government.
- **Role of RBI in Issuing Notes:**
 - **Section 22 of The Reserve Bank of India Act, 1934**, gives RBI the **"sole right"** to **issue banknotes** in India.
 - The central bank **internally works out a design**, which is put before the **RBI's Central Board**.
 - **Section 25** states that "the design, form, and material of bank notes shall be such as may be **approved by the Central Government** after consideration of the **recommendations made by the RBI's Central Board**".
 - The **RBI's Department of Currency Management**, currently headed by **Deputy Governor**, has the responsibility of **administering the core function of currency management**.
 - If the design of a currency note has to change, the **Department works on the design and submits it to RBI**, which recommends it to the central government. **The government gives the final approval**.
- **Role of Central Government in minting of coins:**
 - **The Coinage Act, 2011** gives the **central government the power to design and mint coins** in various denominations.
 - The role of the **RBI is limited to the distribution of coins** that are supplied by the central government.
 - The government **decides on the quantity of coins** to be minted on the basis of indents received from the RBI on a yearly basis.
 - Coins are minted in four mints owned by the Government of India in **Mumbai, Hyderabad, Kolkata and Noida**.

What is RBI's Currency Management System?

- **RBI, in consultation with the central Government and other stakeholders**, estimates the quantity of banknotes that are likely to be needed denomination-wise in a year, and **places indents with the various currency printing presses** for their supply.

Note:



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- Two of India's currency note printing presses (**Nasik and Dewas**) are owned by the Government of India; two others (**Mysore and Salboni**) are owned by the RBI through its wholly owned subsidiary, **Bharatiya Reserve Bank Note Mudran Ltd (BRBNML)**.
- Notes that are received back from circulation are examined, after which those fit for circulation are reissued, **while the soiled and mutilated notes are destroyed.**

What are the Types of Notes Issued so far?

- **Ashoka Pillar Banknotes:** The first banknote issued in independent India was the **Re 1 note issued in 1949**. While retaining the existing design, the **new banknotes replaced the portrait of King George with the symbol of the Lion Capital of the Ashoka Pillar** at Sarnath in the watermark window.
- **Mahatma Gandhi (MG) Series, 1996:** All the banknotes of this series bear the **portrait of Mahatma Gandhi** on the obverse (front) side, in place of the symbol of Lion Capital of Ashoka Pillar, which was moved to the left, next to the watermark window. These banknotes **contain both the Mahatma Gandhi watermark as well as Mahatma Gandhi's portrait.**
- **Mahatma Gandhi Series, 2005:** The "MG series 2005" notes were issued in denominations of Rs 10, Rs 20, Rs 50, Rs 100, Rs 500, and Rs 1,000. They contain some additional/ new security features as compared to the 1996 MG series. **The Rs 500 and Rs 1,000 notes of this series were withdrawn w.e.f. the midnight of November 8, 2016.**
- **Mahatma Gandhi (New) Series, 2016:** The "MGNS" notes highlight the **cultural heritage and scientific achievements of the country**. Being of reduced dimensions, these notes are more wallet friendly, and are expected to incur less wear and tear. The colour scheme is sharp and vivid.

Report by RBI on Big Techs

Why in News?

According to a new report by **Reserve Bank of India (RBI)**, **large non-financial technology firms, referred to as "big techs," pose challenges to financial stability** owing to their technological advantages, large user base, wide-spread use by financial institutions and network-effects.

What are the Big Techs?

➤ **About:**

- Big techs include companies such as **Alibaba, Amazon, Facebook, Google, and Tencent.**
- They **usually hold service licenses through subsidiaries or Joint Ventures** with varying levels of ownership control and jurisdictional regulatory advantages.

➤ **Increasing Role of Big Techs:**

- Big techs, given their pervasive **adoption as third-party service providers, generally become the underlying platform** on which a host of services are offered.
 - This **uniquely positions the big techs to easily acquire cross-functional databases** which can be exploited for generating innovative product offerings, making them dominant players in the market.
 - The **pervasiveness of big techs provides them with a large client base** who are entrenched in using their platforms/ products with access to multiple facets of customers' data, generating strong network effects.
 - The **entry of big techs into finance also reflects strong complementarities** between financial services and their core non-financial services.
 - Besides the technological advantages, the **big techs typically also have the financial muscle to withstand the competitive pressures.**
- #### ➤ **Related Steps taken by India:**
- In India, **efforts have been made for local storage of payment data and to bring critical payment intermediaries** into the formal framework.
 - Initiatives are also underway to **increase the payment acceptance infrastructure and create a data protection law.**

What are the Risks associated with the Big Tech Sector in Financial Services?

➤ **Complex Governance Structure:**

- The complex governance structure of big techs **limits the scope for effective oversight and entity-based regulations.**
 - **Due to the adoption of big techs as third-party service providers,** they have become the underlying platform on which a host of services are offered.

Note:



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- **Barriers in Creating Level Playing Field:**
 - Big Techs are a **barrier in creating a level playing field to promote innovation in the fintech space.**
- **Data Privacy Issues:**
 - There is a lack of transparency in how tech companies process user data, which has raised serious and pressing privacy concerns.

What are the Suggestions?

- **Realign Framework to Facilitate a Level Playing Field:**
 - To facilitate fairness in the fintech space, **regulators are realigning their regulatory frameworks** while managing the possible risks posed by bigtechs.
- **Need to Keep up the Pace with Innovations:**
 - With the increasingly complex inter-linkages between financial institutions and tech-companies, the regulatory frameworks **need to keep up the pace with innovations to contain the vulnerabilities** that may arise from the new risk propagation channels.
- **Mindful of the New Linkages:**
 - The regulations in EMDEs (Emerging Markets and Developing Economies) **need to be mindful of the new inter-linkages** that bigtechs might create with the existing financial institutions.

PM Kisan Samman Sammelan

Why in News?

Recently, the Prime Minister of India inaugurated the PM Kisan Samman Sammelan 2022 at Indian Agricultural Research Institute in New Delhi.

What are the Key Highlights of PM Kisan Samman Sammelan?

- PM released the 12th installment of **Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)** funds. Rs 16,000 crores were transferred to over 8.5 crore eligible farmers as part of the scheme.
- PM also inaugurated 600 '**Pradhan Mantri Kisan Samruddhi Kendras**' (PMKSK) under the Ministry of Chemicals & Fertilizers. Under this scheme, more than 3.3 lakh retail fertilizer shops in the country will be converted into PMKSK in a phased manner.
 - These Kendras will cater to several farmer needs like providing agri-inputs (fertilizers, seeds, implements);

testing facilities for soil, seeds, fertilizers; generating awareness among farmers; providing information regarding various government schemes and ensuring regular capacity building of retailers at block/ district level outlets.

- The PM also launched the '**Pradhan Mantri Bhartiya Jan Urvarak Pariyojana**' – **One Nation, One Fertilizer.**
 - Under this scheme, '**Bharat Urea Bags**' are launched. These will help companies market fertilizers under the single brand name "Bharat"
 - An e-magazine on fertilizer, '**Indian Edge**' also launched by the PM. It will provide information on domestic and international fertilizer scenarios, including recent developments, price trends analysis, availability and consumption, success stories of farmers, among others.

What is PM Kisan?

- **About:**
 - It was launched on 1 Nov 2018 to supplement financial needs of land holding farmers.
- **Financial Benefits:**
 - Financial benefit of Rs **6000/- per year in three equal installments**, every four months is transferred into the bank accounts of farmers' families across the country through **Direct Benefit Transfer (DBT) mode.**
- **Scope of the Scheme:**
 - The scheme was initially meant for **Small and Marginal Farmers (SMFs) having landholding upto 2 hectares** but scope of the scheme was **extended to cover all landholding farmers.**
- **Funding and Implementation:**
 - It is a **Central Sector Scheme** with 100% funding from the Government of India.
 - It is being **implemented by the Ministry of Agriculture and Farmers Welfare.**
- **Objectives:**
 - To supplement the financial needs of the Small and Marginal Farmers in procuring various inputs to ensure proper crop health and appropriate yields, commensurate with the anticipated farm income at the end of each crop cycle.
 - To protect them from falling in the clutches of moneylenders for meeting such expenses and ensure their continuance in the farming activities.

Note:

- **PM-KISAN Mobile App:** It was developed and designed by the National Informatics Centre in collaboration with the Ministry of Electronics and Information Technology.
- **Exclusion Criteria:** The following categories of beneficiaries of higher economic status shall not be eligible for benefit under the scheme.
 - All Institutional Land holders.
 - Farmer families which belong to one or more of the following categories:
 - Former and present holders of constitutional posts
 - Former and present Ministers/ State Ministers and former/present Members of Lok Sabha/ Rajya Sabha/ State Legislative Assemblies/ State Legislative Councils, former and present Mayors of Municipal Corporations, former and present Chairpersons of District Panchayats.
 - All serving or retired officers and employees of Central/ State Government Ministries /Offices/ Departments and its field units Central or State PSEs and Attached offices /Autonomous Institutions under Government as well as regular employees of the Local Bodies (Excluding Multi-Tasking Staff /Class IV/Group D employees)
 - All superannuated/retired pensioners whose monthly pension is Rs.10,000/-or more (Excluding Multi-Tasking Staff / Class IV/Group D employees) of above category
 - All Persons who paid Income Tax in last assessment year
 - Professionals like Doctors, Engineers, Lawyers, Chartered Accountants, and Architects registered with Professional bodies and carrying out profession by undertaking practices.

Vision—Developed India: Opportunities and Expectations of MNCs

Why in News?

According to the **EY (Ernst & Young)- Confederation of Indian Industries (CII)** report titled 'Vision—Developed India: Opportunities and Expectations of MNCs', India will attract **FDI (Foreign Direct Investment)** worth USD 475 billion in 5 years.

What are the Findings of the Report?

➤ Overview:

- 71% of **MNCs (Multinational Corporation)** working in India consider the **country an important destination for their global expansion.**
- India has seen a consistent rise in FDI in the last decade, with FY22 receiving USD 84.8 billion, despite the impact of the pandemic and geopolitical developments.
- India is seen as an **emerging manufacturing hub in global value chains**, as a growing consumer market and as a hub for ongoing digital transformation.
- Over 60% of MNCs stated improvement in the business environment in **the last three years.**
- Against the backdrop of growth challenges MNCs consider India **an attractive investment destination and are planning expansion.**

➤ Cause of Optimism:

- The commitments for investments in the infrastructure sector offer assurance about **India's serious aspirations for providing best-in-class infrastructure and new opportunities for investments.**
- Optimism on India's growth is led by **strong momentum in domestic consumption, a growing services sector, digitalization, and the government's focus on manufacturing and infrastructure.**
 - The estimated real growth in consumption is the **third highest behind only the US and China**, while the fast-expanding digital economy is expected to reach USD 1 trillion by 2025.

➤ Suggestions:

- It is high time India took the leap to the next level of economic development, including early closure of free trade agreements, continued reforms to enhance ease of doing business, faster implementation of infra projects and goods and services tax reforms.

What is Foreign Direct Investment?

➤ About:

- A FDI is an **investment made by a firm or individual in one country into business interests** located in another country.
 - FDI lets an **investor purchase a direct business interest** in a foreign country.
- Investors can make **FDI in a number of ways.**

Note:



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- Some common ones include establishing a subsidiary in another country, acquiring or merging with an existing foreign company, or starting a joint venture partnership with a foreign company.
- Apart from being a **critical driver of economic growth, FDI has been a major non-debt financial resource** for the economic development of India.
- It is different from **Foreign Portfolio Investment** where the foreign entity merely buys stocks and bonds of a company.
 - FPI does **not provide the investor with control over the business.**

➤ Routes of FDI:

- Automatic Route:
 - In this, the foreign entity does not require the prior approval of the government or the **RBI (Reserve Bank of India).**
 - In India FDI up to 100% is allowed in non-critical sectors through the automatic route, not requiring security clearance from the Ministry of Home Affairs (MHA).
 - Prior government approval or security clearance from MHA is required for investments in sensitive sectors such as defence, media, telecommunication, satellites, private security agencies, civil aviation and mining, besides any investment from Pakistan and Bangladesh.
- Government Route:
 - In this, the foreign entity has to take the approval of the government.
 - The Foreign Investment Facilitation Portal (FIFP)** facilitates the single window clearance of applications which are through approval route. It is administered by the **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry.

What is the Status of FDI Inflows in India?

- In 2021, FDI inflows **increased from USD 74,391 million in FY 19-20 to USD 81,973 million in FY 20-21.**
- Top 5 FDI Sourcing Nation:**
 - Singapore:** 27.01%
 - USA:** 17.94%
 - Mauritius:** 15.98%

- Netherland:** 7.86%
- Switzerland:** 7.31%

➤ Top Sectors:

- Computer Software & Hardware:** 24.60%
- Services Sector** (Fin., Banking, Insurance, Non-Fin/ Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis, Other): 12.13%
- Automobile Industry:** 11.89%
- Trading:** 7.72%
- Construction (Infrastructure) Activities:** 5.52%

➤ Top Destinations:

- Karnataka:** 37.55%
- Maharashtra:** 26.26%
- Delhi:** 13.93%
- Tamil Nadu:** 5.10%
- Haryana:** 4.76%

- FDI Equity inflow in **Manufacturing Sectors** have increased by **76% in FY 2021-22** (USD 21.34 billion) compared to previous FY 2020-21 (USD 12.09 billion).

What has the Government done to boost FDI?

- New FDI norms**
- Make in India**
- Atmanirbhar Bharat**
- India's footing in global supply chains**
- National technical Textile Mission**
- Production Linked Incentive Scheme**
- Pradhan Mantri Kisan SAMPADA Yojana**

75 New Digital Banking Units in India

Why in News?

Recently, the Prime Minister of India has dedicated **75 Digital Banking Units (DBU)** across **75 districts to the nation.**

- As part of the **Union budget speech for 2022-23**, the Finance Minister announced setting up the **75 DBUs in 75 districts** to commemorate our country's **75 years of independence.**

What are Digital Banking Units?

- About:**

Note:

- A Digital Banking Unit is a **specialised fixed point business unit or hub**, set up by **scheduled commercial banks**, housing certain minimum digital infrastructure for **delivering digital banking products and services** as well as **servicing existing financial products and services digitally** in self-service mode at any time.
- The DBUs are being set up with the objective to **ensure the benefits of digital banking reach every nook and corner** of the country and will cover all the States and Union territories.
- **Benefits:**
 - The DBUs will enable those who **do not have Information and Communications Technology (ICT)** infrastructure to **access banking services digitally**.
 - They will also assist those **who are not tech savvy** to adopt **digital banking**.
- **DBU Services:**
 - **Services being offered through DBU include banking facilities like** opening of savings account, balance-check, print passbook, transfer of funds, investment in fixed deposits, loan applications, stop-payment instructions for cheques issued, application for credit / debit cards, view statement of account, pay taxes, pay bills, make nominations, etc.
 - The DBUs will also facilitate onboarding to **Government credit link schemes** through the **Jan Samarth portal** and end-to-end digital processing of small ticket MSME/retail loans.
- **Difference between DBU & Traditional Banks:**
 - DBU will provide banking services including **cash deposit & withdrawal 24 x 7**.
 - Services of DBU shall be **provided digitally**.
 - People **not having connectivity or computing devices** can do banking transactions from DBU in a paperless mode.
 - Bank staff will be available to **help and guide users for banking transactions** in assisted mode.
 - DBU will help in **providing digital financial literacy and create awareness** for adopting digital banking.
- **Difference between the Digital Banks and DBUs:**
 - **Balance Sheet/Legal Personality:**
 - DBUs do not have legal personality and are **not licensed under Banking Regulation Act, 1949**.
 - Legally, they are equivalent to “banking outlets” i.e., branches.

- Digital Banks will **have a balance sheet and legal personality** & are proposed to be duly licensed banks under **Banking Regulation Act, 1949**.
- **Level of Innovation/Competition:**
 - DBUs **improve existing channel architecture** by offering regulatory recognition to digital channels. However, they are **silent on competition**.
 - The DBU guidelines expressly state that **only existing commercial banks may establish DBUs**.
 - In contrast, a licensing and regulatory framework for Digital banks as proposed here, is **more enabling along competition/innovation dimensions**.

What are other Initiatives for Financial Inclusion?

- **Pradhan Mantri Jan Dhan Accounts**
- **Unified Payments Interface (UPI)**
- **Direct Bank Transfer**
- **Fintech**
- **India Stack**

RTI Exemption for Banks

Why in News?

Recently, the Supreme agreed to examine a plea by various Banks for the exemption from **RTI (Right to Information)**.

- Various Public and Private Sector banks want to be exempted from disclosing an array of financial information relating to **Non-Performing Assets (NPAs)**, **losses from trading operations**, **show-cause notices**, and **penalties**.

What is the Issue?

- The legal battle for the disclosure of inspection reports and defaulters list started when **RTI activist Jayantilal Mistry sought information under RTI Act, 2005** from the RBI about a Gujarat-based cooperative bank in 2010. The matter went up to the SC as Mistry's appeals were not **entertained by several layers of the RTI process**.
- In 2015, the Supreme Court had come down on the RBI for trying to **keep the inspection reports and defaulters list confidential**, paving the way for the public disclosure of such reports of the RBI, much against the wishes of the banking sector.

Note:

- The SC had said the **RBI has no legal duty to maximize the benefit of any public sector or private sector bank**, and thus there is no relationship of 'trust' between them. It added that the RBI was duty-bound to uphold the public interest by revealing these details under RTI.
- The central bank then allowed **making such reports public following the Supreme Court order**.
- Now the SC says, the 2015 judgment did not take into consideration **the aspect of balancing the right to information and the right to privacy**, and thus, the court is duty-bound **to give banks an opportunity to argue their case on merits**.

What is the Argument Provided by Banks?

- As banks are involved in dealing in money, they fear any adverse remarks — especially from the regulator RBI — will **affect their performance and keep customers away**.
- **Banks are driven by the "trust and faith" of their clients** that should not be made public.
- Banks also argued that **privacy is a fundamental right**, and therefore, should not be violated by **making clients' information public**.

What is the RTI Act, 2005?

- **About:**
 - Right to Information Act or RTI is a central legislation, which enables the citizens to procure information from a public authority.
 - It provides **the mechanism for obtaining information under the control of public authority** so that transparency and accountability can be increased.
- **Sec 8 of the RTI ACT:** Sec 8 deals with **exemption from disclosure of information**.
 - Information which would prejudicially affect the sovereignty and integrity of India
 - Information which has been expressly forbidden to be published by any court of law
 - Information, the disclosure of which would cause a breach of privilege of Parliament or the State Legislature.
 - Information including commercial confidence, trade secrets or intellectual property, the disclosure of which would harm the competitive position of a third party, unless the competent authority is satisfied that larger public interest warrants the disclosure of such information

- Information available to a person in his fiduciary relationship, unless the competent authority is satisfied that the larger public interest warrants the disclosure of such information.

Organic Fertilisers

Why in News?

India's growth story on the path of economic reforms has transformed the country into one of the fastest-growing economies in the world. With the right policy interventions, India can become the hub of **Organic Fertilizers** production.

What is Organic Fertilizer?

- **About:**
 - An organic fertilizer is a fertilizer that is **derived from organic sources, including organic compost, cattle manures**, poultry droppings and domestic sewage.
 - Organic fertiliser can be categorised into two segments, according to government rules: **Biofertilizer and Organic Manure**.
- **Bio-fertiliser:**
 - Bio-fertilisers are composed of living microorganisms attached to solid or liquid carriers and are useful for cultivable land, as these micro-organisms help in increasing the productivity of soil and / or crops.
 - Examples: Rhizobium, Azospirillum, Azotobacter, Phosphobacteria, Blue Green Algae (BGA), Mycorrhiza, Azolla.
- **Organic manure:**
 - Organic manure, on the other hand, refers to partially decomposed organic matter like digestate from a biogas plant, compost and vermicompost, which provides nutrients to the soil / crops and improves yield.

What is the Potential of Organic Fertilisers in India?

- **Utilizing Municipal Solid Waste:**
 - India produces more than 150,000 tonnes of municipal solid waste (MSW).
 - Considering collection efficiency of 80% and organic part of MSW to be 50%, total organic waste generated per day in India comes to **around 65,000 tonnes per day**.

Note:

- Even if half of this is diverted to the biogas industry, the **government can leverage this by reducing in import of fossils and fertilisers.**
- **Utilizing Biogas Effluents:**
 - There is also great value in the organic fertiliser also known as **digestate, which is the biogas plant's effluent.**
 - Biogas can be utilised for heating, electricity and even vehicular purposes (after upgrading), whereas **digestate can help realise the vision to have a second green revolution.**
- **Increase Soil Fertility:**
 - Digestate can provide organic carbon to the continuously depleting soil, apart from its standard nutrition value.
 - In India at present, bio-fertiliser production is just over 110,000 tonnes (carrier-based 79,000 tonnes and liquid-based 30,000 tonnes) and 34 million tonnes of organic manure, composed of farmyard manure, city compost and vermicompost, among others.
- **Popularity of Organic Farming:**
 - The popularity of organic farming has grown in the domestic market in recent years.
 - The market size for Indian organic packaged food is expected to grow at a rate of 17% and cross Rs 871 million by 2021.
 - The significant rise of this sector is linked to growing awareness about the harmful effects of synthetic fertiliser on soil, rising health concerns, expanding urban population base and an increased consumer expenditure on food goods.

What are the Related Initiatives?

- **Sustainable Alternative Towards Affordable Transportation (SATAT) scheme.**
- **Paramparagat Krishi Vikas Yojana**
- **Sub-mission on AgroForestry**
- **National Mission on Sustainable Agriculture**
- **Rashtriya Krishi Vikas Yojana**

Enhanced Access & Service Excellence

Why in News?

As a part of the **Enhanced Access & Service Excellence (EASE)** reforms, the government is planning to leverage

Regional Rural Banks (RRBs) to expand their portfolio by adding new segments.

What are the Key Points?

- The initiatives and targets will be part of the **EASE reforms** being undertaken by the Centre.
- Rural banks will be asked to look beyond crop loans and also provide loans for tractors, small businesses in rural areas and education and housing loans too in rural areas.
- The Center is working on a proposal to raise the guarantee limit for education loans from Rs 7.5 lakh to Rs 10 lakh to ensure banks restart lending to the education sector.
- The government's plan is to **continue to improve the profitability of RRBs.**
 - After two consecutive years of losses during the **Covid-19 pandemic** period, RRBs reported a consolidated net profit of Rs 1,682 crore in FY21, with 30 out of 43 RRBs reporting net profits.

What is the Significance?

- It will help RRBs expand their business by **leveraging their huge rural network** and local understanding, and also **enhance credit access to rural consumers for purposes such as education, housing and micro businesses.**
- Asking RRBs to lend towards education, housing and small businesses would also help **ease credit availability to the sectors.**
- RRBs will be guided towards becoming **more competitive and business friendly** – making them customer friendly is top on the agenda.
- The EASE programme for RRBs will entail focus on **digitising operations and connecting RRBs with each other.**

What is EASE Reform?

- It was launched in **January 2018** jointly by the government and PSBs.
- It was commissioned through **Indian Banks' Association** and authored by Boston Consulting Group.
- It aims to foster new-age reforms in PSBs to improve profitability, asset quality, customer service and digital capabilities.
- Various Stages under **EASE Reforms Agenda:**
 - **EASE 1.0:** The EASE 1.0 report showed significant improvement in PSB performance in resolution of **Non Performing Assets (NPAs)** transparently.

Note:



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- **EASE 2.0:** EASE 2.0 was built on the foundation of EASE 1.0 and introduced new reform Action Points across six themes to make reforms journey irreversible, strengthen processes and systems, and drive outcomes. The six themes are:
 - Responsible Banking;
 - Customer Responsiveness;
 - Credit Off-take,
 - PSBs as UdyamiMitra (SIDBI portal for credit management of **MSMEs**);
 - Financial Inclusion & Digitalisation;
 - Governance and Human Resource (HR).
- **Ease 3.0:** It seeks to enhance ease of banking in all customer experiences, using technology viz.
 - Dial-a-loan and PSBloansin59 minutes.com.
 - Partnerships with FinTechs and E-commerce companies,
 - Credit@click,
 - Tech-enabled agriculture lending,
 - EASE Banking Outlets etc.
- **EASE 4.0:** It commits PSBs to tech-enabled, simplified and collaborative banking to further the agenda of **customer-centric digital transformation**. Following major themes were proposed under this:
 - 24x7 Banking
 - Focus on North-East
 - Bad Bank.
 - Raising Funds Outside the Banking Sector
 - **Leveraging Fintech Sector.**
- **EASE 5.0:**
 - PSBs will continue to invest in new-age capabilities and deepen the ongoing reforms to respond to **evolving customer needs, changing competition and the technology environment**.
 - Focuses on Digital customer experience, and integrated and inclusive banking, with emphasis on supporting small businesses and agriculture.
 - The initiatives will be across diverse themes: **business growth, profitability, risk, customer service, operations, and capability building.**

What are the Regional Rural Banks?

➤ About:

- **RRBs are financial institutions** which ensure adequate credit for agriculture and other rural sectors.

- Regional Rural Banks were set up on the basis of the **recommendations of the Narasimham Working Group (1975)**, and after the legislation of the **Regional Rural Banks Act, 1976**.
- The first Regional Rural Bank "**Prathama Grameen Bank**" was set up on **2nd October, 1975**.
- The RRBs are required to provide 75% of their total credit as **priority sector lending**.
- **Stakeholders:**
 - The equity of a regional rural bank is held by the Central Government, concerned State Government and the Sponsor Bank in the proportion of 50:15:35.
- **Objectives:**
 - To provide **credit and other facilities to the small and marginal farmers**, agricultural labourers, artisans and small entrepreneurs in rural areas.
 - To check the outflow of rural deposits to urban areas and reduce regional imbalances and increase rural employment generation.

Internationalisation of Rupee

Why in News?

A deputy governor of the **Reserve Bank of India (RBI)** recently emphasized the advantages and risks of the internationalization of the rupee.

What is Internationalisation of Rupee?

- Internationalisation of the rupee is a **process that involves increasing use of the local currency in cross-border transactions**.
- It involves **promoting the rupee for import and export trade** and then other **current account transactions** followed by its use in **capital account transactions**.
 - As far as the rupee is concerned, it is fully convertible in the current account, but partially in capital account.
 - **Current and Capital account are the two components of Balance of payments**. While the current account deals mainly with the import and export of goods and services, the capital account is made up of the cross-border movement of capital by way of investments and loans.

Why is the Need for Internationalisation of Rupee?

- The dollar accounts for **88.3% of global foreign exchange market** turnover, followed by the euro, Japanese Yen

Note:

and Pound Sterling; the rupee accounts for a mere 1.7%, underlining the need for pushing the currency much farther to get an international tag.

- In the case of the dollar, which is an international currency, the 'exorbitant' privileges include immunity from Balance of Payments crises as the USA can pay for its external deficits with its own currency.

What are the Various Advantages of Internationalisation of the Rupee?

- Use of Rupee in cross-border transactions mitigates **currency risk for Indian business**. Protection from currency volatility not only reduces cost of doing business, it also enables better growth of business, improving the chances for Indian business to grow globally.
- It **reduces the need for holding foreign exchange reserves**. While reserves help manage exchange rate volatility and project external stability, they impose a cost on the economy.
- Reducing dependence on foreign currency makes India **less vulnerable to external shocks**. For example, during phases of monetary tightening in US and strengthening dollar, excessive foreign currency liabilities of domestic business results in a de facto domestic tightening. Reduced exposure to currency risk would substantially mitigate the pain of reversal of capital flows.
- As the use of Rupee becomes significant, the **bargaining power of Indian business would improve** adding weight to the Indian economy, enhancing India's global stature and respect.

What are the Challenges in Internationalisation of Rupee?

- India is a **capital deficient country**, and hence needs **foreign capital to fund its growth**. If a substantial portion of its trade is in Rupee, non-residents would hold Rupee balances in India which would be used to acquire Indian assets. Large holdings of such financial assets could heighten vulnerability to external shocks, managing which would necessitate more effective policy tools.
- A reduced role for convertible currencies in external transactions could lead to reduced reserve accretion. At the same time, however, the need for reserves would **also reduce to the extent the trade deficit is funded in Rupees**.
- Non-resident holdings of Rupees could exacerbate pass-through of external stimulus to domestic financial

markets, increasing volatility. For instance, a global risk-off phase could lead **non-residents to convert their Rupee holdings** and move out of India.

What are the Steps taken for the Internationalisation of the Rupee?

- In July 2022, the RBI introduced a **mechanism to facilitate international trade in rupees**.
- Enabling **external commercial borrowings** in Rupees (especially **Masala Bonds**).
- The Asian Clearing Union is also exploring a scheme of using domestic currencies for settlement. An arrangement, bilateral or among trading blocs, which offers importers of each country the choice to pay in domestic currency is likely to be favoured by all countries, and therefore, is worth exploring.

Prevention of Money Laundering Act

Why in News?

Recently, the **Supreme Court** has rejected a plea by a political leader challenging his arrest by the **Enforcement Directorate (ED)** on **Money Laundering** charges.

What is Money Laundering?

- **About:**
 - Money laundering is the **process of making large amounts of money generated by criminal activity**, such as drug trafficking or terrorist funding, appear to have come from a legitimate source.
 - Criminal activities like illegal arms sales, smuggling, drug trafficking and prostitution rings, insider trading, bribery and **computer fraud schemes produce large profits**.
 - Thereby it creates the **incentive for money launderer to "legitimize" the ill-gotten gains** through money laundering.
 - The money generated is called **'dirty money'** and **money laundering is the process of conversion of 'dirty money', to make it appear as 'legitimate' money**.
- **Stages:**
 - **Placement:** The first stage is when the crime money is injected into the formal financial system.
 - **Layering:** In the second stage, money injected into the system is layered and spread over various

Note:



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transactions with a view to obfuscate the tainted origin of the money.

- **Integration:** In the third and the final stage, money enters the financial system in such a way that original association with the crime is sought to be wiped out and the money can then be used by the offender as clean money.

What is the Prevention of Money Laundering Act (PMLA), 2002?

➤ **Background:**

- The PMLA was enacted in response to India's global commitment (Vienna Convention) to combat the menace of money laundering. These include:
 - **United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances 1988**
 - **Basle Statement of Principles, 1989**
 - **Forty Recommendations of the Financial Action Task Force on Money Laundering, 1990**
 - **Political Declaration and Global Program of Action adopted by the United Nations General Assembly in 1990.**

➤ **About:**

- It is a criminal law enacted to prevent money laundering and to provide for confiscation of property derived from, or involved in, money-laundering and related matters.
- It forms the core of the legal framework put in place by India to combat Money Laundering.
- The provisions of this act are applicable to all financial institutions, banks (Including RBI), mutual funds, insurance companies, and their financial intermediaries.

➤ **Recent Amendments:**

- **Clarification about the Position of Proceeds of Crime:** Proceeds of the Crime not only includes the property derived from scheduled offence but would also include any other property derived or obtained indulging into any criminal activity related or similar to the scheduled offence.
- **Money Laundering Redefined:** Money Laundering was not an independent crime rather depended on another crime, known as the predicate offence or scheduled offence.
 - The amendment seeks to treat money laundering as a stand-alone crime.

- Under Section 3 of PMLA, the person shall be accused of money laundering if in any manner that person is directly or indirectly involved in the proceeds of the crime.

- Concealment
- Possession
- Acquisition
- Use or projecting as untainted property
- Claiming as untainted property

- **Continuing Nature of Offence:** This amendment further mentioned that the person will be considered to be involved in the offence of money laundering till the time that person is getting the fruits of activities related to money laundering as this offence is of a continuing nature.

What is the Enforcement Directorate?

➤ **History:**

- The Directorate of Enforcement or the ED is a multi-disciplinary organization mandated with investigation of economic crimes and violations of **foreign exchange laws**.
- The origin of this Directorate goes back to 1st May, 1956, when an 'Enforcement Unit' was formed in the Department of Economic Affairs for handling Exchange Control Laws violations under Foreign Exchange Regulation Act, 1947 (FERA '47).
- With the onset of the process of **economic liberalization, FERA, 1973**, which was a regulatory law, was repealed and in its place, **Foreign Exchange Management Act, 1999 (FEMA)** came into operation.
- Recently, with the increase in the number of cases relating to economic offenders taking shelter in foreign countries, the Government has passed the **Fugitive Economic Offenders Act, 2018 (FEOA)** and ED is entrusted with its enforcement.

➤ **Functions:**

- **The PMLA, 2002:**
 - ED has been given the responsibility to enforce the provisions of the PMLA by conducting investigation to trace the assets derived from proceeds of crime, to provisionally attach the property and to ensure prosecution of the offenders and confiscation of the property by the Special court.
- **The FEMA, 1999:**
 - ED has been given the responsibility to conduct investigation into suspected contraventions

Note:



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of foreign exchange laws and regulations, to adjudicate and impose penalties on those adjudged to have contravened the law.

○ The FEOA, 2018:

- It is a law whereby the Directorate is mandated to attach the properties of the fugitive economic offenders who have escaped from India warranting arrest and provide for the confiscation of their properties to the Central Government.

○ Sponsoring agency under COFEPOSA:

- Under the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA), Directorate is empowered to sponsor cases of preventive detention with regard to contraventions of FEMA.

Liquidity Adjustment Facility

Why in News?

The **Reserve Bank of India (RBI)** injected Rs 72,860.7 crore of liquidity into the banking system in October 2022, the highest since April 2019 after liquidity condition tightened on higher demand for credit during the festival season.

- It is the central bank's intervention in the foreign exchange market to curb volatility in the rupee.

What is Liquidity?

- Liquidity in the banking system refers to **readily available cash** that banks need to meet short-term business and financial needs.
- On a given day, if the banking system is a net borrower from the RBI under **Liquidity Adjustment Facility (LAF)**, the system liquidity is said to be in deficit. If the banking system is a net lender to the RBI, the liquidity is said to be in surplus.

What is Liquidity Adjustment Facility (LAF)?

- A LAF is a **monetary policy tool** used in India by the RBI through which it injects or absorbs liquidity into or from the banking system.
- It was introduced as a part of the outcome of the **Narasimham Committee on Banking Sector Reforms of 1998**.

- LAF has two components- **repo (repurchase agreement) and reverse repo**. When banks need liquidity to meet its daily requirement, they **borrow from RBI through repo**. The rate at which they borrow fund is called the **repo rate**. When banks are flush with fund, they park with RBI through the **reverse repo mechanism at reverse repo rate**.
- It can **manage inflation in the economy** by increasing and reducing the money supply.
- LAF is **used to aid banks in resolving any short-term cash shortages** during periods of economic instability or from any other form of stress caused by forces beyond their control.
- Various banks use eligible securities as collateral through a **repo agreement** and use the funds to alleviate their short-term requirements, thus remaining stable.
- The facilities are implemented on a day-to-day basis as banks and other financial institutions ensure they have enough capital in the overnight market.
- The transacting of liquidity adjustment facilities **takes place via an auction** at a set time of the day.

What is Monetary Policy?

- Monetary policy refers to the **policy of the central bank with regard** to the use of monetary instruments under its control to achieve the goals specified in the Act.
- The primary objective of the RBI's monetary policy is to maintain price stability while keeping in mind the objective of growth.
 - Price stability is a necessary precondition to sustainable growth.
- The amended RBI Act, 1934 also provides for the **inflation target (4% +-2%)** to be set by the Government of India, in consultation with the Reserve Bank, once in every five years.
- Tools under the Monetary Policy:
 - **Cash Reserve Ratio (CRR).**
 - **Statutory Liquidity Ratio (SLR).**
 - **Bank Rate.**
 - **Standing Deposit Facility (SDF).**
 - **Marginal Standing Facility (MSF).**
 - **Cash Reserve Ratio (CRR).**



Note:



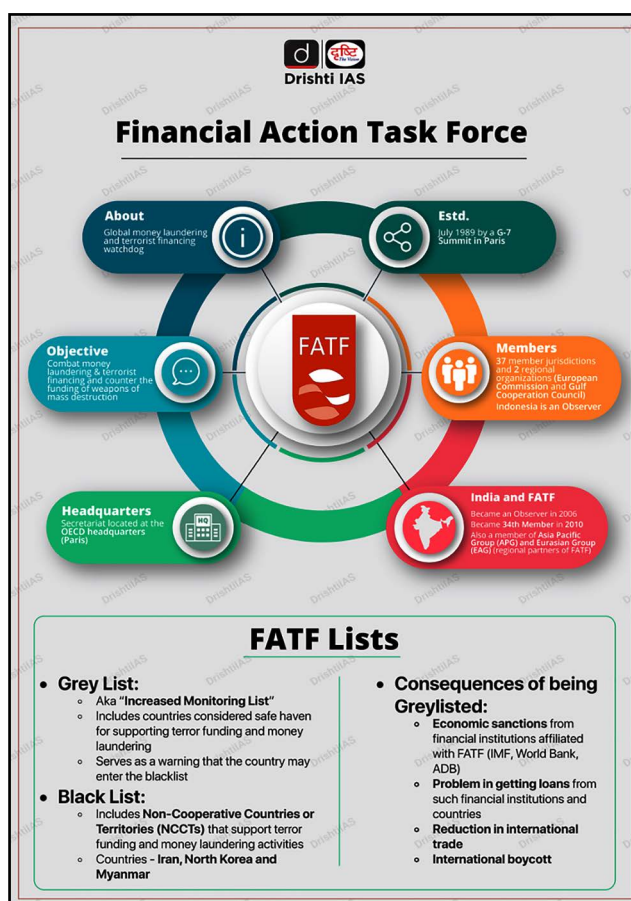
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International Relations

Highlights

- FATF
- Ethiopia
- India-UK Relation
- UN's 77th Anniversary
- India-Africa Defence Dialogue
- Interpol General Assembly Meeting
- Indo-Pacific
- UNSC 1267 Committee
- India-Russia Trade
- 7th ASEAN-India Ministerial Meeting
- Pakistan Removed from FATF Grey List
- Israel-Lebanon: Maritime Border Deal

FATF



Ethiopia

Why in News?

An Ethiopian government team and Tigray forces are going to have peace talks in South Africa.

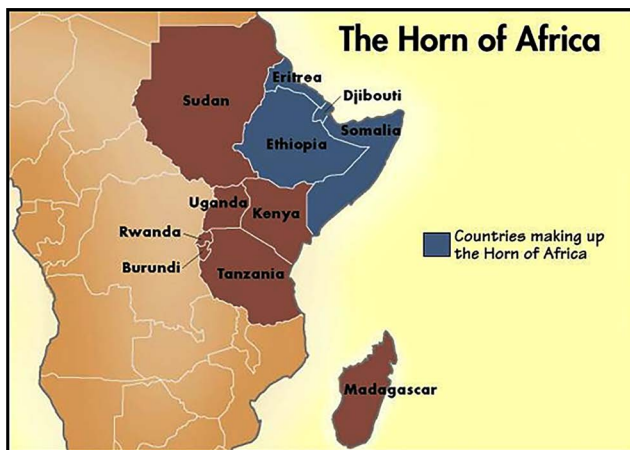
What Paved the Way to the Peace Talks?

- The spectrum of political, economic, and security problems that confronted Ethiopia and Eritrea paved the way for a **strategy that essentially incorporated reconciliation and democratisation**, social and economic development, and, importantly, ties with the western world.
- This is the first formal Peace talks between the two led by the **African Union** and is happening at a time when Ethiopian forces and allies have made some gains in Ethiopia's northern Tigray region.
- Tigray was a prominent force in the **country's ruling coalition until Ethiopia's current leader** and Nobel Peace laureate (2019) Abiy Ahmed became the Prime Minister in 2018.

Where is Ethiopia?

- It is a landlocked country located in the Horn of Africa, officially known as the Federal **Democratic Republic of Ethiopia**.
- The country lies completely **within the tropical latitudes and is relatively compact**, with similar **north-south and east-west dimensions**.
- The capital is Addis Ababa.
- Ethiopia is one of the world's oldest countries, its territorial **extent having varied over the millennia of its existence**.
- It is the tenth-largest country in Africa in terms of area.
- Ethiopia is located from Sudan in the southeast, Eritrea to the south, Djibouti and Somalia to the west, Kenya to the north, and South Sudan to the east.
- It is the most **populous landlocked country in the world**.

Note:



What is the Conflict in Ethiopia?

➤ Background:

- Ethiopia was an imperial state that gradually weakened with the **emergence of regional and religious rivalries**.
 - Currently Ethiopia has more than 70 ethnic groups. It has Oromo 34.5%, Amhara 26.91%, Somali 6.20%, Tigre 6.07%.
- A major insurgency followed in the 1970s — in Tigray, where the Meles Zenawi-led **Tigray People's Liberation Front (TPLF)**, rebelled against the military government and its policies.
 - It was the backing of the then Soviet Union and allies that propped up both the armed forces and the Mengistu government, but this support began to dissipate in the **1980s**, influencing the course of conflicts with the Eritreans and Tigray.

➤ Separation of Eritrea:

- Eritrea, formerly part of Ethiopia, **separated from Ethiopia in 1991** and a majority of Eritrea was in the hands of the Eritrean People's Liberation Front (EPLF), while in Ethiopia it was the TPLF.
- The war between 1998 and 2000 and the border in **Eritrea and Ethiopia remained tense until 2018**.

➤ Ethnic Rivalries:

- Abi Ahmed was elected to the post of Prime Minister in **2018** and signed a peace deal to end the border dispute with Eritrea.
- After the implementation of this peace agreement, Abi Ahmad was **awarded the 2019 Nobel Peace Prize**.

- But then the conflict started after Ahmed, who belongs to the Oroma community, was accused **by local leaders of the Tigray community** that the community was being harassed by **military officials and bureaucrats**.
- The original inhabitants of Tigray are considered to be the fighting community of Ethiopia and 60% of senior military positions are **dominated by the Tigray community**.

➤ Civil War:

- Along with this, various international agencies have accused **Abi Ahmad of imposing an internet shutdown to curtail press freedom in Ethiopia** and curbing personal rights.
- As a result of Abi Ahmad's policies, the dissatisfaction of the Tigray community increased and **there was a situation of civil war**.
- Missiles were fired by the **Tigray army in the neighboring country of Eritrea, Asmara**, after which the Federal Government of Ethiopia declared an **armed struggle against the Tigray Army (Tigray People's Liberation Front)**.

What are the Implications of this Conflict?

➤ Impact on Neighboring Countries:

- Ethiopia is the region of the Horn of Africa which has countries like **Eritrea, Djibouti, and Sudan in addition to Ethiopia**. The launch of missiles at the capital of Eritrea by the Tigray community of Ethiopia also makes **other countries suspicious**.

➤ Hydro Project on the Blue Nile:

- Tigrayan tensions are also linked to the mega hydroproject on the Blue Nile, the 6,450 MW Grand Ethiopian Renaissance Dam, which will be Africa's largest hydroelectric facility.
- It is a few hundred kilometres away from the Tigrayan border and upstream and east of the border with Sudan.
- There is a threat of regional disquiet with Sudan and Egypt which depend on the Nile and fear restrictions to water use.

➤ Global Impact:

- Global organizations are also affected by this conflict. Recently the President of the World Health Organization has condemned the conflict in Ethiopia.

Note:

- The conflict with Tigray worries the world as it could spill beyond the borders and ignite a crisis in **north-east Africa**.

➤ **Impact on India:**

- India considers Africa as an important part of its diplomacy at this time. Various types of welfare programs are being run by India in African countries. Educational work and industrial work are done by Indians in Ethiopia.

How have been the India-Ethiopia Relations?

➤ **Ethiopia is one of the largest recipients of long-term concessional credit** from India in Africa.

- Lines of Credit worth more than USD1 billion have been sanctioned to Ethiopia for sectors such as rural electrification, sugar industry and railways.

➤ **Tele-Education and Tele-Medicine services under the Pan African e-network Project** was launched in Addis Ababa in July 2007.

- The Tele-Education project has been replicated by the Ethiopian side and linkages established between the Addis Ababa University and the Indian Institutes of Technology at Delhi and Kanpur.

➤ **Bilateral trade** between Ethiopia and India stood at **USD 1.28 billion in 2018-19**, out of which Indian exports to Ethiopia were USD 1.23 billion and imports were USD 55.01 million.

- There are more than 586 Indian companies in Ethiopia employing more than 55,000 people with licensed investment of over USD 4 billion.
- About 58.7% of Indian investments are in the manufacturing sector, followed by agriculture (15.6%).

➤ Indian Mission has been celebrating the **International Day of Yoga** in Addis Ababa. Mission held Gandhi@150 celebrations in Addis Ababa (Oct 2020).

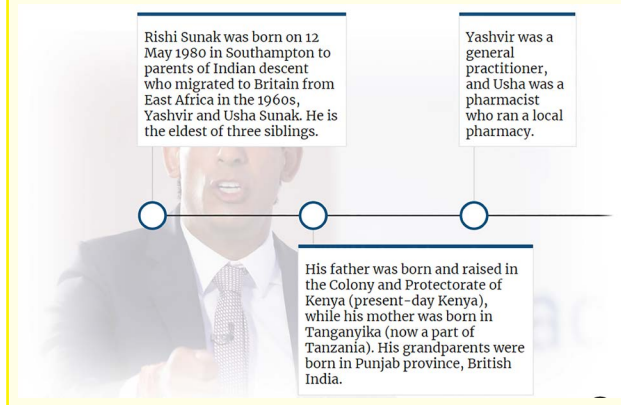
India-UK Relation

Why in News?

Recently, Rishi Sunak took charge as the 57th Prime Minister of the United Kingdom.

- He is the **country's third PM in 50 days after first Boris Johnson** and then Liz Truss was forced from office by a rebellion within the ruling Conservative Party.

Who is Rishi Sunak?



What are the Opportunities for India-UK ties under PM Rishi Sunak?

- It is an **opportunity for India and the U.K to work closely together on global issues** and **implement the roadmap 2030 for bilateral relations** with the elevation of a person of Indian origin as prime minister of the U.K.
- His vision for India-U.K. bilateral ties **has gone beyond the opportunity for the U.K. to sell things in India**, wanting Britain to also “learn from India”.
- A **Free Trade Agreement** between India and the UK is expected to enhance economic growth and prosperity by: increasing import and export flows; increasing investment flows (both outward and inward); enhancing productivity through a more efficient allocation of resources; and greater openness to international competition.

Why is the Indo-UK Partnership Important?

- **For UK:** India is a **key strategic partner for the UK in the Indo-Pacific** both in terms of market share and defence, as was underscored by the signing of the Defence and International Security Partnership between India and the UK in 2015.
 - For Britain, a successful conclusion of an FTA with India would provide a boost to its ‘Global Britain’ ambitions as the UK has sought to expand its markets beyond Europe since **Brexit**.
 - **Britain has been trying to seize opportunities in the growing economies** of the Indo-Pacific to cement its place on the global stage as a serious global actor.

Note:

- The British would be better able to achieve this goal with good bilateral relations with India.
- **For India: The UK is a regional power in the Indo-Pacific as it possesses naval facilities** in Oman, Singapore, Bahrain, Kenya, and British Indian Ocean Territory.
 - The UK has also confirmed USD 70 million of British International Investment funding to support the usage of renewable energy in India, which will help in building renewable energy infrastructure and developing solar power in the region.
 - **India has sought easy market access for Indian fisheries, pharma,** and agricultural products besides duty concession for labour-intensive exports.

What are the Current Major Bilateral Issues between the Both Countries?

- **Extradition of Indian Economic Offenders:**
 - The issue is **the extradition of Indian economic offenders** who are presently seeking shelter in Britain and using the legal system to their advantage.
 - Offenders like Vijay Mallya, Nirav Modi and others have long taken shelter under the British system despite clear cut Indian cases against them which warrant extradition.
- **Umbilical link between the British and Pakistani Deep State:**
 - This **legacy of the long-gone British Raj in the sub-continent** allows Britain to box in a higher weight category with the help of Pakistan on imperial follies of Jammu and Kashmir.
 - The presence of a large Muslim community from the sub-continent in the UK, particularly from areas like Mirpur of Pakistan-occupied Kashmir adds to dissonance apart from the trap of vote bank politics.
- **Non-Acceptance of White Britain:**
 - The unacceptance of white Britain particularly its media of the rise of India as a global power is another issue.
 - India under the current Prime Minister has **left behind Britain as the fifth largest economy in GDP terms** and is on the way up.
 - There is **no difference between a modern and confident Indian and a British colonial Indian** in terms of skin colour or the imperial legacy of the British Empire.

What is the Distinction between the British and Indian Parliamentary System?

- The parliamentary system of government in India is **largely based on the British parliamentary system.** However, it never became a replica of the British system and differs in the following respects:
 - India has a **republican system in place of the British monarchical system.** In other words, the Head of the State in India (that is, President) is elected, while the **Head of the State in Britain (that is, King or Queen) enjoys a hereditary position.**
 - The **British system is based on the doctrine of the sovereignty of Parliament,** while the Parliament is not supreme in India and enjoys limited and restricted powers due to a written Constitution, federal system, judicial review and fundamental rights.
 - In Britain, the **prime minister should be a member of the Lower House** (House of Commons) of Parliament. In India, the **prime minister may be a member of any of the two Houses of Parliament.**
 - Usually, the **members of Parliament alone are appointed as ministers in Britain.** In India, a person who is not a member of Parliament can also be appointed as minister, but for a maximum period of six months.
 - Britain has the **system of legal responsibility of the minister** while India has no such system. Unlike in Britain, the ministers in India are not required to countersign the official acts of the Head of the State.
 - **'Shadow cabinet' is a unique institution of the British cabinet system.** It is formed by the opposition party to balance the ruling cabinet and to prepare its members for future ministerial office. There is no such institution in India.

UN's 77th Anniversary

Why in News?

Recently, the World has celebrated the 77th anniversary of the **United Nations(UN)** on 24th October 2022.

What is the UN?

- **About:**
 - The United Nations (UN) is an **international organization founded in 1945.** It is currently made up of **193 Member States.**

Note:

- Its mission and work are guided by the purposes and principles contained in its **founding Charter and implemented by its various organs** and specialised agencies.
- Its activities include maintaining **international peace and security, protecting human rights, delivering humanitarian aid**, promoting sustainable development and upholding international law.
- **History:**
 - In 1899, the **International Peace Conference was held in The Hague** to elaborate instruments for settling crises peacefully, preventing wars and codifying rules of warfare.
 - It adopted the **Convention for the Pacific Settlement of International Disputes** and established the **Permanent Court of Arbitration**, which began work in 1902. This court was the forerunner of the **UN International Court of Justice**.
 - The forerunner of the United Nations was the League of Nations, an organization conceived in circumstances of the **First World War, and established in 1919 under the Treaty of Versailles** "to promote international cooperation and to achieve peace and security."
 - United Nations Conference on International Organization (1945).
 - Conference held in San Francisco (USA), was attended by representatives of 50 countries and signed the United Nations Charter.
 - **The UN Charter of 1945** is the foundational treaty of the United Nations, as an intergovernmental organization.
- **Components:** All the 6 were established in 1945 when the UN was founded.
 - **General Assembly**
 - **Security Council**
 - **Economic and Social Council**
 - **Trusteeship Council**
 - **International Court of Justice**
 - **UN Secretariat.**
- **Funds and Programmes:**
 - **United Nations Children's Fund (UNICEF)**
 - **United Nations Population Fund (UNFPA)**
 - **United Nations Development Programme (UNDP)**

- **United Nations Environment Programme (UNEP)**
- **United Nations Human Settlements Programme (UN-Habitat)**
- **World Food Programme (WFP).**
- **Specialized Agencies:**
 - **Food and Agriculture Organization (FAO)**
 - **International Civil Aviation Organization (ICAO)**
 - **International Fund for Agricultural Development (IFAD)**
 - **International Labour Organization (ILO)**
 - **IMF**
 - **World Bank**
 - **International Maritime Organization (IMO).**
 - **International Telecommunication Union (ITU)**
 - **United Nations Educational, Scientific and Cultural Organization (UNESCO)**
 - **United Nations Industrial Development Organization (UNIDO)**
 - **World Health Organization (WHO).**
 - **UNCTAD.**
 - **United Nations Office on Drugs and Crime (UNODC)**
 - **United Nations High Commissioner for Refugees (UNHCR)**
 - **United Nations Economic and Social Commission for Asia and the Pacific (ESCAP).**

What are the UN's Contributions so Far?

- **Increment in the UN membership:**
 - Post- 1960's decolonisation, the membership of the UN expanded from about 50 members to double.
- **Decolonisation:**
 - It was the UN which played the lead role in the 1960 decolonisation and helped around 80 colonies in gaining their freedom.
- **Involvement with Civil Society:**
 - The UN is no more an organisation of nations only, more and more UN bodies have begun engaging with the people within the nations, experts, intellectuals and media with time.
- **Better Sustenance:**
 - The UN has successfully sustained itself till now, as compared to the League of Nations, which is an achievement.
- **Peacekeeping:**
 - The UN has successfully prevented World War- III.

Note:

What are the UN's Major Setbacks?

- **Arm Races and Cold War:**
 - Although, the WW-III has been successfully prevented till date, violence, arm races, nuclear races and cold wars still occur among nations.
- **Power Suppressing Principles:**
 - The world body still continues to see a tussle between 'principle' and 'power'.
 - While the hopes of a peaceful and just world are represented by the UN, the most powerful states are privileged by granting them commanding heights over international politics via the undemocratic instruments of veto power and permanent seats in the **UN Security Council (UNSC)**.
- **Not a Multipolar Organisation:**
 - The UN has been unable to present itself as a multipolar and multilateral organisation.
 - At the time of formation, the UN had 5 permanent members with a total of 51 members, presently, it has 193 members but permanent members in the UN General Assembly are still 5.
- **Laggard in Holistic Growth:**
 - The organisation had not been able to cope up with the increasing globalisation.
 - The UN has been a laggard in overall development; no institutional arrangement is there to deal in particular with Pandemics or new technologies such as **Artificial Intelligence**.

What is the Significance of India at UN?

- **India and the UN:**
 - India is **one of the founding members** of the UN.
 - Since its independence and even before that, India has been an active participant in all initiatives undertaken by the UN like Millennium Development Goals, **Sustainable development goals** and various UN summits, including on climate change.
- **Maintaining peace:**
 - As far as the peacekeeping ambit of the UN is concerned, India has performed quite well in maintaining peaceful and friendly relations with most of the nations.
- **India and UNSC:**
 - India has been elected as a **non-permanent member of the UNSC** for two years in January 2021.

- The non-permanent membership of India can be taken as an opportunity to convince the like-minded nations for fighting international terrorism.
- Moreover, India should also focus upon sitting upon the apex body in future; becoming a permanent member of the UN.

➤ **Raising concern over need of reforms:**

- India has realised the urgent need of reforms in the UN specially at the UNSC and has raised concerns over the issue.
 - Developing nations, including India, now play a larger role in both the international economy and politics. But these changes are not reflected in the UNSC, where all critical decisions are still being taken by the veto-wielding permanent members of the Security Council.

India-Africa Defence Dialogue

Why in News?

The **2nd India-Africa Defence Dialogue (IADD)** was held on the sidelines of **DefExpo 2022** in Gandhinagar, Gujarat.

What is India-Africa Defence Dialogue?

- **Theme:**
 - Adopting Strategy for Synergizing and Strengthening Defence and Security Cooperation.
- **Outcome Document:**
 - The Gandhinagar Declaration was adopted as an outcome document of IADD 2022.
 - It proposes to enhance cooperation **in the field of training in all areas of mutual interest by:**
 - increasing training slots and deputation of training teams,
 - empowerment and capability building of the defence forces of Africa,
 - participation in exercises, and
 - providing humanitarian assistance during natural disasters.
 - A volume on India–Africa Defence cooperation was also released.
- **India–Africa Security Fellowship Programme:**

Note:

- IADD also encouraged further research of security issues through offer of fellowships to experts from African countries.
- This will be done under the India–Africa Security Fellowship Programme.

How has India's Relations with Africa been?

➤ **Loan and Assistance:**

- India has extended concessional loans of over **USD 12.3 billion to Africa**.
- In addition, India has granted USD 700 millions of grant assistance.

➤ **Projects:**

- India has completed **197 projects so far, 65 more are** currently under execution, and 81 are at the pre-execution stage.
- In Gambia, India has constructed the National Assembly building and undertaken projects in water supply, **agriculture and food processing**.
- In Zambia, India is involved in an important **hydro-power project**, in the erection of pre-fabricated health posts and in the supply of vehicles.
- In **Mauritius**, recent notable projects include the metro express, the new Supreme Court and social housing.
- In **Namibia**, a new Centre of Excellence in IT has just become operational.
- Whereas in South Sudan, India is focusing on training and education.

➤ **Covid - 19 Assistance:**

- 32 African countries received 150 tonnes of medical assistance from India.
 - Many of them also utilized **'Made in India' vaccines** received directly or otherwise from India.
 - At international forums, India has worked together to press for equitable and affordable access to vaccines, **including through a TRIPS waiver**.

➤ **Human Resource:**

- India had announced 50,000 scholarships during **India–Africa Forum Summit (IAFS)-III in 2015**, out of which more than 32,000 scholarship slots have already been utilized.
- To provide high quality **virtual education** and medical services to partners, the **e-VidyaBharti and**

e-ArogyaBharti networks were launched in 2019 for **tele-education** and **tele-medicine** respectively.

➤ **Help & Relief Assistance:**

- Operation Sahayata to **assist cyclone** IDAI-hit Mozambique in 2019, **Operation Vanilla** to provide relief to flood victims in Madagascar in January 2020, the support to Mauritius in containing **the oil spill** due to the grounding of ship Wakashio.

➤ **Energy:**

- **The International Solar Alliance** is a notable platform that has promoted the rapid development of **clean energy technologies**.
- This has been followed by the **'One Sun One World One Grid' initiative** to further promote solar and renewable energy.
- In recent years, clean and green energy have been increasingly prominent in India's development programmes in Africa as also in third country collaborations.

➤ **Trade and Economics:**

- India's bilateral trade with Africa has now reached USD 89.5 billion in 2021-22 compared with USD 56 bn the previous year.
- With cumulative investments at USD 73.9 billion from 1996-2021, India is among the top five investors in Africa.
- Through the Duty-Free Tariff Preference (DFTP) Scheme that extends duty free access to 98.2% of India's total tariff lines, India has opened its market to African countries.
- So far 33 Least Developed Countries (LDC) African nations have been entitled to get benefits under this scheme.

Interpol General Assembly Meeting

Why in News?

The **General Assembly of the International Criminal Police Organisation (Interpol)** is meeting in **Delhi** for four days from October 18, 2022.

- This is the second time since 1997 the 195 member-strong body is holding such a large conference in India.

Note:

What is the Interpol?

- It was set up in 1923, as a **secure information-sharing platform** that facilitates criminal investigation of police forces **across the globe** through collection and dissemination of information received from various police forces.
 - It is headquartered in **Lyon, France**.
- It **keeps track of the movements of criminals and those under the police radar** in various regions and tips off police forces which had either sought the Interpol's assistance or which in its opinion will benefit from the particulars available with it.
- It aims **to promote the widest-possible mutual assistance between criminal police forces**.

How is the Interpol Organised?

- The **head of Interpol is the President who is elected by the General Assembly**. He comes from one of the member-nations and **holds office for four years**.
- The **day-to-day activities are overseen by a full-time Secretary General** elected by the General Assembly, who **holds office for five years**.
- The General Assembly lays down the policy **for execution by its Secretariat** which has several **specialised directorates for cybercrime, terrorism, drug trafficking, financial crime, environmental crime, human trafficking, etc.** Every member-country is the Interpol's face in that country.
- All contact of a country's law enforcement agency with Interpol is through the highest investigating body of the land.
 - The **Central Bureau of Investigation (CBI)** assumes **this role in India** with one of its senior officers heading its exclusive Interwing (the National Central Bureaus) for collation of **information and liaison with the world body**.

What are Interpol Notices?

- **About:** Its notices are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.
 - Notices are issued by the General Secretariat at the request of a member country's INTERPOL National Central Bureau and are made available for all our member countries to consult in our Notices database.

➤ Different Notices:



- Notices can **also be used by the United Nations, International Criminal Tribunals and the International Criminal Court** to seek persons wanted for committing crimes within their jurisdiction, notably genocide, war crimes, and crimes against humanity.

What are Interpol's Future Challenges?

- The **rising spectre of transnational, cyber and organised crime requires** a globally **coordinated law enforcement response**.
- Interpol has a legacy of trust and reliability. It **needs to acquire powers of sanction against a country which refuses to cooperate in implementing a red notice**. It is however highly unlikely that member-nations will ever agree to dilute their sovereignty and invest the Interpol with such authority.

Indo-Pacific

Why in News?

Emphasising sustainable use of ocean resources for economic growth while preserving the ecosystem's health, the Defence Minister of India during the **18th Heads of Asian Coast Guard Agencies Meeting (HACGAM)** in New Delhi said India stands for open and rule-based maritime borders in Indo-Pacific.

What is the Heads of Asian Coast Guard Agencies Meeting (HACGAM)?

- It is an apex level forum facilitating the congregation of all the major Coast Guard Agencies of the Asian region, it was established in 2004.

Note:

- It is a **multilateral forum of 23 countries** including Australia, Bahrain, Bangladesh, Brunei, Cambodia, China, France, India, Indonesia, Japan, South Korea, Lao PDR, Malaysia, Maldives, Myanmar, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Turkiye, Vietnam and one Region i.e., Hong Kong (China).
- The **Indian Coast Guard (ICG)** is hosting the 18th HACGAM in coordination with the HACGAM Secretariat.
- A total of 55 representatives from 18 countries and two International Organisations — **Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia Information Sharing Centre (ReCAAP ISC)** and **United Nations Office on Drugs and Crime - Global Maritime Crime Programme (UNODC-GMCP)** are participating in the meeting.

What is the Indo-Pacific Region?

- **About:**
 - Indo-Pacific is a recent concept. It was about a decade ago that the world started talking about the Indo-Pacific; its rise has been quite significant.
 - One of the reasons behind the popularity of this term is an understanding that the **Indian Ocean and the Pacific are a linked strategic theater**.
 - Also, the centre of gravity has shifted to Asia. The reason being maritime routes, the Indian Ocean and the Pacific provide the sea lanes. The **majority of the world's trade passes through these oceans**.
- **Significance:**
 - The Indo-Pacific region is one of the **most populous and economically active regions of the world** which includes four continents: Asia, Africa, Australia and America.
 - The dynamism and vitality of the region is self-evident, **60% of the world's population and 2/3rd of the global economic output** makes this region a global economic centre.
 - The region is also a **great source and destination for Foreign Direct Investment**. Many of the world's critical and large supply chains have an Indo-Pacific connection.
 - There are **vast reserves of marine resources in the Indian and Pacific Oceans combined**, including

offshore hydrocarbons, methane hydrates, seabed minerals and **rare earth metals**.

- Sizable coastlines and **Exclusive Economic Zones (EEZs)** provide littoral countries with competitive capabilities for exploiting these resources.
- In turn, a number of the world's largest economies are located in the Indo-Pacific region, including India, U.S.A, China, Japan, Australia.

What is India's Perspective of the Indo-Pacific?

- **Cooperate with Others for Security Architecture:** A lot of India's special partners, the US, Australia, Japan and Indonesia want India's presence in the **South China Sea**, East China Sea, basically to counter China.
 - India, however, seeks to cooperate for an architecture for peace and security in the region. The common prosperity and security require the countries to evolve, through dialogue, a common rules-based order for the region.
- **Indo-Pacific Extends from Africa to America:** For India, Indo-Pacific stands for a free, open, inclusive region. It includes all nations in the geography and also others who have a stake in it. In its geographical dimension, India considers the area from the shores of Africa to the shores of America.
- **Equal Share in Trade and Investment:** India supports rule-based, open, balanced and stable trade environment in the Indo-Pacific Region, which lifts up all nations on the tide of trade and investment. This is the same as what the country expects from the **Regional Comprehensive Economic Partnership (RCEP)**.
- **Unified ASEAN:** Unlike China, India seeks a unified ASEAN, not a divided one. China tries to play off some ASEAN members against others, thereby in a way executing 'divide and rule' conquest strategy.
- **Work in Collaboration with China:** India does not comply with the US version of Indo-Pacific, that seeks to contain Chinese dominance. India is rather looking for the ways through which it can work together with China.
- **Against Dominance of a Single Player:** India is **looking for democratising the region**. Earlier, the region used to be almost like an American lake. However, there exists a fear that the region will become Chinese lake now. India doesn't want hegemony of any player in the region.

Note:

What are the Current Challenges in the Indo-Pacific?

- **Theatre of Geo-Strategic Competition:** Indo-Pacific is the principal theatre of geo-strategic competition between different multilateral institutions like **QUAD** and **Shanghai Cooperation Organisation**.
- **China's Militarization Move:** China has been a challenge to India's interests and stability in the Indian Ocean. India's neighbours are receiving military and infrastructural assistance from China, including submarines for Myanmar, frigates for Sri Lanka, and its **overseas military base in Djibouti (Horn of Africa)**.
 - Also, China has a hold over **Hambantota port (Sri Lanka)**, which is just a few hundred miles off the shores of India.
- **Hotspot For Non-Traditional Issues:** The region's vastness makes it difficult to assess and address multiple risks, including incidents of piracy, **trafficking** and **terrorism**.
 - The Indo-Pacific region is facing serious challenges related to geographical and ecological stability due to **climate change** and the three consecutive **La Niña events** that are causing **cyclones** and **tsunamis**.
 - Also, illegal, unregulated and unreported (IUU) fishing and **marine pollution** is hampering the aquatic life of this region.
- **India's Limited Naval Capacity:** **Indian Navy** has limited resources and capacity to strengthen its efforts because of limited allocation of Indian military budget. Also, lack of overseas military bases creates a fundamental logistical challenge for India to maintain its presence in the Indo-Pacific.

UNSC 1267 Committee

Why in News?

Recently, China placed a "hold" on two joint India-US proposals, to designate Lashkar-e-Taiba (LeT) top leaders at the **United Nations Security Council's (UNSC) 1267** list of terrorists affiliated to Al Qaeda and ISIS.

What is the UNSC 1267 Committee?

- It was **first set up in 1999** (updated in 2011 and 2015), and strengthened after the September, 2001 attacks.

- It is now known as the Da'esh and Al Qaeda Sanctions Committee.
- It comprises all permanent and non-permanent members of the **United Nations Security Council (UNSC)**.
- The 1267 list of terrorists is a global list, with a UNSC stamp. It is full of Pakistani nationals and residents.
- It is **one of the most important and active UN subsidiary bodies** working on efforts to combat **terrorism**, particularly in relation to Al Qaeda and the Islamic State group.
- It **discusses UN efforts to limit the movement of terrorists**, especially those related to travel bans, the freezing of assets and arms embargoes for terrorism.

What is the Procedure of Listing?

- Any member state can **submit a proposal for listing an individual, group, or entity**.
- The proposal **must include acts or activities indicating the proposed individual/group/entity** had participated "in the financing, planning, facilitating, preparing, or perpetrating of acts or activities" linked to "ISIL (Da'esh), Al-Qaida or any cell, affiliate, splinter group or derivative thereof".
- Decisions on listing and de-listing are adopted by **consensus**. The proposal is sent to all the members, and if no member objects within five working days, the proposal is adopted.
 - An "objection" means curtains for the proposal.
- **Any member of the Committee may also put a "technical hold"** on the proposal and ask for more information from the proposing member state. During this time, other members may also place their own holds.
- The matter remains on the "pending" list of the Committee until such time as the member state that has placed the hold decides to turn its decision into an "objection", or until all those who have placed holds remove them within a timeframe laid down by the Committee.
- Pending issues must be resolved in six months, but the member state that has placed the hold may ask for an additional three months. At the end of this period, if an objection is not placed, the matter is considered approved.

Note:



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India-Russia Trade

Why in News?

Recently, the Ministry of Commerce and Industry has released data showing that India's bilateral trade with **Russia** has soared to an all-time high of **USD 18,229.03 million in just five months (April-August)** of FY 2022-23.



What are the Findings?

➤ Overview:

- The **total annual bilateral trade between the two countries** stood at USD 13,124.68 million in 2021-22, and USD 8,141.26 million in 2020-21.
 - Pre-Covid, it was USD 10,110.68 million in 2019-20, USD 8,229.91 million in 2018-19, and USD 10,686.85 million in 2017-18.
- Russia has now become **India's seventh biggest trading partner** — up from its **25th** position last year.

- The US, China, UAE, Saudi Arabia, Iraq and Indonesia were the six countries which recorded higher volumes of trade with India during the first five months of 2022-23.

- Of the total USD 18,229.03, India's imports from Russia accounted for USD 17,236.29 million, while India's exports to Moscow were only worth USD 992.73 million, leaving a **negative trade balance of USD 16,243.56 million**.
- An analysis of the data shows that 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.

➤ Drivers:

- It is mainly due to a **sudden jump in imports from Russia, mainly oil and fertilisers**, which began to surge earlier in 2022.
 - There was an over 500% increase in three months — 561.1% in June, 577.63% in July and 642.68% in August — as compared to the same months of the previous year.
- Petroleum oil and other fuel items (mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes) **accounted for 84% of India's total imports** from Russia.
- Fertilizers were second, fertilisers and fuel together **account for over 91% of the total imports** from Russia this year.

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:

Note:

- In 2019, Russia signed the **Executive Order on awarding PM Narendra Modi Russia's highest state decoration** – The order of St Andrew the Apostle. The order was presented to PM for his distinguished contribution to the development of a privileged strategic partnership between Russia and India and friendly ties between the Russian and Indian peoples.
- 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.
- **Trade Relations:**
 - The two countries intend to increase bilateral investment to USD 50 billion and bilateral trade to USD 30 billion by 2025.
- **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
 - Ilyushin/HAL Tactical Transport Aircraft
 - KA-226T twin-engine utility helicopters
 - some frigates
 - The military hardware purchased/leased by India from Russia includes:
 - **S-400 Triumph**
 - **Kamov Ka-226 200 to be made in India under the Make in India initiative**
 - **T-90S Bhishma**
 - **INS Vikramaditya aircraft carrier programme.**
- **Nuclear Relations:**
 - 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.

What is the Significance of Russia for India?

- **Balancing China:**
 - The Chinese aggression in the border areas of eastern Ladakh, **brought India-China relations to an**

inflection point, but also demonstrated that Russia can contribute to defusing tensions with China.

- Russia organized **a trilateral meeting among the foreign ministers of Russia, India, and China** following deadly clashes in the **Galwan Valley** in the disputed territory of Ladakh.
- **Emerging New Sectors of Economic Engagement:**
 - Apart from traditional areas of cooperation such as weapons, **hydrocarbons, nuclear energy, and diamonds**, new sectors of economic engagement are likely to emerge — mining, agro-industrial, and high technology, including robotics, **nanotech, and biotech.**
 - India's footprint in the Russian Far East and in the Arctic is set to expand. Connectivity projects may get a boost too.
- **Combating Terrorism:**
 - India and Russia are working to close the gap on Afghanistan and are calling for early finalization of the **Comprehensive Convention on International Terrorism.**
- **Support At Multilateral Forums:**
 - Additionally, Russia supports India's candidacy for permanent membership of a reformed **United Nations Security Council** and of the Nuclear Suppliers Group.
- **Russia's Military Exports:**
 - Russia has been one of the largest arms exporters to India. Even as Russia's share in India's arms imports fell by over 50% in the last five-year period compared to the previous five years (2011–2015).
 - In the last 20 years, India imported arms and weapons worth USD 35 billion from Russia, according to the Stockholm International Peace Research Institute which tracks global arms trade.

7th ASEAN-India Ministerial Meeting

Why in News?

Recently, the **7th ASEAN-India Ministerial Meeting (AIMMAF)** on Agriculture and Forestry was held virtually.

What are the Highlights of the Meeting?

- **India's Vision of keeping ASEAN:**

Note:

- India **reiterated its vision of keeping Association of Southeast Asian Nations (ASEAN)** at the center of **India's Act East Policy**.
- It also **emphasized mutually close regional cooperation with ASEAN to ensure sustainable and inclusive growth for agricultural development in the region.**
- **Steps towards Millets Production:**
 - Referring to the importance of millet (nutritional-cereals) as a nutritious food and the **international nutritional-cereal year 2023**, India **urged the ASEAN member countries to support the efforts of India in increasing the production**, processing, value addition and consumption of millets.
 - **India will promote nutritious cereal products for the health and nutrition** of the people.
 - Nutritious cereals help in the creation of nutrients with low resource requirements and more efficient agri-food systems.
- **Implementation of Various Programs:**
 - The progress in **implementation of various programs and activities under the Medium Term Action Plan of ASEAN-India Cooperation (Year 2021-2025)** was reviewed.
- **Cooperation in Agriculture:**
 - The **commitment to ASEAN-India cooperation in agriculture** and forestry was reaffirmed.
- **Covid-19 Pandemic:**
 - In order to **mitigate the unprecedented impact of the Covid-19 pandemic** by ensuring a seamless flow of safe and nutritious agricultural products to ASEAN and India, **it is necessary to take continuous measures under ASEAN-India cooperation** for the implementation of post-pandemic recovery.
 - India ensured the **commitment to enhance India's cooperation with ASEAN in food security**, nutrition, **climate change** adaptation, digital farming, nature-friendly agriculture, food processing, value chain, agricultural marketing and capacity building.

What is the Association of Southeast Asian Nations?

- **About:**
 - It is a **regional grouping that promotes economic, political, and security cooperation.**
 - It was **established in August 1967 in Bangkok, Thailand** with the signing of the ASEAN Declaration

(Bangkok Declaration) by the founding fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.

- Its **chairmanship rotates annually**, based on the alphabetical order of the English names of Member States.
- ASEAN countries have a total population of 650 million people and a combined **Gross Domestic Product (GDP)** of USD 2.8 trillion.
- Commodity trade between India and ASEAN region has reached 98.39 billion in the period April 2021- February 2022. India's main trading ties are with Indonesia, Singapore, Malaysia, Vietnam and Thailand.
- **Members:**
 - ASEAN brings together ten Southeast Asian states – Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam – into one organisation.



Pakistan Removed from FATF Grey List

Why in News?

Recently, the **Financial Action Task Force (FATF)**, the international watchdog on terror financing and money laundering, has **removed Pakistan from the list of countries under "increased monitoring" (Grey List).**

- India's other neighbour on the grey list, **Myanmar**, was moved to the **"black list"** due to actions by the military leadership after the **2021 coup**.

Note:

What is the FATF?

- **About:**
 - FATF is the **global money laundering and terrorist financing watchdog**. It also aims to counter the financing of proliferation of **weapons of mass destruction**.
 - It was set up in 1989 out of a **G-7** meeting of developed nations in Paris.
 - Its **Secretariat** is located at the **Organisation for Economic Cooperation and Development (OECD)** headquarters in Paris.
- **Members:**
 - As of today, it is a 39-member body with 37 countries and two regional organisations: the **European Commission**, and the **Gulf Cooperation Council**.
 - Indonesia is the only observer country of FATF.
 - India joined with **'observer' status in 2006** and **became a full member of FATF in 2010**.
 - India is also a member of its regional partners, the **Asia Pacific Group (APG)** and the **Eurasian Group (EAG)**.
- **Greylisting and Blacklisting Countries:**
 - The **FATF Plenary** (decision-making body of the FATF) meets tri-annually - in February, June and October, to take stock of **"Mutual Evaluation Reports" (MERs)** of the countries it reviews.
 - If a country appears to have major deficiencies in its **AML/CFT regime**, it is put on a list of "jurisdictions under increased monitoring" - **"grey list"** and if it fails to address FATF concerns, it is put on a "high-risk jurisdictions" list- **"black list"**.
 - AML/CFT refers to **"Anti-Money Laundering/ Combating the Financing of Terrorism"**.
 - The Grey List includes countries that are considered safe haven for supporting terror funding and money laundering. It **serves as a warning that the country may enter the blacklist**.
 - The Black List includes **Non-Cooperative Countries or Territories (NCCTs)** that support terror funding and money laundering activities. As of now, **Iran, North Korea and Myanmar** are the three black listed countries.
 - The enlisted countries are subjected to **increased financial strictures**, thus making it **difficult for them to procure loans** from the financial institutions affiliated to FATF (as observers) such as the **IMF, World Bank** etc.

What are the Key Points

about Pak's Removal from the Grey List?

- **FATF's Stand:** The FATF lauded **"Pakistan's significant progress"** saying that the country had completed two action plans comprising a 34-point tasklist in the period since 2018.
 - Pakistan has been **removed from the list after four years**. It was first put on the list in **2008**, removed in 2009 and before adding it again in **2018**, it remained under increased monitoring from **2012 to 2015**.
- **India's Response:** India has protested Pakistan's lack of action against cross-border terror groups responsible for attacks on India, however, it **agreed to the decision to take Pakistan off the list**, as the latter had submitted **"documentary evidence"** of its actions against designated terrorists.
 - India believes that Pakistan must continue to take **"credible, verifiable, irreversible and sustainable"** action against terror groups emanating from territories under its control.

What are the Implications

of Removing Pakistan from the List?

- **For Pakistan:** Being removed from the grey list, **Pakistan has essentially received a reputational boost** and a clean bill of health from the international community on terrorist financing.
 - Considering the current situation of the country's economy, it is essentially in **desperate need of investments** from other countries. Removal from the grey list will definitely do the deed in this context.
- **For India:** While four years of greylisting has scaled-down the cross-border terror, the occasional incidents of terrorists infiltration and the regular sightings of drones bearing weapon-payloads along the border suggest that Pakistan's **terrorism infrastructure directed against India is presently in a recessed mode but far from being dismantled comprehensively**.
 - India will have to continue mustering all available instruments and options to **deny Pakistan operating space to wield the terror-weapon**.
 - India's interests lie in playing the long game in these diplomatic battles with the goal of making the region more stable and secure.

Note:



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Israel-Lebanon: Maritime Border Deal

Why in News?

Recently, Israel and Lebanon signed a U.S.-brokered Maritime Border Deal which paves the way for lucrative **offshore gas extraction** by the neighbors that remain technically at war.



What is the Deal?

➤ Background:

- Lebanon and Israel have been **officially at war since Israel's creation in 1948** and both countries **claim some 860 square kilometers (330 square miles) of the Mediterranean Sea**.
- There have been decade old tensions between Israel and Lebanon's competing claims over offshore gas fields in the region, which contains part of the **Karish gas field and Qana, a prospective gas field**.
 - The Karish gas field, being developed by Israel, came under threat from **Hezbollah, Lebanon's powerful political and militant group backed by Iran**.

- The two countries **declared overlapping boundaries in 2011 in the Mediterranean Sea**.
- Since both countries have been technically at war, the **United Nations was asked to mediate**.
 - The issue gained significance **after Israel discovered two gas fields off its coast a decade ago**, which can help turn it into an energy exporter.

➤ About:

- It resolves a territorial dispute in the eastern Mediterranean Sea, in an area that **Lebanon wants to explore for natural gas**.
- The gas field is located on the **maritime boundary between the two countries** and this agreement would allow **both countries to get royalties from the gas**.
- Under the deal, Israel receives **full rights to explore the Karish field**.
- Lebanon receives full rights in the **nearby Qana field, but it agreed to allow Israel a share of the royalties**.
- It sets a border between Lebanese and Israeli waters for the first time, largely along a **demarcation referred to as Line 23**.
- The agreement does not **touch on the shared land border between Israel and Lebanon**, which is still disputed.
 - This border is also called the **Blue Line, a boundary that was drawn up by the UN after Israel withdrew from southern Lebanon in 2000**.

➤ Significance:

- The agreement is also expected to avert the **immediate threat of conflict between Israel and Hezbollah militants in Lebanon**.
- The agreement will create **new sources of energy and income for both countries**, particularly important for Lebanon, which is facing a **crippling energy and financial crises**.
- It can provide Europe with a **potential new source of gas amid energy shortages** caused by the **Russian invasion of Ukraine**.

■ ■ ■

Note:

Social Issues

Highlights

- World Tuberculosis Report 2022: WHO
- Global Multidimensional Poverty Index (MPI) 2022
- Polio Eradication
- World Food Day
- Women Representation in Parliament
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
- Pay Parity in Cricket

World Tuberculosis Report 2022: WHO

Why in News?

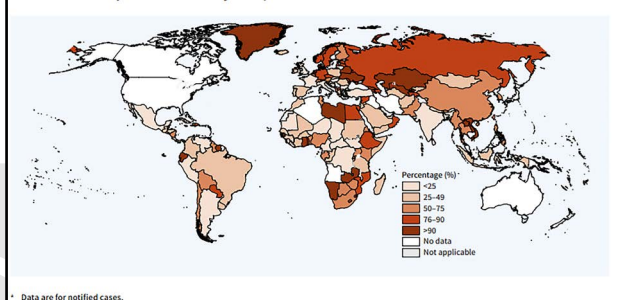
The **World Health Organisation (WHO)** recently released the **World Tuberculosis Report 2022** noting the impact of **Covid-19 pandemic** on the diagnosis, treatment and burden of disease for **Tuberculosis (TB)** all over the world.

- The 2022 report features data on trends of disease and the response to the epidemic from 215 countries and areas, including **all 194 WHO member states**.

What are the Key Findings of the Report?

- **Diagnosis and Mortality Globally:**
 - Around **10.6 million people across the world were diagnosed with TB** in 2021, an **increase of 4.5%** from 2020, while **1.6 million patients died of the disease**.
 - Of the total TB deaths, 187,000 patients were also positive for **HIV (human immunodeficiency virus)**.
 - Nearly 82% of global TB deaths among HIV-negative people occurred in the **African and South-East Asia regions**.
 - The reported number of people newly diagnosed with TB fell from 7.1 million in 2019 to 5.8 million in 2020.
 - There was a **partial recovery to 6.4 million in 2021**, but this was still well below pre-pandemic levels.
- **India and TB:**
 - With 28% cases, India was among the eight countries **accounting for more than two-third (68.3%) of the total TB patients' count**.

Percentage of people newly diagnosed with TB who were initially tested with a WHO-recommended rapid test at country level,* 2021



- The other countries were **Indonesia** (9.2% cases), **China** (7.4%), the **Philippines** (7%), **Pakistan** (5.8%), **Nigeria** (4.4%), **Bangladesh** (3.6%) and the **Democratic Republic of the Congo** (2.9%).
- India **accounted for 36% of the global TB related deaths** among HIV negative people.
- India was among the three countries (along with Indonesia and the Philippines) that **accounted for most of the reduction in 2020** (67% of the global) and made partial recoveries in 2021.
- **India's Stand on the Report:** India has **performed far better on major metrics** as compared to other countries over time.
 - **India's TB incidence for the year 2021 is 210 per 100,000 population** – compared to the baseline year of 2015 (which was **256 per 100,000 population**).
 - There has been an **18% decline** (7 percentage points); better than the **global average of 11%** placing India at the 36th position in terms of incidence rates.
- **Major Challenges to TB Elimination:**
 - **Rise in Drug-Resistant TB:**

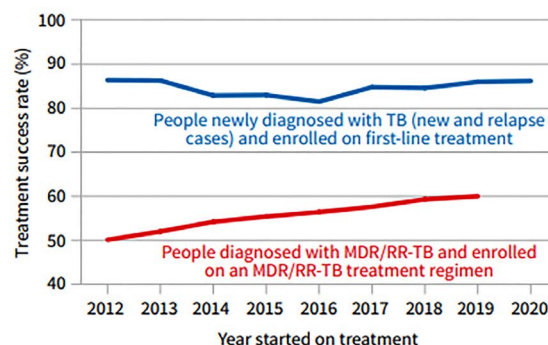
Note:



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- The **burden of drug-resistant TB (DR-TB) increased by 3% globally** between 2020 and 2021, with 450,000 new cases of rifampicin-resistant TB (RR-TB) being reported in 2021.
- **Disruptions due to Covid-19:**
 - This is the **first time in several years** that an **upward trend** has been reported in the number of **people developing both TB and DR-TB**. Experts attribute this trend to the Covid-19 pandemic.
 - Many services were disrupted by the Covid-19 in 2021 but its impact on the TB response has been particularly severe.
- **Underreporting - A Major Concern:**
 - **Ten countries collectively accounted for 75% of the global gap** between estimated TB incidence and the reported number of people newly diagnosed with the disease. These gaps are due to:
 - **Underreporting** (of people diagnosed with TB)
 - **Underdiagnosis** (people with TB being unable to access health care or not being diagnosed when they do).
 - Underreporting is more of a problem in India; the country is among the top five contributors- **India (24%)**, Indonesia (13%), the Philippines (10%), Pakistan (6.6%) and Nigeria (6.3%).
- **Decline in Diagnosis and Expenditure:**
 - Reductions in the reported TB cases suggest an increase in the number of people with undiagnosed and untreated TB.
 - The number of people provided with **treatment for RR-TB and multidrug-resistant TB (MDR-TB) also declined** between 2019 and 2020.
 - The reported number of people receiving treatment for RR-TB in 2021 was 161,746, which is only about **one in three of those in need**.
 - The report also notes a **decline in global spending on essential TB services** from **US\$6 billion in 2019 to US\$5.4 billion in 2021**, which is less than half of the global target of US\$13 billion annually by 2022.

Global success rates for people treated for TB, 2012-2020^a



What is Tuberculosis?

➤ About:

- TB is caused by a bacterium called **Mycobacterium tuberculosis**, belonging to the Mycobacteriaceae family consisting of about 200 members.
- In humans, TB most **commonly affects the lungs (pulmonary TB)**, but it can also affect other organs (extra-pulmonary TB). It **can spread from person to person** through the air.
- Most people who develop the disease are adults — in 2021, **men accounted for 56.5% of the TB burden, adult women - 32.5% and children - 11%**.
- TB is **preventable and curable**- around 85% of people who develop the disease can be successfully treated with a 4/6-month drug regimen.

➤ India's Initiatives to Eliminate TB:

- Under the **Pradhan Mantri TB Mukh Bharat Abhiyan**, India aims to eliminate TB from the country by 2025 (5 years earlier than the global target of 2030).
 - **Ni-kshay Mitra** is a component of this initiative that ensures additional diagnostic, nutritional, and vocational support to those on TB treatment.
- India conducts its own **National TB Prevalence Survey** to assess the true TB burden in the country which is the **world's largest such survey ever conducted**.
 - The Union Ministry for Health and Family Welfare also launched the '**TB Harega Desh Jeetega Campaign**', along with the Survey.
- Currently, two vaccines **VPM (Vakzine Projekt Management) 1002** and **MIP (Mycobacterium Indicus Pranii)** have been developed and identified for TB which are under clinical trials.

Note:

➤ **Note:**

- The **World Tuberculosis (TB) Day** is observed on **24th March** to **spread awareness** about the disastrous health, social, and economic consequences of TB and to make efforts to end the TB epidemic globally.
- The **Bacille Calmette-Guérin (BCG) vaccine** is presently the **sole vaccine available for the prevention of TB**.

Global Multidimensional Poverty Index (MPI) 2022

Why in News?

Recently, the **Global Multidimensional Poverty Index (MPI) 2022** was released by the **United Nations Development Programme (UNDP)** and the **Oxford Poverty and Human Development Initiative (OPHI)**.

What are the Key Highlights of the Index?

➤ **Global Data:**

- 1.2 billion people are multidimensionally poor.
 - Nearly half of them live in severe poverty.
 - Half of poor people (593 million) are children under age 18
 - The number of poor people is highest in Sub Saharan Africa (579 million), followed by South Asia (385 million). The two regions together are home to 83% of poor people.

➤ **Impact of Pandemic:**

- The data do not, however, reflect post-pandemic changes.
- According to the report the **Covid-19 pandemic could set back the progress made in poverty reduction** globally by 3-10 years.
 - The most recent data on food security from the World Food Programme suggest that the number of people living in food crises or worse increased to 193 million in 2021.

What are the Key Findings about India?

➤ **Data:**

- India has by far the **largest number of poor people worldwide at 22.8 crore**, followed by **Nigeria at 9.6 crore**.
- **Two-thirds of these people live in a household** in which at least one person is deprived of nutrition.
- **Reduction in Poverty:**
 - The incidence of **poverty fell from 55.1% in 2005/06 to 16.4% in 2019/21** in the country.
 - The **deprivations in all 10 MPI indicators saw significant reductions** as a result of which the MPI value and incidence of poverty more than halved.
 - As many as **41.5 crore people moved out of poverty in India** during the 15-year period between 2005-06 and 2019-21.
 - Improvement in MPI for India has significantly **contributed to the decline in poverty in South Asia**.
 - South Asia now has **not the lowest number of poor people than Sub-Saharan Africa**.
- **Relative Reduction in Poverty:**
 - The relative reduction from **2015/2016 to 2019/21 was faster: 11.9% a year** compared with 8.1% from 2005/2006 to 2015/2016.
- **Performance of States:**
 - Bihar, the poorest state in 2015-16, **saw the fastest reduction in MPI value in absolute terms**.
 - The **percentage of poor in Bihar fell from 77.4 % in 2005-06 to 52.4 % in 2015-16** and further to 34.7 % in 2019-21.
 - However, in relative terms, the **poorest states have not quite caught up**.
 - Of the 10 poorest states in 2015/2016, only one (West Bengal) have emerged out of the list in 2019-21.
 - The rest (Bihar, Jharkhand, Meghalaya, Madhya Pradesh, Uttar Pradesh, Assam, Odisha, Chhattisgarh and Rajasthan) remain among the 10 poorest.
 - Across states and union territories in India, **the fastest reduction in relative terms was in Goa, followed by Jammu and Kashmir, Andhra Pradesh, Chhattisgarh and Rajasthan**.
- **Poverty among Children:**

Note:

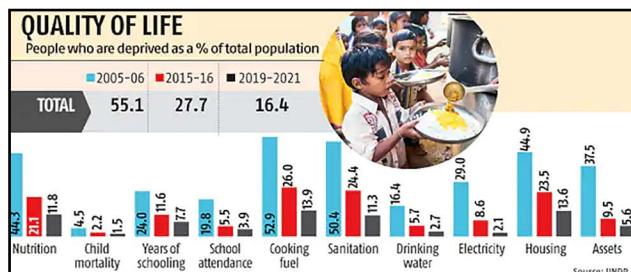


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- Poverty among children **fell faster in absolute terms**, although India still has the highest number of poor children in the world.
- **More than one in five children in India are poor** compared with around one in seven adults.

➤ Reduction of Poverty Region Wise:

- The incidence of **poverty fell from 36.6% in 2015-2016 to 21.2% in 2019-2021** in rural areas and **from 9.0% to 5.5% in urban areas**.

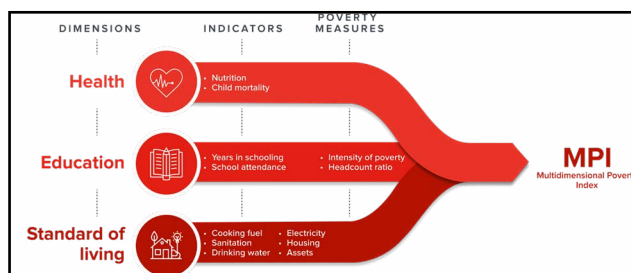


What is the Global Multidimensional Poverty Index?

➤ About:

- The index is a **key international resource** that measures acute multidimensional poverty across more than 100 developing countries.
- It was **first launched in 2010 by the OPHI** and the Human Development Report Office of the UNDP.
- The **MPI monitors deprivations in 10 indicators** spanning health, education and standard of living and includes both incidence as well as intensity of poverty.

➤ MPI Indicators and Dimensions:

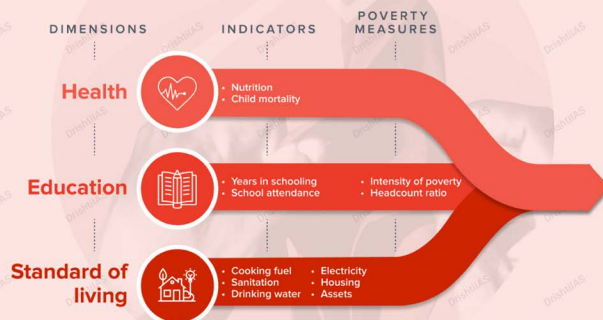


- A person is **multidimensionally poor** if she/he is deprived in one third or more (means 33% or more) of the weighted indicators (out of the ten indicators). Those who are deprived in one half or more of the weighted indicators are considered living in **extreme multidimensional poverty**.

Global Multidimensional Poverty Index (MPI) 2022

- ★ First launched in 2010
- ★ Reflects the **multiple deprivations** that poor people face in the areas of education, health, and living standards.
- ★ MPI **ranges from 0 to 1**, and higher values imply higher poverty
- ★ Released by: United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI)

Dimensions and Indicators



Global Scenario

- ★ 120 crores are multidimensionally poor
- ★ About half of them are children under age 18
- ★ Most of them live in Sub-Saharan Africa (57.9 crore), followed by South Asia (38.5 crore)
- ★ India has by far the largest number of poor people worldwide followed by Nigeria



Indian Scenario

- ★ 22.8 crore are multi-dimensionally poor (including 9.7 crore children)
- ★ Number of poor people fell by about 41.5 crore between 2005-06 and 2019-21
- ★ MPI value fell from 0.283 in 2005-06 to 0.069 in 2019-21, and the incidence of poverty fell from 55.1% to 16.4%
- ★ Bihar, the poorest state in 2015-16, saw the fastest reduction in MPI value in absolute terms.
- ★ The fastest reduction in relative terms was in Goa, followed by Jammu and Kashmir, Andhra Pradesh, Chhattisgarh and Rajasthan.

Polio Eradication

Why in News?

Recently, global leaders confirmed USD 2.6 billion in funding toward the **Global Polio Eradication Initiative's (GPEI) 2022-2026 Strategy** to end polio at the **World Health Summit** in Berlin.

What is the World Health Summit?

- The World Health Summit is an **international health conference**.
- WHS 2022 **aimed to strengthen exchange, stimulate innovative solutions** to health challenges, position global health as a key political issue and promote a global health conversation in the spirit of the **UN Sustainable Development Goals**.

What is Polio?

➤ About:

- Polio is a **crippling and potentially deadly viral infectious disease** that affects the nervous system.

Note:

- There are three individual and immunologically distinct wild poliovirus strains:
 - Wild Poliovirus type 1 (WPV1)
 - Wild Poliovirus type 2 (WPV2)
 - Wild Poliovirus type 3 (WPV3)
- Symptomatically, all three strains are identical, in that they cause irreversible paralysis or even death. However, there are genetic and virological differences, which make these three strains separate viruses which must each be eradicated individually.
- **Spread:**
 - The virus is **transmitted person-to-person mainly through the faecal-oral route** or, less frequently, by a common vehicle (for example, through contaminated water or food).
 - It **largely affects children under 5 years of age**. The virus multiplies in the intestine, from where it can invade the nervous system and can cause paralysis.
- **Symptoms:**
 - Most people with polio do not feel sick. Some people have only minor symptoms, such as fever, tiredness, nausea, headache, pain in the arms and legs, etc.
 - In rare cases, polio infection causes permanent loss of muscle function (paralysis).
 - Polio can be fatal if the muscles used for breathing are paralysed or if there is an infection of the brain.
- **Prevention and Cure:**
 - There is no cure, but it can be prevented through **Immunisation**.
- **Vaccines:**
 - **Oral Polio Vaccine (OPV):** It is given orally as a birth dose for institutional deliveries, then primary three doses at 6, 10 and 14 weeks and one booster dose at 16-24 months of age.
 - **Injectable Polio Vaccine (IPV):** It is introduced as an additional dose along with the 3rd dose of **DPT (Diphtheria, Pertussis and Tetanus)** under the **Universal Immunisation Programme (UIP)**.
- **India & Polio:**
 - **India received polio-free certification** by the **World Health Organisation (WHO)** in 2014, after three years of zero cases.
 - This achievement has been spurred by the successful **Pulse Polio Campaign** in which all children were administered polio drops.
 - The last case due to **wild poliovirus** in the country was detected on 13th January 2011.

What Initiatives have been taken to Eradicate Polio?

- **Global:**
 - **Global Polio Eradication Initiative:**
 - It was **launched in 1988 by the Global Polio Eradication Initiative (GPEI)**, by national governments and WHO. Presently, 80% of the world's population is now living in certified polio-free regions.
 - An estimated 1.5 million childhood deaths have been prevented, through the systemic administration of vitamin A during polio immunization activities.
 - **World Polio Day:**
 - It is observed every year on 24th October in order to call on countries to stay vigilant in their fight against the disease.
- **Indian:**
 - **Pulse Polio Programme:**
 - It was **started with an objective of achieving 100% coverage** under Oral Polio Vaccine.
 - **Intensified Mission Indradhanush 2.0:**
 - It was a nationwide immunisation drive to mark the 25 years of **Pulse polio programme (2019-20)**.
 - **Universal Immunization Programme (UIP):**
 - It was launched in **1985 with the modification to 'Expanded Programme of Immunization (EPI)**. The objectives of the Programme include:
 - Rapidly increasing immunization coverage
 - Improving the quality of services
 - Establishing a reliable cold chain system to the health facility level
 - Introducing a district-wise system for monitoring of performance
 - Achieving self-sufficiency in vaccine production.

World Food Day

Why in News?

World **Food Day** is celebrated to commemorate the establishment of the United Nations **Food and Agriculture Organisation (FAO)** on **16th October 1945**.

- **FAO is a specialised agency of the United Nations** that leads international efforts to defeat hunger.

Note:



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What are the Key Highlights of World Food Day 2022?

- **About:**
 - It is observed **annually** to address the problem of global hunger.
 - It emphasises **Sustainable Development Goal 2** (SDG 2) i.e., **Zero Hunger**.
- **Theme:** Leave No One Behind.
- **Significance:**
 - As a global community, we each have a role to play in bringing forward those left behind by making our agrifood systems more inclusive and sustainable.
 - Promote worldwide awareness and action for those who suffer from hunger and for the need to ensure healthy diets for all.
 - Many awareness initiatives are also held to educate people about malnutrition and obesity, both of which cause major health consequences.

What is the Status of Global Hunger according to Various Reports?

- **The Hunger Hotspots Outlook (2022-23)**, a report by the **FAO** and **World Food Programme (WFP)** — forebodes escalating hunger, as **over 205 million people across 45 countries will need emergency food assistance to survive**.
- **The Global Report on Food Crises 2022** released in May by the Global Network against Food Crises underscored that about 180 million people across 40 countries will face inescapable food insecurity.
- **Global Hunger Report, 2022:** Globally, the progress against hunger has largely stagnated in recent years, with a **global score of 18.2 in 2022** as compared to 19.1 in 2014, there is only a slight improvement,
 - Barring war-torn Afghanistan, India has performed worse than all the countries in the South Asian region in the the **Global Hunger Index 2022**.
 - It has ranked **107 out of 121 countries**.

What are the Related Indian Initiatives?

- **Eat Right India** and **Fit India Movement** along with **Swachh Bharat Abhiyan**, **Jal Jeevan Mission** and other efforts will improve the health of Indians and heal the environment.

- **Introduction of 17 new biofortified varieties of crops** to overcome the shortcomings of the common variety of crops which lacks important micronutrients.
 - **Example: MACS 4028 Wheat, Madhuban Gajar**, etc.
- **Increased ambit and effective implementation of the Food Security Act, 2013.**
- **Amendments to the APMC (agricultural produce market committee) Acts** to make them more competitive.
- Steps to ensure that farmers get one and a half times the cost as **Minimum Support Price (MSP)**, which along with the government procurement, is an important part of ensuring the country's food security.
- Development of a large network of **Farmer Producer Organisations (FPOs)**.
- **Amendments in the Essential Commodities Act, 1955** to deal with the issue of grain wastage in India.
- The government is making efforts to **make India Trans Fat free by 2022**, a year ahead of the **World Health Organisation (WHO)** target, in synergy with the vision of **New India @75** (75 years of India's independence).
 - **Trans Fat** is a **food toxin** present in **Partially Hydrogenated Vegetable Oils (PHVOs)** (e.g., vanaspati, shortening, margarine, etc.), baked and fried foods.
- **FAO supported India's proposal to declare 2023 as the International Year of Millets.**
- For improving food access, especially for vulnerable populations, the Government of India drives programmes such as the **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY)**.

Women Representation in Parliament

Why in News?

- Recently, the representation of women in parliament in New Zealand crossed the **50% mark**.
- According to the **Inter-Parliamentary Union**, New Zealand is among a half-dozen nations in the world that can claim at least 50% female representation in their parliament by 2022.
 - In 1893, New Zealand became the first nation to allow women to vote.

Note:

- Other nations include **Cuba, Mexico, Nicaragua, Rwanda and the United Arab Emirates.**
- Globally, about 26% of lawmakers are women.

What is the Indian Scenario?

- As per the data compiled by the IPU, of which India is a member, women **represent 14.44% of the total members of the Lok Sabha.**
- As per the latest **Election Commission of India (ECI) data:**
 - As of October 2021, Women represent **10.5%** of the total members of the Parliament.
 - The scenario for women **Members of Legislative Assemblies (MLAs)** across all state assemblies in India is even worse, with the national average being a pitiable 9%.
 - In the last 75 years of independence, **women's representation in Lok Sabha has not even increased by 10%.**
- In electoral representation, India has fallen several places in the **Inter-Parliamentary Union's global ranking of women's parliamentary** presence, from 117 after the 2014 election to 143 as of January 2020.
 - India is currently behind Pakistan (106), Bangladesh (98) and Nepal (43) and ahead of Sri Lanka (182).

What are the Reasons for Low Representation?

- **Gender stereotypes:**
 - The role of managing household activities has been traditionally assigned to women.
 - Women should be **encouraged to move outside their stereotypical roles** and participate in the decision-making process of the country.
- **Competition:**
 - Politics, like any other field, is a field of competition. At the end of the day, Women politicians are their competition as well.
 - Many of the politicians fear that, in the case of **women reservation, their seats can rotationally be reserved for women candidates**, thus, making them lose any chance of even fighting from their seats.
- **Lack of Political Education:**
 - Education influences the **social mobility of women.** Formal education such as provided at educational institutions create opportunities for leadership, and impart leadership essential skills.

- Because of a lack of understanding of politics, **they do not know about their basic and political rights.**

➤ **Work and Family:**

- Uneven distribution of family care responsibilities means that women spend far more time than men in home- and child-care.
- A woman not only has to give her time and effort at time of pregnancy and childbirth, but it continues till the child is dependent on parents for care.

➤ **Lack of Political Networks:**

- The lack of openness in political decision-making and undemocratic internal processes pose a challenge for all newcomers, but particularly for women as they tend to lack insider knowledge or political networks.

➤ **Lack of Resources:**

- Because of their low proportion in the inner **political party structure of India**, women fail to gather resources and support for nurturing their political constituencies.
- Women do not get adequate financial support from the political parties to contest the **elections.**

➤ **Social Conditioning:**

- They have to accept the dictates imposed on them and bear the burden of society.
- Public attitudes not only determine how many female candidates win a general election but also directly and indirectly how many are considered and nominated for office.

➤ **Unfriendly Environment:**

- Overall political parties' environment too is not women-friendly, they have to struggle hard and face multi-dimensional issues to create space for them in the party.
- There has been increasing violence in politics. A significant rise in **criminalization**, corruption, insecurity has driven women out of the political arena.

What are the Government Efforts?

➤ **The Women's Reservation Bill 2008:**

- It proposes to amend the Constitution of **India to reserve 1/3rd of all seats** in the Lower house of Parliament of India, the Lok Sabha, and in all state legislative assemblies for women.

Note:



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- **Reservation for Women in Panchayati Raj Institutions:**
 - **Article 243D of the Constitution** ensures **participation of women in Panchayati Raj Institutions** by mandating not less than one-third reservation for women out of total number of seats to be filled by direct election and number of offices of chairpersons of Panchayats.
- **Parliamentary Committee on Empowerment of Women:**
 - The Committee on Empowerment of Women was constituted for the first time in 1997 during the 11th Lok Sabha of the Parliament for improving the status of women.
 - The Members of the Committee are expected to work together for the empowerment of women cutting across party affiliations.

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

Why in News?

Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) helped **compensating 20-80% of the income loss** incurred because of the **Covid-19 induced lockdown**, as per a study conducted by Azim Premji University across four states (Bihar, Karnataka, Maharashtra and Madhya Pradesh).

- However, **39% of the surveyed households didn't get a single day of work in the Covid-19 year** due to **lack of adequate works** being sanctioned/opened.

What is MGNREGA?

- **About:** MGNREGA is **one of the largest work guarantee programmes** in the world **launched in 2005** by the **Ministry of Rural development**.
 - The primary objective of the scheme is to **guarantee 100 days of employment** in every financial year to **adult members of any rural household** willing to do public work-related unskilled manual work.
 - As of 2022-23, there are **15.4 crore active workers under the MGNREGA**.
- **Legal Right to Work:** Unlike earlier employment guarantee schemes, the act **aims at addressing the causes of chronic poverty** through a rights-based framework.

- At least **one-third of beneficiaries have to be women**.
- Wages must be paid according to the statutory minimum wages specified for agricultural labourers in the state under the **Minimum Wages Act, 1948**.
- **Demand-Driven Scheme:** The most important part of MGNREGA's design is **its legally-backed guarantee for any rural adult to get work within 15 days of demanding it**, failing which an 'unemployment allowance' must be given.
 - This demand-driven scheme enables the self-selection of workers.
- **Decentralised planning:** There is an emphasis on strengthening the process of decentralisation by giving a significant role in **Panchayati Raj Institutions (PRIs)** in planning and implementing these works.
 - The act **mandates Gram sabhas to recommend the works that are to be undertaken** and at least 50% of the works must be executed by them.



What are the Issues

Associated with Implementation of Scheme?

- **Delay and Insufficiency in Funds Dispersal:** Most states have failed to disburse wages within 15 days as mandated by MGNREGA. In addition, **workers are not compensated for a delay in payment of wages**.
 - This has turned the scheme into a supply-based programme and subsequently, **workers had begun to lose interest in working under it**.

Note:

- There is ample evidence by now, including an admission by the Ministry of Finance, that **delays in wage payments are a consequence of insufficient funds.**
- **Caste Based Segregation:** There were significant variations in delays by caste. While 46% of payments to **SC (Scheduled Caste)** workers and 37% for **ST (Scheduled Tribes)** workers were completed in the mandated seven-day period, it was a dismal 26% for non-SC/ST workers.
- The **negative impact of caste-based segregation was felt acutely in poorer States** such as Madhya Pradesh, Jharkhand, Odisha and West Bengal.
- **Ineffective Role of PRI:** With very little autonomy, gram panchayats are not able to implement this act in an effective and efficient manner.
- **Large Number of Incomplete works:** There has been a delay in the completion of works under MGNREGA and **inspection of projects has been irregular.** Also, there is an issue of quality of work and asset creation under MGNREGA.
- **Fabrication of Job cards:** There are several issues related to the existence of **fake job cards, the inclusion of fictitious names, missing entries and delays** in making entries in job cards.

Pay Parity in Cricket

Why in News?

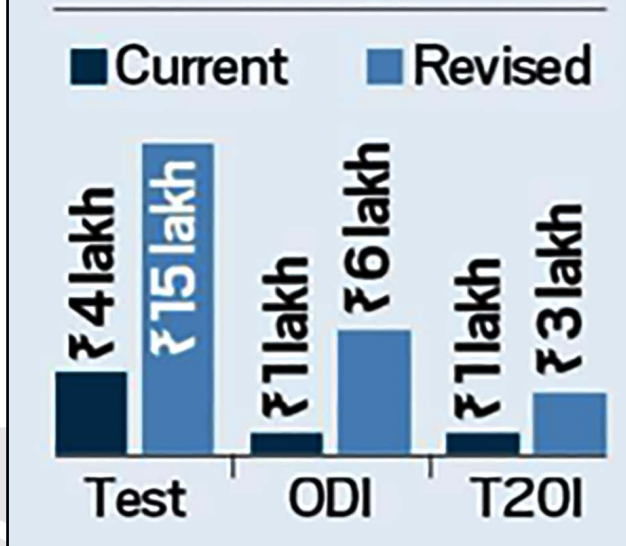
Recently, the **Board of Control for Cricket in India (BCCI)** announced a “**pay equity policy**”, saying that its **centrally-contracted men and women players** would get the same match fees.

- The step is a significant move towards bringing **gender pay parity** as, according to **Global Gender Gap Index 2022**, at the current rate of progress, it will take 132 years to reach full parity.

What do we know about the Increase in Women Player's Fee?

- The women players will now get Rs 15 lakh per **Test match**, Rs 6 lakh for a **One-Day International (ODI)**, and Rs 3 lakh for a **T20 International**. Till now, they were paid Rs 1 lakh for a **white-ball match**, and Rs 4 lakh for a **Test**.

THE PAY STRUCTURE FOR WOMEN



- The **annual retainership for women cricketers remains the same** — Rs 50 lakh for Grade A, Rs 30 lakh for Grade B and Rs 10 lakh for Grade C.
 - The men, who play more games, are paid Rs 1-7 crore, depending on their grade.

Has any Other Country also Implemented Equal Pay in Sports?

- India has **become only the second country in international cricket** to implement equal pay.
- **New Zealand Cricket (NZC)**, in 2022, had struck a deal with the country's players' association, which enabled the **women cricketers to earn as much as the male players.**
 - This comes four months after the **United States' women's national footballers** won the six-year-long battle with their federation to secure equal compensation.
- **Tennis** has made moves to **increase equal pay between their male and female players**, and today all four major tennis tournaments (**Australian Open, Roland Garros, Wimbledon and US Open**) offer equal prize money.

What are the Challenges in Bringing Gender Pay Parity in Sports?

- **Revenue Generation:**

Note:

- The argument is that the **returns generated by male players are higher** than what women generate.
- While assessing the **monetary benefits** in sports, a few things are considered, including **endorsements, sports merchandising and ticket sales**, among others. However, this is based on the **viewership and fanbase**, which is, in turn, influenced by the **androcentric nature of sports**.
- Women's entry into sports happened **much later than men** due to societal restrictions. This has resulted in a **lower 'entertainment value'** of women's sport.

➤ Differential Performance:

- This argument states that since **men are 'stronger' and can perform better in sports than women**, they should be paid a higher amount.
- In professional tennis, men play **five sets per match** and women play **three sets per match**, a rule based on the assumption that women are physically weaker than men.
 - Despite **women's demonstrated willingness and capability to play five sets**, decision-makers (who were mostly men) believed that the quality of the game would deteriorate if women played five sets.

➤ Representation Issues:

- The **weak representation of women in sports governance** structures is also a cause of the persistence of the pay gap in the sport industry. Female representation in some governance structures has improved, **but this has only happened recently**. Further, most of the governing bodies still need a **stronger push to enhance female membership**.

What is the Key Revelation of Global Gender Gap Index 2022?

➤ About:

- **Global Gender Gap Index** benchmarks countries on their **progress towards gender parity** in four Key dimensions with Sub Metrics namely:
 - Economic Participation and Opportunity, Educational Attainment, Health and Survival, Political Empowerment.

➤ India's performance:

INDIA'S REPORT CARD				
Index/sub-index	2022 (146 countries)		2021 (156 countries)	
	Rank	Score	Rank	Score
Global Gender Gap Index	135	0.629	140	0.625
Political empowerment	48	0.267	51	0.276
Economic participation & opportunity	143	0.350	151	0.326
Educational attainment	107	0.961	114	0.962
Health and survival	146	0.937	155	0.937

- India has been ranked at **135, out of a total of 146 countries**.
- India's overall score has improved from **0.625 (in 2021) to 0.629**, which is its **seventh-highest score** in the last 16 years.
 - In 2021, India was ranked **140 out of 156 countries**.
- **Economic Participation and Opportunity (Percentage of women in labour force, Wage Equality for similar work, Earned income):**
 - India ranks a lowly **143 out of the 146 countries** in contention even though its score has improved over **2021 from 0.326 to 0.350**.
 - In 2021, India was pegged at **151 out of the 156 countries**.
 - India's score is **much lower than the global average**, and only Iran, Pakistan and Afghanistan are behind India on this metric.

What are the Indian Initiatives to reduce Gender Gap in Social, Economic and Political Life?

➤ Economic Participation and Health and Survival:

- **Beti Bachao Beti Padhao**
- **Mahila Shakti Kendra**
- **Sukanya Samridhi Yojna**
- **Female Entrepreneurship**

➤ Political Reservation:

- Government has reserved 33% of the seats in Panchayati Raj Institutions for women.
- **Capacity Building of Elected Women Representatives:**
 - It is conducted with a view to empowering women to participate effectively in the governance processes.



Note:

Science & Technology

Highlights

- NavIC
- Pillars of Creation: James Webb Telescope
- Mangalyaan Mission Over
- First-Ever List of Fungal Infections

NavIC

Why in News?

Indian plans to expand its regional satellite navigation system **NavIC (Navigation in Indian Constellation)**, to increase its use in the civilian sector and ships, aircraft travelling far from the country's borders.

What is NavIC?

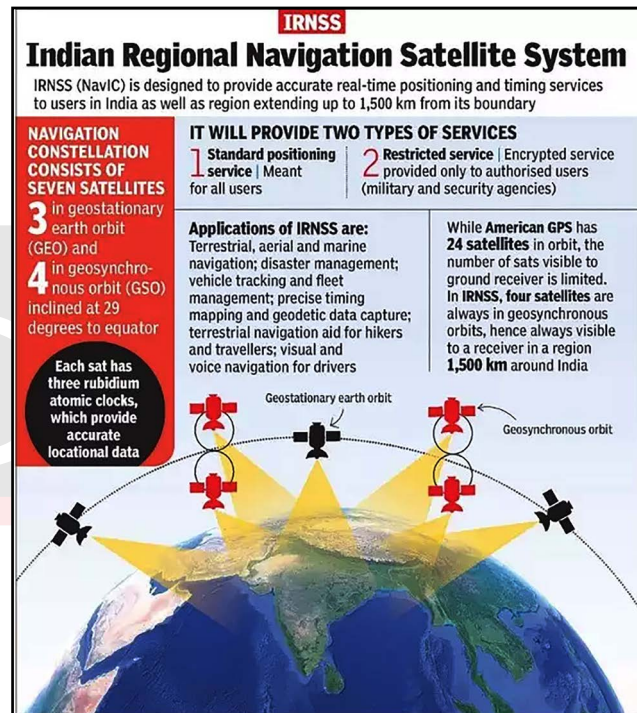
➤ About:

- NavIC or the Indian Regional Navigation Satellite System (IRNSS) is designed with a constellation of 7 satellites and a network of ground stations operating 24 x 7.
 - There are a total of eight satellites however only seven remain active.
 - Three satellites in geostationary orbit and four satellites in geosynchronous orbit.
- The constellations' first satellite (IRNSS-1A) was launched on **1st July 2013** and the **eightth satellite IRNSS-1I** was launched in **April 2018**.
 - With the seventh launch of the constellation's satellite (IRNSS-1G), IRNSS was **renamed NavIC** by India's Prime Minister in 2016.
- It was recognised by the **International Maritime Organization (IMO)** as a part of the World-Wide Radio Navigation System (WWRNS) for operation in the Indian Ocean Region in 2020.

➤ Potential Uses:

- Terrestrial, aerial and marine navigation;
- Disaster management;
- Vehicle tracking and fleet management (especially for mining and transportation sector);
- Integration with mobile phones;
- Precise timing (as for ATMs and power grids);

- Mapping and geodetic data capture.



What is the Significance?

- It gives real time **information for 2 services i.e standard positioning service open for civilian use and Restricted service** which may be encrypted for authorized users like for military.
- India became one of the **5 countries having their own navigation system**. So, India's dependence on other countries for navigation purposes reduces.
- It will help **scientific & technological advancement in India**. It is important for the country's sovereignty and strategic requirements.
- In April 2019, the government made **NavIC-based vehicle trackers mandatory for all commercial vehicles** in the country in accordance with the Nirbhaya case verdict.

Note:



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- Also, Qualcomm Technologies has **unveiled mobile chipsets** supporting NavIC
- Further with extensive coverage, one of the stated future uses of the project includes sharing of the project with the **SAARC nations**. This will help in integrating the regional navigation system further and a diplomatic goodwill gesture from India towards countries of the region.

What are the Issues and Intended Improvements?

- **L Band:**
 - ISRO plans to replace **at least five satellites with the improved L-Band**, which would enable it to **offer better global positioning services** to the public as several satellites of the constellation have outlived their lives.
 - Five more satellites will be launched periodically to replace the defunct satellites.
 - The new satellites will have **L-1, L-5 and S Band**.
 - **L1, L2 and L5** are GPS frequencies, where L1 frequency is used to track GPS satellite location, L2 frequency is used to track the health of the GPS satellites and the L5 frequency is used to improve accuracy for civilian use such as aircraft precision.
 - **S band operate** on a wavelength of 8-15 cm and a frequency of 2-4 GHz. Because of the wavelength and frequency, S band radars are not easily attenuated. This makes them useful for near and far range weather observation.
- **Long Code for Strategic Sector:**
 - Currently ISRO is providing **only short code**. Now, the short code has to become **long code for strategic sector use** so that the **signal cannot be breached** or spoofed or made non-available.
 - It will be done so that the **user base can be widened and to** make it user friendly.
- **Mobile Compatibility:**
 - Currently, the mobile phones in India haven't been made **compatible to process its signals**.
 - The Indian government has been pressing manufacturers to add compatibility and has set a deadline of January 2023 but media reports suggest this is unlikely before 2025.

Which are the other Navigation Systems operational in the world?

- **Four global systems:**

- GPS from the U.S.
- GLONASS from Russia.
- Galileo from European Union
- BeiDou from China.
- **Two regional systems:**
 - NavIC from India
 - QZSS from Japan.

What is the need for NavIC when already others are Operating?

- GPS and GLONASS are operated by defence agencies of the respective nations.
- It is possible that the **civilian service can be degraded or denied**.
- NavIC is **an independent regional system over the Indian region** and does not depend on other systems for providing position service within the service region.
- It is fully **under the control of the Government** of India.

Pillars of Creation: James Webb Telescope

Why in News?

A lush, highly detailed landscape- the iconic "**Pillars of Creation**" has been caught by NASA's powerful **James Webb Telescope**.



Note:

What is Pillars of Creation?

➤ About:

- It is a **vista of three looming towers made of interstellar dust and gas**.
- These iconic Pillars of Creation is located in the centre of the **Eagle Nebula (it is a constellation of stars)**, which is also known as Messier 16.
- The images show vast, towering columns of dense clouds of gas and dust where young stars are forming in a region some **6,500 light-years from Earth**.
- At the ends of several pillars are **bright red, lava-like spots**. These are **ejections from stars that are still forming**, only a few hundred thousand years old.
- The pillars were made famous by the **Hubble Space Telescope**, which first captured them in **1995 and then again in 2014**.

➤ Significance:

- The new image will help researchers revamp their models of star formation by identifying far more precise counts of newly formed stars, along with the quantities of gas and dust in the region.

What is the James Webb Space Telescope?

➤ About:

- The telescope is the result of an international collaboration between NASA, the **European Space Agency (ESA)** and the Canadian Space Agency which was launched in December 2021.
- It is currently at a point in space known as the **Sun-Earth L2 Lagrange point**, approximately 1.5 million km beyond Earth's orbit around the Sun.
 - Lagrange Point 2 is one of the five points in the orbital plane of the Earth-Sun system.
 - Named after Italian-French mathematician Josephy-Louis Lagrange, the points are in any revolving two-body system like Earth and Sun, marking where the gravitational forces of the two large bodies cancel each other out.
 - Objects placed at these positions are relatively stable and require minimal external energy or fuel to keep themselves there, and so many instruments are positioned here.
- It's the largest, most powerful infrared space telescope ever built.
- It's the **successor to Hubble Telescope**.

- It can see backwards in time to just after the Big Bang by looking for galaxies that are so far away that the light has taken many billions of years to get from those galaxies to our telescopes

➤ Objectives:

- It will **examine every phase of cosmic history**: from the Big Bang to the formation of galaxies, stars, and planets to the evolution of our own Solar System.
- The goals for the Webb can be grouped into four themes.
 - The first is to **look back around 13.5 billion years** to see the first stars and galaxies forming out of the darkness of the early universe.
 - Second, to compare the faintest, earliest galaxies to today's grand spirals and understand how galaxies assemble over billions of years.
 - Third, to see where stars and planetary systems are being born.
 - Fourth, to observe the atmospheres of extrasolar planets (beyond our solar system), and perhaps find the building blocks of life elsewhere in the universe.

Mangalyaan Mission Over

Why in News?

The **Indian Space Research Organization (ISRO)** confirmed that the **Mars Orbiter craft** has lost communication and is non-recoverable and the Mangalyaan mission has attained end-of-life.

- Despite being designed for a life-span of six months as a technology demonstrator, the **Mars Orbiter Mission (MOM)** has lived for about eight years in the **Martian orbit**.

What caused the End of MOM?

- Because of propellant (fuel) exhaustion the desired altitude pointing **could not be achieved for sustained power generation** and it lost communication from the ground station.
- Recently there were **back-to-back eclipses including one that lasted seven-and-half hours because that satellite has consumed all the propellant on board**.
 - As the satellite battery is designed to **handle eclipse duration of only about one hour and 40 minutes**, a longer eclipse would drain the battery beyond the safe limit.

Note:



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What is MOM?➤ **About:**

- The **Rs 450 crore Mars Orbiter Mission** was launched onboard **PSLV-C25** on 5th November, 2013, and the **MOM spacecraft was successfully inserted into the Martian orbit** in September, 2014 in its first attempt.
- Mangalyaan was **India's first interplanetary mission**.
- The mission made India the first Asian country, and the fourth in the world after **Roscosmos, NASA (National Aeronautics and Space Administration)**, and the **European Space Agency**, to get to the planet.
 - China referred to India's successful Mangalyaan as the **"Pride of Asia"**.

➤ **Description:**

- It carried **850 kg of fuel and 5 science payloads** including a **Mars Color Camera (MCC)** which it was using to study the **Martian surface and atmosphere** since entering orbit successfully.
 - The highly elliptical orbit geometry of MOM enabled **MCC to take snapshots of the 'Full disc' of Mars at its farthest point** and finer details from the closest point.
 - The MCC has **produced more than 1000 images** and published a Mars Atlas.
- **Other instruments are:** Thermal Infrared Imaging Spectrometer (TIS), Methane Sensor for Mars (MSM), Mars Exospheric Neutral Composition Analyser (MENCA) and Lyman Alpha Photometer (LAP).

➤ **Objectives:**

- It was aimed at studying the Martian atmosphere.
- To explore Martian surface **features, mineralogy, morphology and atmosphere using indigenous scientific instruments**.
- A crucial objective of MOM was to **develop technologies required in planning, designing, management and operations** of an interplanetary mission.

What is the Future Indian Mars Mission?

- ISRO came out with an 'Announcement of Opportunity' (AO) for future **Mars Orbiter Mission (MOM-2)** in 2016 but 'Gaganyaan', 'Chandrayaan-3' and 'Aditya-L1' projects are in the current priority list.
- Mangalyaan-2 will only be an **orbiter mission**.

What are the Various Mars Missions?

- **ExoMars rover (2021) (European Space Agency)**
- **Tianwen-1: China's Mars Mission (2021)**
- **UAE's Hope Mars Mission (UAE's first-ever interplanetary mission) (2021)**
- **Mars 2 and Mars 3 (1971) (Soviet Union)**
- **NASA's Perseverance Rover**

First-Ever List of Fungal Infections**Why in News?**

Recently, The **World Health Organisation** released the first-ever **list of fungal infections (Priority Pathogens)** that can be a **threat to public health**.

What is WHO's Fungal Priority Pathogen List?➤ **About FPPL:**

- **Fungal priority pathogens list (FPPL)** includes **19 fungi that represent the greatest threat to human health**.
- The list takes precedence from the **bacterial priority pathogens list**, first established by **WHO in 2017** with a similar focus to galvanise global attention and action.

➤ **Aim:**

- It aims to **focus and drive further research and policy interventions** to strengthen the global response to fungal infections and antifungal resistance.

➤ **Categories:**

- The classification is based on the **pathogen's public health impact or emerging antifungal resistance risk**.
 - **Critical Priority Group:** It includes *Candida auris*, which is a highly drug-resistant fungi, *Cryptococcus neoformans*, *Aspergillus fumigatus*, and *Candida albicans*.
 - **High Priority Group:** It includes a number of other fungi from the *Candida* family as well as others such as *Mucorales*, a group containing **"black fungus"**, an infection which rose rapidly in seriously ill people, particularly in India, during Covid-19.

Note:

- **Medium Priority Group:** It includes a number of other fungi, including *Coccidioides* spp and *Cryptococcus gattii*.

➤ **Recommended Actions by FPPL Report:**

- Strengthening laboratory capacity and surveillance.
- Sustaining investments in research, development, and innovation.
- Enhancing public health interventions for prevention and control.

What are the Rising Concerns related to Fungal Pathogens?

➤ **Concerns:**

- Fungal pathogens are a major threat to public health and are becoming increasingly common and **resistant to treatment** with only **four classes of antifungal medicines currently available**, and few candidates in the clinical pipeline.
- Most fungal pathogens **lack rapid and sensitive diagnostics** and those that exist are **not widely available or affordable globally**.

- Emerging evidence indicates that the **incidence and geographic range of fungal diseases are both expanding worldwide** due to global warming and the increase of international travel and trade.
- During the **COVID-19 pandemic**, the reported incidence of **invasive fungal infections increased significantly** among hospitalized patients.
- As the fungi that cause common infections (**such as candida oral and vaginal thrush**) become increasingly **resistant to treatment**, risks for the **development of more invasive forms of infections** in the general population are also growing.

➤ **Target Population:**

- These fungal infections often affect **severely ill patients** and those with significant **underlying immune system** related conditions.
- Populations at greatest risk of invasive fungal infections include those with **cancer, HIV/AIDS, organ transplants, chronic respiratory disease, and post-primary tuberculosis infection**.

Note:

Environment & Ecology

Highlights

- Sandalwood Spike Disease
- 2022 Forest Declaration Assessment
- Emissions Gap Report 2022: UNEP
- Lancet Countdown on Health and Climate Change
- Green Crackers
- Second Species of the Genus *Allmania*
- Great Indian Bustards (GIBs)
- New Varieties of Neelakurinji Flowers
- E-Waste Day
- Mission Life
- Glaciers in the Alps Melting Faster than Ever
- Froth in Yamuna
- Indian Bison (Gaur)
- Giraffe
- Sukapaika River
- Blue Flag Certification
- Impact of Heatwaves on Children: UNICEF
- Benefits of Biogas Why in News?

Sandalwood Spike Disease

Why in News?

Recently, a study showed that **Sandalwood Spike Disease (SSD)** is posing a severe threat on the **Commercial Cultivation of Sandalwood**.

What is Sandalwood Spike Disease?

➤ About:

- It is an infectious disease which is caused by **phytoplasma**.
 - Phytoplasmas are **bacterial parasites of plant tissues** — which are transmitted by insect vectors and involved in plant-to-plant transmission.
- There is no cure **as of now for the infection**.
 - Presently, there is **no option but to cut down and remove the infected tree** to prevent the spread of the disease.
- The disease was **first reported in Kodagu, Karnataka in 1899**.
 - More than a million sandalwood trees were removed in the Kodagu and Mysore region between 1903 and 1916.

➤ Concerns:

- About 1% to 5% of sandalwood trees are lost every year due to the disease, scientists warn that it could wipe out the entire natural population if measures are not taken to prevent its spread.

- Another concern is, **any delay in arresting the trend may result in the disease spreading to cultivated sandalwood trees**.

➤ Recent Steps:

- In an effort to combat the killer disease, the **Institute of Wood Science and Technology (IWST)**, Bangalore joined hands with the Pune-based National Centre for Cell Sciences **for a three-year study**, initiated by the Union Ministry of AYUSH with a financial allocation of Rs. 50 lakhs.
 - IWST is a Centre of Excellence for Sandalwood Research and Wood Science.

What is Indian Sandalwood?

➤ About:

- *Santalum album*, commonly known as Indian Sandalwood, is a **dry deciduous forest species native to China, India, Indonesia, Australia, and the Philippines**.
 - Sandalwood has been long **associated with the Indian heritage & culture, as the country contributed 85%** of the world's sandalwood trade erstwhile. However, lately this has been declining at a fast rate.
- This small tropical tree grows to 20m high with red wood and a variety of dark colors of bark (dark brown, reddish and dark grey).
 - Because it is strong and durable, *S. album* is mostly harvested for its timber.



Note:



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- **IUCN Red List Status:** Vulnerable
- **Uses:**
 - In India, it is also called “**Chandan**” and “**Srigandha**”. Sandalwood has a special place in Indian tradition **where it is being used from cradle to cremation**.
 - Sandalwood heartwood, which is close-grained, is used for fine furniture and carving. The heartwood and roots also **contain ‘sandal oil’** which is valued for use in perfumes, incense, cosmetics, soaps, and medicines. The bark contains tannin, which is used for dye.
 - Sandalwood essential **oil has antiseptic, anti-inflammatory, antispasmodic and astringent properties**.
 - It is used in aromatherapy to reduce stress, hypertension and heals wounds and treats skin blemishes.
- **Major Growing Areas:**
 - In India, sandalwood is mostly grown in Andhra Pradesh, Telangana, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Tamil Nadu.

2022 Forest Declaration Assessment

Why in News?

Recently, the 2022 Forest Declaration Assessment was published, showing that the **Deforestation** rates worldwide declined only modestly in 2021 by 6.3 % compared to the 2018-20 baseline.

- Some 145 countries affirmed their commitment to halt and reverse forest loss and land degradation by 2030 at the 26th UN Climate Change Conference of the Parties (**COP26 in Glasgow (2021)**).
- Forest Declaration Assessment publishes annual updates on progress toward global forest goals.
 - In 2014, the **New York Declaration on Forests (NYDF)** was adopted as a political declaration calling for the end of natural forest loss and the restoration of 350 million hectares of degraded landscapes and forestlands by 2030.

What are the Findings?

➤ Overview

- Not a Single Global Indicator is on Track’ to Reverse Deforestation by 2030.
- To be on course to halt deforestation completely by 2030, a 10% annual reduction is needed.
- While afforestation and restoration efforts have been commendable, more forest area is being lost than gained.
- Global **forest loss decreased in 2021**, but the crucial climate goal of stopping deforestation by 2030 would still be missed.
- **Contributors to Deforestation:**
 - **Brazil was the world’s largest** contributor to deforestation in 2021.
 - The country marked a **3% rise in the** rate of deforestation in 2021 compared to the baseline 2018-2020.
 - Although **Brazil didn’t show a large increase, its total deforestation rates each year remained high** — making it the world’s largest contributor.
 - **Bolivia and the Democratic Republic of the Congo** underwent deforestation at 6 % and 3 %, respectively.
- **Gain in Tree Cover:**
 - Global tree cover increased by 130.9 million hectares over the past two decades.
 - Three-quarters of the global gain was concentrated in 13 countries.
 - The most significant improvements were observed in **Russia (28.4 %), Canada, the United States, Brazil, and China**.
 - China showed the largest net gain in tree cover — 2.1 million hectares (Mha). India also marked a gain of 0.87 Mha in tree cover.
 - Globally, 118.6 Mha of the total tree cover gain is likely due to natural regeneration and assisted **natural regeneration that occurred outside plantations**.
- **Reduction in Deforestation:**
 - **Gabon** reduced deforestation by 28% in 2021 compared to 2018-20.
 - The country **implemented measures to combat illegal logging** and the enforcement of protected areas.
 - **Indonesia** reduced deforestation **after implementing the forest moratorium** and improved enforcement measures.

Note:



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- The moratorium, which covers around 66 million hectares of primary forest and peatland (terrestrial wetland ecosystems), was first introduced in 2011 and has been renewed regularly as part of the **efforts to reduce emissions from fires caused by deforestation.**
- In **Brazil**, the decline in deforestation rates between 2004 and 2012 can be partly attributed to the **coordinated implementation of the Action Plan for the Prevention and Control of Deforestation** in the Amazon.
 - It created protected areas and effective monitoring systems.
- Recent years have seen legal interventions in the European Union, Ecuador and India to protect forests.
 - In 2021, a constitutional court in Ecuador **upheld the rights of nature enshrined in the country's constitution.**
- **Recommendation:**
 - It is essential to note that tree cover gain does not cancel out tree loss.
 - Forest cover gains **don't negate the impacts of forest loss** in terms of carbon storage, biodiversity, or ecosystem services. The highest priority efforts should be directed towards **safeguarding primary forests from losses in the first place.**
 - Forest finance **needs to be on track to meet global goals** to halt and reverse deforestation by 2030.
 - It will cost up to USD 460 billion per year to protect, restore and enhance forests on a global scale.
 - Currently, domestic and international mitigation finance for forests averages USD 2.3 billion per year — less than 1 % of the required.
 - Forest funding must increase by up to **200 times to meet 2030 goals.**
 - Forests are the backbone of our economies and crucial to our wellbeing. It is now more important than ever **to speed up action and concerted efforts to halt deforestation and scale up restoration in a way that benefits people, nature and climate.**
 - This means more ground-up inclusive solutions, stronger collaboration and coordination among the **public and private sectors and the civil society, and moving from commitments to implementation.**

What is Deforestation?

➤ About:

- Deforestation is the **permanent removal of trees to make room for something besides forest.** This can include clearing the land for agriculture or grazing, or using the timber for fuel, construction or manufacturing.
- Today, most deforestation is **happening in the tropics.**

➤ Effect:

- Deforestation in tropical regions **can also affect the way water vapor is produced over the canopy**, which causes reduced rainfall.
- Deforestation not only removes vegetation that is important for removing carbon dioxide from the air, but the **act of clearing the forests also produces greenhouse gas emissions.**
- It is also **causing loss of biodiversity and animal life.**

➤ Indian Initiatives:

- **Indian Forest Policy, 1952**
- **Forest Conservation Act, 1980**
- National Forest Policy, 1988
- **National Afforestation Programme.**
- **Wildlife Protection Act of 1972**
- **Environment Protection Act of 1986**
- **Biodiversity Diversity Act of 2002.**
- **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.**

Emissions Gap Report 2022: UNEP

Why in News?

Ahead of COP27, the **United Nations Environment Programme (UNEP)** released a report titled '**Emissions Gap Report 2022: The Closing Window — Climate Crisis Calls for Rapid Transformation of Societies**'.

- This is the **13th edition** of the **UNEP Emissions Gap Report.** It assesses the gap between anticipated emissions in 2030 and levels consistent with the 1.5°C and 2°C targets of the **Paris Agreement.** Every year, the report features ways to bridge the gap.

Note:

What are the Findings?

- **The top 7 emitters** (China, the EU27, India, Indonesia, Brazil, the Russian Federation and the United States of America) plus international transport accounted for 55% of global GHG emissions in 2020.
 - For these countries GHG emissions rebounded in 2021, **exceeding pre-pandemic 2019 levels**.
- **Collectively, G20 members** are responsible for 75% of global **GHG (Greenhouse Gas Emission)** emissions.
- The global average per capita GHG emissions was **6.3 tonnes of CO₂ equivalent (tCO₂e) in 2020**.
 - India remains **far below the world average at 2.4 tCO₂e**.
- World is falling **short of the goals set forth in the Paris Climate Agreement** adopted in 2015, with no **credible pathway to 1.5°C in place**.
 - The Paris Agreement defined a global warming limit of 2°C above pre-industrial levels (preferably 1.5°C), which if exceeded, can result in **extreme weather events** such as extreme **heat waves, droughts, water stress**, etc.
- National pledges since **COP26 (Glasgow, UK)** make a **negligible difference to predict 2030 emissions**.

What are the Recommendations?

- The world needs to reduce greenhouse gasses by unprecedented levels **over the next eight years**.
- There is a need **for alternative technologies in heavy industry**, to reverse the rise in carbon intensity of global steel production.
- Urgent transformation is needed to deliver the **enormous cuts needed to limit GHG emissions by 2030**.
 - Unconditional and conditional **NDCs (Nationally Determined Contributions)** are expected to reduce global emissions by 5% and 10%, respectively, by 2030, when compared to current policies.
 - To be on the most cost-effective path to limiting global warming to 2°C or 1.5°C, these percentages must reach 30% and 45%.

What are the Initiatives to Reduce Emissions in India?

- **Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms**.
- **UJALA scheme**.

- **International Solar Alliance**.
- **National Action Plan on Climate Change (NAPCC)**.
- **Ethanol Blending in India by 2025**.
- **India Updated its NDC**.

What is the United Nations Environment Programme?

- **About:**
 - It is a **leading global environmental authority** established on **5th June 1972**.
 - It sets the **global environmental agenda**, promotes sustainable development within the United Nations system, and serves as an authoritative advocate for global environment protection.
- **Headquarters:**
 - Nairobi, Kenya.
- **Major Reports:**
 - Emission Gap Report, **Adaptation Gap Report, Global Environment Outlook**, Frontiers, Invest into Healthy Planet.
- **Major Campaigns:**
 - Beat Pollution, UN75, **World Environment Day**, Wild for Life.

Lancet Countdown on Health and Climate Change

Why in News?

Recently a report was released titled **Lancet countdown on health and climate change: health at the mercy of fossil fuels**, showing that from 2000-2004 to 2017-2021, **heat-related deaths increased by 55% in India**.

- This report comes ahead of this year's **United Nations climate change conference (COP27)**, to be held in Sharm El Sheikh, Egypt.
- The report represents the **work of 99 experts from 51 institutions**, including the **World Health Organization (WHO)** and the **World Meteorological Organization (WMO)**.

What is Lancet Countdown on Health and Climate Change Report?

- The Lancet Countdown on Health and Climate Change, published annually, is an **international, multidisciplinary**

Note:



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collaboration, dedicated to monitoring the evolving health profile of climate change, and providing an independent assessment of the delivery of commitments made by governments worldwide under the **Paris Agreement**.

- The countries considered in the modelling study represent **50% of the world's population and 70% of the world's emissions** – Brazil, China, Germany, India, Indonesia, Nigeria, South Africa, the UK and the US.
- The Lancet Countdown report was established following the 2015 Lancet Commission on Health and Climate Change.
- It tracks **43 indicators across five key domains**:
 - Climate Change impacts, Exposures and Vulnerability; adaptation, Planning, and resilience for health; mitigation actions and health co-benefits; economics and finance and public and political engagement.

What are the Findings of the Report?

- **Subsidies Causing Global Problems:**
 - Subsidies to fossil fuel consumption in **many countries are causing global problems, including deterioration of air quality**, decline in food output and increased risk of infectious disease linked to higher carbon emissions.
 - In 2021, 80% of the countries reviewed provided some form of fossil fuel subsidy, totaling USD 400 billion.
 - In 2019, India spent a net USD 34 billion on fossil fuel subsidies, accounting for 5% of total national health spending.
 - **Over 3,30,000 people died in India in 2020** as a result of exposure to **fossil fuel pollutants**.
- **Effects of Rising Temperature on Age Groups:**
 - From 2012-2021, infants under one year old experienced an average of 72 million more person-days of heatwaves per year, compared to 1985-2005.
 - **Adults over the age of 65 in India** experienced 301 million more person-days during the same time period.
 - From 2000-2004 to 2017-2021, heat-related deaths **increased by 55% in India**.
- **Impact on GDP:**
 - In 2021, Indians lost **167.2 billion potential labour hours** due to heat exposure with income losses equivalent to about 5.4% of national GDP.

➤ Dengue Transmission:

- From 1951-1960 to 2012-2021, the number of months suitable for dengue transmission by Aedes Aegypti rose by 1.69%, reaching 5.6 months each year.

What are the Recommendations?

- Improvement in air quality will help to **prevent deaths resulting from exposure** to fossil fuel-derived particulate matter.
- Develop climate solutions that are **proportionate to the scale of the problem**. The climate crisis is endangering not only the health of the planet, but also the health of people everywhere, through toxic air pollution, decreased food security, increased risks of infectious disease outbreaks, extreme heat, drought, floods, etc.
- Therefore, **governments should pay more attention to and invest more resources** in environmental protection.
- Burning of dirty fuels **needs to be minimized as soon as possible** to reduce the accompanying health impacts.

What are Initiatives taken by India for Controlling Air Pollution?

- **System of Air Quality and Weather Forecasting and Research (SAFAR) Portal**
- **Air Quality Index.**
- **Graded Response Action Plan (for Delhi)**
- **BS-VI Vehicles,**
- **Push for Electric Vehicles (EVs),**
- **New Commission for Air Quality Management**
- **Turbo Happy Seeder (THS) Machine** for reducing stubble burning.
- **National Air Quality Monitoring Programme (NAMP)**
- **National Solar Mission**
- **National Wind-Solar Hybrid Policy 2018.**

Green Crackers

Why in News?

Recently, a lot of the pollution observed during Diwali can be attributed to the burning of firecrackers or fireworks.

What are the Green Crackers?

- **Green crackers** are dubbed as 'eco-friendly' crackers and are known to cause less air and noise pollution as compared to traditional firecrackers.

Note:

- These crackers were **first designed by the National Environmental and Engineering Research Institute (NEERI)**, under the aegis of the Council for Scientific and Industrial Research (CSIR) in 2018.
 - NEERI is a constituent of CSIR to conduct research and developmental studies in environmental science and engineering.
- These crackers replace certain hazardous agents in traditional crackers with less polluting substances with the aim to reduce the noise intensity and emissions.
- Most green crackers **do not contain barium nitrate**, which is the most dangerous ingredient in conventional crackers.
- Green crackers **use alternative chemicals such as potassium nitrate and aluminium** instead of magnesium and barium as well as carbon instead of arsenic and other harmful pollutants.
- Regular crackers also produce 160-200 decibels of sound, while that from green crackers are limited to about 100-130 decibels.

How can one Identify Green crackers?

- Presently, three brands of green crackers are available for purchase:
 - **SWAS - Safe Water Releaser:** These crackers do not use sulphur or potassium nitrate, and thus release water vapour instead of certain key pollutants. It also deploys the use of diluents, and thus is able to control particulate matter (PM) emissions by upto 30%.
 - **STAR – Safe Thermite Cracker:** Just like SWAS, STAR also does not contain sulphur and potassium nitrate, and besides controlling particulate dust emissions, it also has lower sound intensity.
 - **SAFAL – Safe Minimal Aluminium:** It replaces aluminium content with magnesium and thus produces reduced levels of pollutants.
- All three brands of green crackers **can currently only be produced by licensed manufacturers, approved by the CSIR**. Additionally, the **Petroleum and Explosives Safety Organisation (PESO)** is tasked with certifying that the crackers are made without arsenic, mercury, and barium, and are not loud beyond a certain threshold.
- Furthermore, green crackers can be differentiated from conventional crackers in retail stores by **a green logo printed on their boxes**, along with a Quick Response (QR) coding system.

What is Petroleum and Explosives Safety Organisation?

- PESO is an office under the Department for Promotion of Industry and Internal Trade, **Ministry of Commerce and Industries**.
- It was established in 1898 as a nodal agency for **regulating safety of substances such as explosives, compressed gases and petroleum**.
- Its head office is located in **Nagpur, Maharashtra**.

What are the Concerns regarding Green Crackers?

- Since green crackers **can only be legally manufactured by firms that have signed agreements with the CSIR**, no small-scale business or cottage business house can manufacture green crackers, which coupled with a ban on traditional fireworks, would leave very many unemployed this time of the year.
- There is a **general lack of awareness amongst both the sellers and the public** on how to identify the right green crackers. In fact, experts have cautioned against purchasing green crackers from street vendors as the items may not be credible.
- It is also revealed that most customers prefer 'traditional' crackers due to a **lack of availability of green crackers**, or due to their higher prices.

Second Species of the Genus Allmania

Why in News?

Recently, **a new species of the genus Allmania** named **Allmania multiflora** has been identified.



Note:

What are the Key Highlights about the New Species?

➤ About:

- *Allmania multiflora* grows to a height of about 60 cm and is **only the second species** of this genus discovered to date.
- The **first species, *Allmania nodiflora***, was **originally published under the genus *Celosia*** as *Celosia nodiflora* in 1753. Specimens found in Ceylon (Sri Lanka) were first described as *Allmania nodiflora* in 1834.
- Shorter tepals and wider gynoeceum (parts of the flower), shorter bracts and in the diameter of the seeds are among the characteristics that distinguishes it from *Allmania nodiflora*. Flowering and fruiting occurs from May to September.
- The species is quite special from both the botanical and conservation points of view.
- *Allmania multiflora* has been so named for having a higher number of florets within an inflorescence.
- *Allmania multiflora* is an annual herb, erect, with branches arising from the base.
- The stem is **red to violet at the base and green above**.

➤ Protection Status:

- **IUCN:** Critically Endangered.

➤ Threats:

- It could be accidentally exploited by local people as a vegetable along with amaranths.
- Its habitat, granite hillocks, too faced various forms of threats today.

Great Indian Bustards (GIBs)

Why in News?

The recent sighting Great Indian Bustards (GIBs) deep in Pakistan's Cholistan desert has given rise to speculation that the endangered birds might have flown across the international border from India's Desert National Park (DNP).

What are the Key Points About Great Indian Bustard (GIB)?

➤ About:



- The Great Indian Bustard (*Ardeotis nigriceps*), the **State bird of Rajasthan**, is considered **India's most critically endangered bird**.
- It is considered the **flagship grassland species**, representing the health of the grassland ecology.
- Its population is confined mostly to **Rajasthan and Gujarat**. Small populations occur in **Maharashtra, Karnataka and Andhra Pradesh**.

➤ Threat:

- The bird is under constant **threats due to collision/electrocution with power transmission lines, hunting** (still prevalent in Pakistan), habitat loss and alteration as a result of widespread agricultural expansion, etc.

➤ Protection Status:

- **International Union for Conservation of Nature Red List (IUCN): Critically Endangered**
- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I**
- **Convention on Migratory Species (CMS): Appendix I**
- **Wildlife (Protection) Act, 1972: Schedule I**

➤ Measures taken to protect GIB:

- **Species Recovery Programme:**
 - It is kept under the species recovery programme under the **Integrated Development of Wildlife Habitats** of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- **National Bustard Recovery Plans:**
 - It is currently being implemented by conservation agencies.
- **Conservation Breeding Facility:**

Note:

- MoEF&CC, Rajasthan government and Wildlife Institute of India (WII) have also established a conservation breeding facility in **Desert National Park at Jaisalmer** in June 2019.
- The objective of the programme is to build up a captive population of Great Indian Bustards and to release the chicks in the wild for increasing the population.
- **Project Great Indian Bustard:**
 - It has been launched by the Rajasthan government with an aim of constructing breeding enclosures for the species and developing infrastructure to reduce human pressure on its habitats.
- **Eco-Friendly Measures:**
 - Task Force for suggesting eco-friendly measures to mitigate impacts of power transmission lines and other power transmission infrastructures on wildlife including the Great Indian Bustard.

What are the Key Points About Desert National Park?

- It is situated on the western border of India within **Jaisalmer & Barmer Districts** of Rajasthan.
- Great Indian Bustards, Rajasthan State animal (Chinkara) and State tree (khejri) and State flower (Rohida) are found naturally at this park.
- It was declared a **UNESCO World Heritage Site in 1980** and National Park in 1992.

New Varieties of Neelakurinji Flowers

Why in News?

Recently, **6 new varieties of Neelakurinji Flowers** have been identified in the **Kallippara hills in Santhanpara** region of Western Ghats.

- Neelakurinji Flowers are in full bloom on a vast area on the Kallippara hills in Idukki, Kerala.

What are Neelakurinji Flowers?

- **About:**
 - In Neelakurinji, '**Neela**' means blue, and '**Kurinji**' refers to the flowers.
 - At maturity, the light blue color of the flowers changes to purple bluish.

- The flowers give the '**Nilgiri Mountain Range**' its name.
- The plant is named after the famous **Kunthi River** which flows through Kerala's **Silent Valley National Park**, where the plant occurs abundantly
- It usually grows at an **elevation of 1,300-2,400m**.
- **Scientific Name:**
 - Strobilanthes Kunthiana
- **New Varieties Discovered:**
 - The types of neelakurinji flowers that have been identified from the hill ranges include:
 - **Strobilanthes Anamallai**
 - **Strobilanthes Heyneanus**
 - **Strobilanthes Pulneyensis**
 - **Strobilanthes Neoasper**
- **Habitat:**
 - All neelakurinji species are **endemic to the Shola Forest of Western Ghats**.
 - According to statistics, there are more than 40 different varieties of neelakurinji in India.
- **Flower Bloom:**
 - Flower Bloom takes place **once in 12 years** as the **pollination of flowers** needs a longer period.
 - It bloomed for the last time in 2006. The next bloom was expected to happen in 2018, but because of **forest fires**, Neelakurinji were not seen that year.
- **Other Facts:**
 - Tamil Nadu's '**Paliyan**' tribe used the Neelakurinji flowers to calculate age.
 - There are almost 250 Neelakurinji species in the world.

E-Waste Day

Why in News?

International E-Waste Day is held on October 14 every year since 2018 as an opportunity to reflect on the impacts of e-waste.

- This year's theme is '**Recycle it all, no matter how small**'.
- Roughly 5.3 billion mobile/smartphones will drop out of use in 2022, according to **non-profit Waste Electrical and Electronic Equipment (WEEE) Forum**, which started the day in 2018.

Note:

What is WEEE Forum?

- It is the world's largest multi-national centre of competence as regards operational know-how concerning the management of waste electrical and electronic equipment (or 'WEEE', for short).
- It is a **not-for-profit association of 46 WEEE producer responsibility organisations** across the world and was founded in April 2002.
- Through exchange of best practice and access to its reputable knowledge base toolbox, the WEEE Forum enables its members to improve their operations and be known as **promoters of the circular economy**.

What is E-Waste?

- E-Waste is short for Electronic-Waste and the term is **used to describe old, end-of-life or discarded electronic appliances**. It includes their components, consumables, parts and spares.
- Laws to manage e-waste have been in place in India since 2011, mandating that only authorised dismantlers and recyclers collect e-waste. **E-waste (Management) Rules, 2016** was enacted in 2017.
- **India's first e-waste clinic** for segregating, processing and disposal of waste from household and commercial units has been set-up in **Bhopal, Madhya Pradesh**.
- Originally, the **Basel Convention** (1992) did not mention e-waste but later it addressed the issues of e-waste in 2006 (COP8).
 - The **Nairobi Declaration** was adopted at COP9 of the Basel Convention on the Control of the Trans-boundary Movement of Hazardous Waste. It aimed at creating innovative solutions for the environmentally sound management of electronic wastes.

What are the Challenges Related to the Management of E-Waste in India?

- **Less Involvement of People:** A key factor in used electronic devices not being given for recycling was because consumers themselves did not do so. However, in recent years, countries around the world have been attempting to pass effective **'right to repair'** laws.
- **Involvement of Child Labor:** In India, about 4.5 lakh child laborers in the age group of 10-14 are observed to be engaged in various E-waste activities and that too without adequate protection and safeguards in various yards and recycling workshops.

- **Ineffective Legislation:** There is the absence of any public information on most State Pollution Control Boards (SPCBs)/PCC websites.
- **Health Hazards:** E-waste contains over 1,000 toxic materials, which contaminate soil and groundwater.
- **Lack of Incentive Schemes:** No clear guidelines are there for the unorganized sector to handle E-waste. Also, no incentives are mentioned to lure people engaged to adopt a formal path for handling E-waste.
- **E-waste Imports:** Cross-border flow of waste equipment into India- 80% of E-waste in developed countries meant for recycling is sent to developing countries such as India, China, Ghana, and Nigeria.
- **The Reluctance of Authorities' Involved:** Lack of coordination between various authorities responsible for E-waste management and disposal including the non-involvement of municipalities.
- **Security Implications:** End of life computers often contain sensitive personal information and bank account details which, if not deleted leave opportunity for fraud.

What are the Provisions regarding E-waste in India?

- India has a formal set of rules for electronic waste management, first announced these rules in 2016 and amended it in 2018.
 - Recently, the Ministry of Environment, Forest and Climate Change has released the **draft notification for Electronic Waste Management**.
- The Ministry of Environment, Forest and Climate Change notified the **E-Waste Management Rules, 2016** in supersession of the E-waste (Management & Handling) Rules, 2011.
- Over 21 products (Schedule-I) were included under the purview of the rule. It included Compact Fluorescent Lamp (CFL) and other mercury containing lamps, as well as other such equipment.
- For the first time, the rules brought the producers under **Extended Producer Responsibility (EPR)**, along with targets. Producers have been made responsible for the collection of E-waste and for its exchange.
- Various producers can have a separate Producer Responsibility Organisation (PRO) and ensure collection of E-waste, as well as its disposal in an environmentally sound manner.

Note:

- **Deposit Refund Scheme** has been introduced as an additional economic instrument wherein the **producer charges an additional amount as a deposit** at the time of sale of the electrical and electronic equipment and returns it to the consumer along with interest when the end-of-life electrical and electronic equipment is returned.
- The **role of State Governments** has been also introduced **to ensure safety, health and skill development of the workers** involved in dismantling and recycling operations.
- A provision of penalty for violation of rules has also been introduced.
- **Urban Local Bodies** (Municipal Committee/Council/ Corporation) have been **assigned the duty to collect and channelize** the orphan products to authorized dismantlers or recyclers.
- Allocation of proper space to existing and upcoming industrial units for e-waste dismantling and recycling.

Mission Life

Mission LiFE
Lifestyle For Environment
(Encourage P3 i.e. Pro Planet People)

Approach

- Focus on Individual Behaviours
- Co-create Globally
- Leverage Local Cultures

- Concept was introduced by Prime Minister at COP26 in Glasgow in November 2021.
- **LIFE Global Movement** invites ideas from across the world aimed at individuals, households and communities to drive climate-friendly behaviours.
- **Mission LiFE** has been launched at the Statue of Unity in Gujarat.
- To mobilise at least one billion Indians and other global citizens to take individual and collective action for conserving the environment in the **period 2022-28**.
- **Piloted by NITI Aayog and implemented by the Union Ministry of Environment, Forest and Climate Change.**

According to UNEP, if 1 out of 8 billion people worldwide adopt environment-friendly behaviours in their daily lives, global carbon emissions could drop upto 20%.

Examples Set by India

- **Swachh Bharat Mission (SBM)** led to the use of over 100 million toilets in rural India within a span of 7 years.
- **Ujjwala Scheme** increased households with LPG connections from 62% in 2015 to 99.8% in 2021.
- **Traditional Indian practices** such as adaptive architectural forms that minimise electricity consumption and dietary preference for plant-based foods and millets can serve as foundations for LiFE.

Drishhti IAS

Glaciers in the Alps Melting Faster than Ever

Why in News?

A new study revealed that, in 2022 Switzerland's glaciers have lost an **average of 6.2 % of their ice**.

What are the Findings?

- **Saharan Sand and a Huge Heatwave:**
 - Across the Alps, the preceding winter had very limited snowfall and therefore glaciers were not well insulated against the forthcoming summer melt season.
 - Spring was particularly harsh as natural atmospheric weather patterns carried Saharan dust to Europe and blanketed the Alpine landscape.
 - Since dust absorbs more solar energy than snow the now orange-tinted snow melted faster.
 - A major heat wave **saw temperature records breaking across Europe**, with parts of the UK reaching 40° Celsius for the first time.
 - The last time glaciers had an extreme melt season was in 2003, when 3.8 % of glacier ice **melted across Switzerland**.
- **Unprecedented Alps Glacier Melt:**
 - The extent of glacier melting depends on the **altitude at which it is located**, the steeper the glacier tongue is the **heavier it is covered with debris**.
 - In Switzerland, **these glacial meltwaters are used for hydropower**.
 - Austrian glaciers have also lost more glacial ice in 2022 than they have in 70 years of observations and therefore it is quite clear that severe melt has been the norm in 2022.
 - So, one consequence is that **melting glaciers help to compensate for low rainfall in times of drought**, filling reservoirs to supply the nation's energy supply.
 - Melting glaciers have **created more than 1,000 new lakes across** the mountains.
 - This year, for the first time ever, the **frozen ground (Permafrost)** that binds rocks together — was **thawing and causing almost constant rockfalls**.

Note:

What are Alps?

➤ About:

- The Alps emerged during the **Alpine orogeny (mountain-building event)**, an event that began about 65 million years ago as the **Mesozoic Era** was drawing to a close.
- Alps are **young fold mountains** with rugged relief and high conical peaks.
- They are the **most prominent of western Europe's physiographic regions**. Some 750 miles long and more than 125 miles wide at their broadest point between Garmisch-Partenkirchen, Germany, and Verona, Italy, the Alps cover more than 80,000 square miles.
- The **Alps extend north from the subtropical Mediterranean coast near Nice, France**, to Lake Geneva before trending east-northeast to Vienna, Austria. There they touch the **Danube River** and meld with the adjacent plain.
- Because of their arclike shape, the Alps separate the marine west-coast climates of Europe from the Mediterranean areas of France, Italy, and the **Balkan region**.

➤ Countries Covered:

- The Alps form part of **France, Italy, Switzerland, Germany, Austria, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Serbia, and Albania**.
- Only Switzerland and Austria **can be considered true Alpine countries**.

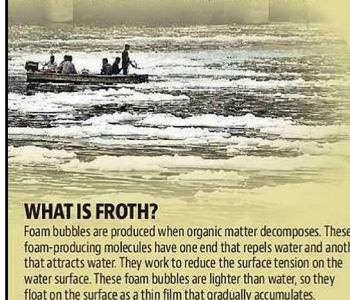
➤ Important Peaks:

- **Mont Blanc** is the highest peak in the Alps and in Europe, reaching a lofty 4,804 meters above sea level. It is located in the Graian Alps and lies within France, Switzerland, and Italy.
- **Monte Rosa** is a massif (a compact group of mountains) consisting of several peaks. The highest peak in this range (Dufourspitze) has an elevation of 4,634 meters, claiming the title of Switzerland's highest peak.
- **Dom**, which is located near Monte Rosa, Dom stands at 4,545 meters and is known as one of the "easier" tall peaks in the Alps to summit because of its straightforward routes.
- Other major peaks are Liskamm, Weisshorn, Matterhorn, Dent Blanche, Grand Combin etc.

Froth in Yamuna

River of foam cuts across Delhi

Every year, as winter sets in, thick sheets of foam blanket the Yamuna. This froth can have adverse effects if consumed, or even touched



WHAT IS FROTH?

Foam bubbles are produced when organic matter decomposes. These foam-producing molecules have one end that repels water and another that attracts water. They work to reduce the surface tension on the water surface. These foam bubbles are lighter than water, so they float on the surface as a thin film that gradually accumulates.

What causes Yamuna's froth blanket?

- Untreated sewage may contain soap/detergent particles
- Industrial run-off
- Organic matter from decomposing vegetation
- Presence of filamentous bacteria that let out surfactant molecules
- Pollutants from sugar and paper industries in UP that travel through the Hindon Canal

Health hazards

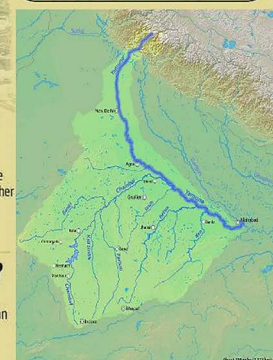
- Short-term exposure can lead to skin irritation, allergies
- Ingestion may cause gastrointestinal problems and diseases like typhoid
- Long term exposure can cause neurological issues and hormonal imbalances

The substances that pollute the Yamuna

Biological O₂ demand Standard: 3mg/l or less
BOD is a measure of the amount of oxygen required to remove waste organic matter from water in the process of decomposition by aerobic bacteria.

Dissolved O₂ demand Standard: 5mg/l or more
DOD is the amount of oxygen in aquatic environments that is accessible to fish, invertebrates, and all organisms in the water.

Faecal coliform Standard: 500-1,000 ml
Faecal Coliform: These are bacterial organisms most commonly used to monitor the removal of pathogens from wastewater treatment plants.



Yamuna River

Length: 1376 km

Source: The river Yamuna, a major tributary of river Ganges, originates from the Yamunotri glacier in Uttarakashi district of Uttarakhand.

Basin: It meets the Ganges at the Sangam (where Kumbh mela is held) in Prayagraj, Uttar Pradesh after flowing through Uttarakhand, Himachal Pradesh, Haryana and Delhi.

Important Dams: Lakhwar-Vyasi Dam (Uttarakhand), Tajewala Barrage Dam (Haryana) etc.

Important Tributaries: Chambal, Sindh, Betwa and Ken.

How can froth formation be stopped?

IN THE SHORT-TERM

- Rid Okhla pondage of water hyacinth
- Detergents must be biodegradable so they do not persist and lose their ability to cause foam

IN THE LONG TERM

- UP, Haryana, Delhi need to upgrade sewage treatment plants
- Industrial pollution to be stopped
- Increasing the flow of the river

Indian Bison (Gaur)

Why in News?

Recently, **Sri Lanka asked India to translocate 6 Indian Bisons** to reintroduce them in the island from where they became extinct by the end of 17th century.

- If the project is cleared, it would be the first such agreement between India and Sri Lanka.

What are the Important Facts about Indian Bison?

➤ About:

- The **Indian Bison or Gaur (*Bos gaurus*)** is the **tallest species of wild cattle found in India** and **largest extant bovine**.
- There are about **13,000 to 30,000 gaurs in the world** with approximately **85% of the population present in India**.

Note:

- The **first-ever population estimation exercise** of the Indian gaur carried out in the **Nilgiris Forest Division** in February 2020 estimated around **2,000 Indian gaurs to be inhabiting the division.**



➤ Geography:

- It is native to **South and Southeast Asia.**
- In **India**, they are very much prevalent in the **Western Ghats.**
 - They are primarily found in **Nagarhole National Park**, **Bandipur National Park**, **Masinagudi National Park** and **Biligirirangana Hills (BR Hills).**
- It is also found in **Burma and Thailand.**

➤ Habitat:

- They prefer **evergreen forests and moist deciduous forests.**
 - However, they can survive in **dry deciduous forests** also.
- They are **not found** in the **Himalayas** with an altitude **greater than 6,000 ft.**
 - They generally stick to the **foothills only.**

➤ Food Habits:

- The Indian Bison is a **grazing animal** and generally feeds in the **early morning and in the late evenings.**

➤ Conservation Status:

- **Vulnerable** in **IUCN Red List.**
- Included in the **Schedule I** of the **Wild Life Protection Act, 1972.**

➤ Threats:

- **Food Scarcity:** Due to the destruction in the grasslands, planting of commercially important trees, invasive plant species and indiscriminate grazing of domestic animals
- **Poaching:** For their commercial value as well as due to the high demand of gaur meat.

- **Habitat Loss:** Due to deforestation and commercial plantations.
- **Human-Animal Conflict:** Due to living in proximity with human habitations.

Giraffe

Why in News?

About 150 years ago, British colonists brought batches of northern giraffes from their other colonial possessions in Africa.

What are the Key Points About Giraffes?

➤ General:

○ Physiological Characteristics:

- Giraffe, (genus Giraffa) are any of the four species in the genus Giraffa of long-necked cud-chewing hoofed mammals of **Africa**, with long legs and **a coat pattern of irregular brown patches** on a light background.
- Giraffes are the **tallest of all land animals**; males (bulls) may exceed 5.5 metres (18 feet) in height, and the tallest females (cows) are about 4.5 metres.
- Using prehensile (**grabby**) tongues almost half a metre long, they are able to browse foliage almost six metres from the ground.
- Giraffes grow to nearly their full height by four years of age but gain weight until they are seven or eight. Males weigh up to 1,930 kg, females up to 1,180 kg.
- **Both sexes have a pair of horns**, though males possess other bony protuberances on the skull.

○ Eating Habits:

- Giraffes prefer to eat new shoots and leaves, mainly from the **thorny acacia tree.**
- Giraffes **obtain most water from their food**, though in the dry season **they drink at least every three days.**

○ Geographical Location:

- Giraffes are a **common sight in grasslands and open woodlands in East Africa.**

➤ Indian Giraffe:

- The **largest captive herd of the northern Giraffe** (29 individuals) in India is at the **Alipore Zoological Garden in Kolkata.**

Note:



drishti

- A recent genealogical study has confirmed that the individuals in this facility, at least, are most likely the **Nubian giraffes** or the **Rothschild giraffe**.
- The Nubian giraffe is the nominate subspecies of giraffe which used to be widespread everywhere in Northeast Africa. However, **95% of the population of Nubian Giraffe has declined in the past 3 decades**.
- Rothschild's giraffe is **one of the tallest subspecies**, growing up to 6m tall. Its colouring is unique compared to other giraffes as their markings stop halfway down their legs.
- **IUCN Red List Status:**
 - Nubian giraffes- Critically Endangered
 - Rothschild giraffe – Endangered

Sukapaika River

Why in News?

The Sukapaika River which stopped flowing 70 years ago, is **set to be rejuvenated** as the Odisha government has started working on its revival plan following a recent direction from the **National Green Tribunal (NGT)**.

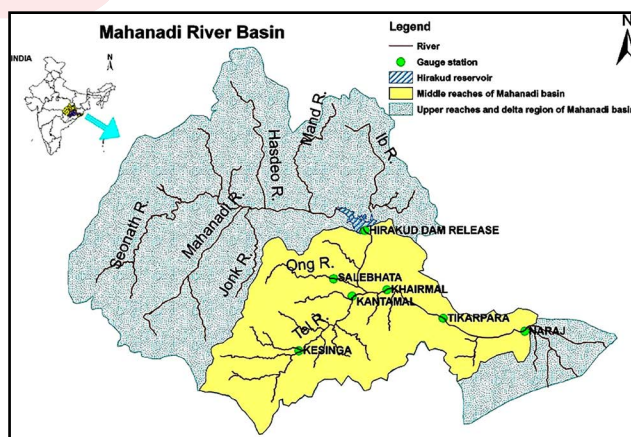
What are the Key Points of Sukapaika River?

- Sukapaika is **one of the several distributaries of the mighty Mahanadi river** in Odisha.
- It **branches away from the Mahanadi at Ayatpur village** in Cuttack district and flows for about 40 kilometres (km) before rejoining its parent river at Tarapur in the same district.
- Sukapaika river is an **important system of the Mahanadi to control floodwater** and maintain the flow in the river as well as the Bay of Bengal.

What are the Key Points of Mahanadi River?

- **About:**
 - The Mahanadi River system is the **third largest of peninsular India after Godavari and Krishna**, and the largest river of Odisha state.
 - The catchment area of the river extends to Chhattisgarh, Madhya Pradesh, Odisha, Jharkhand and Maharashtra.
 - Its basin is bounded by the Central India hills on the north, by the Eastern Ghats on the south and east and by the **Maikala range** in the west.

- **Source:**
 - It rises from a place near Sihawa, in the Dhamtari district of Chhattisgarh.
- **Major Tributaries:**
 - The Seonath, the Hasdeo, the Mand and the Ib joins Mahanadi from left whereas the Ong, the Tel and the Jonk joins it from right.
- **Major Dams/Projects on Mahanadi:**
 - **Hirakud Dam:** This is the longest dam of India.
 - Ravishankar Sagar, Dudhawa Reservoir, Sondur Reservoir, Hasdeo Bango and Tandula are other major projects.
- **Industries:**
 - Mahanadi basin, because of its rich mineral resource and adequate power resource, has a favourable industrial climate.
 - Iron and Steel plant at Bhilai
 - Aluminium factories at Hirakud and Korba
 - Paper mill near Cuttack
 - Cement factory at Sundargarh.
 - Other industries based primarily on agricultural produce are sugar and textile mills.
 - Mining of coal, iron and manganese are other industrial activities.



Blue Flag Certification

Why in News?

Recently, the Blue Flag certification has been accorded to two new beaches - **Minicoy Thundi Beach and Kadmat Beach**- both in **Lakshadweep**.

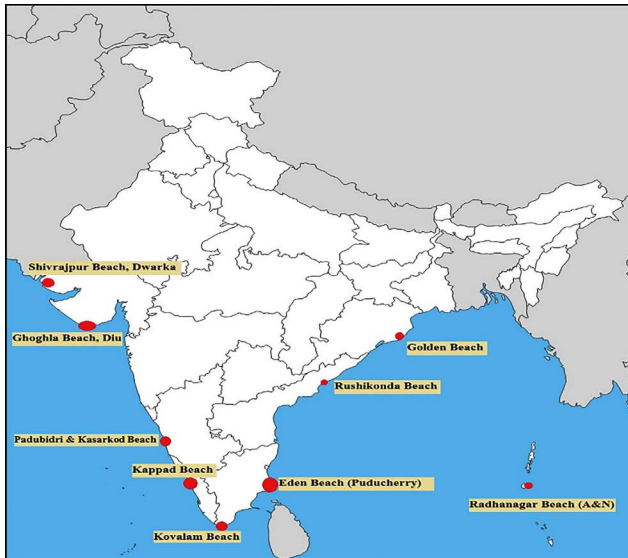
- This takes the number of beaches certified under the Blue Flag certification to 12.

Note:

What is Blue Flag Certification?

➤ About:

- It is an **internationally recognised eco-label that is accorded based on 33 criterias**. These criterias are divided into **4 major heads namely**,
 - Environmental education and information
 - Bathing water quality
 - Environmental management
 - Conservation and safety services in the beaches
- Blue Flag beaches are **considered the cleanest beaches of the world**. It is an eco-tourism model endeavouring to provide the tourists/beachgoers clean and hygienic bathing water, facilities, a safe and healthy environment and sustainable development of the area.
- It is accorded by the international jury composed of eminent members- **United Nations Environment Programme (UNEP)**, **United Nations World Tourism Organisation (UNWTO)**, Denmark-based NGO Foundation for Environmental Education (FEE) and **International Union for Conservation of Nature (IUCN)**.
- On the lines of Blue Flag certification, India has also launched its **own eco-label BEAMS (Beach Environment & Aesthetics Management Services)**.
- **Other 10 Beaches which have Received the Certification:**
 - Shivrampur (Gujarat)
 - Ghoghla (Daman & Diu)
 - Kasarkod (Karnataka)



- Padubidri beach (Karnataka)
- Kappad (Kerala)
- Rushikonda (Andhra Pradesh)
- Golden beach (Odisha)
- Radhanagar beach (Andaman and Nicobar)
- Kovalam (Tamil Nadu)
- Eden (Puducherry)

What is BEAMS?

- Beach Environment & Aesthetics Management Services comes under **ICZM (Integrated Coastal Zone Management)** project.
- This was launched by the Society of Integrated Coastal Management (SICOM) and the Union Ministry of Environment, Forest and Climate Change (MoEFCC).
- The **objectives of BEAMS program are to:**
 - Abate pollution in coastal waters,
 - Promote sustainable development of beach facilities,
 - Protect & conserve coastal ecosystems & natural resources,
 - Strive and maintain high standards of cleanliness,
 - Hygiene & safety for beachgoers in accordance with coastal environment & regulations.
- It has helped in saving 1,100 ml/year of municipal water through recycling; educating around 1,25,000 beachgoers about responsible behaviour at the beaches; providing alternate livelihood opportunities to 500 fishermen families through pollution abatement, safety and services and has also increased footfall for recreation activities at the beaches by approximately 80% leading to economic development.

Impact of Heatwaves on Children: UNICEF

Why in News?

Recently, **UNICEF (United Nations Children's Fund)** released a report titled "**Coldest Year of the Rest of Their Lives - Protecting children from the escalating impacts of heatwaves**", showing that nearly all the children across the world will be exposed to more frequent and severe heat waves by 2050.

Note:

- UNICEF is a special program of the **United Nations (UN)** devoted to aiding national efforts to improve the health, nutrition, education, and general welfare of children.

What are the Findings of the UNICEF Report?

- **Current Scenario:**
 - Around **559 million children** are exposed to high **heatwave** frequency and around 624 million children are exposed to **one of three other high heat measures** - High heatwave duration, High heatwave severity and Extreme high temperatures.
 - One in four children lives in areas where the average heatwave event **lasts 4.7 days or longer as of 2020**.
 - This percentage will **rise to over three in four children** under a low-emission scenario **by 2050**.
 - Children in southern, western and south-eastern Asia, eastern and southern Europe and northern Africa experience **heatwaves of longer duration**.
- **Future Impact**
 - The number of children exposed to high heat waves **will quadruple to over two billion** by 2050 — up from 24% of children in 2020.
 - This amounts to an increase of about 1.5 billion children.
 - Virtually every child on earth will face severe heat waves even under a **low greenhouse gas emission scenario** — with an estimated 1.7°C of warming in 2050.
 - At 2.4 degrees of warming, 94% of children will be exposed with only **small areas of southern America**, central Africa, Australasia and **Asia not exposed to high heatwave duration**.
- **Higher Vulnerability of Children:**
 - Heat Waves with longer duration pose more risks for children as they spend more time outdoors than adults for — **sports and other activities** — **putting them at greater risk for heat injury**.
- **Impact on Health:**
 - High temperatures are linked to **increased mental health problems in children** and adolescents, including post-traumatic stress disorder (PTSD) and depression.
 - Extreme heat will essentially affect children's education and future livelihoods.
 - Heatwave risks to health include — heat stroke, heat stress, allergy, **chronic respiratory conditions**, asthma, **mosquito-borne disease**, **cardiovascular disease**, **undernutrition** and diarrhoea.

Threatens Children's Safety:

- Communities are forced to search for and compete over food and water resources as pastures and household income dry up. The **resulting migration, displacement and conflict expose children to serious physical harm** and violence risks.

Note:

- In July 2022, the UN-backed agencies issued **guidelines to provide the first-ever global policy framework to protect children displaced** due to climate change.
- It contains a set of **nine principles** that address the unique vulnerabilities of children who have been uprooted.
- The principles are based on the **Convention on the Rights of the Child** and are informed by existing operational guidelines and frameworks.

What are the Recommendations?

- There is a need to ensure that the **vulnerable have the resources to adopt the critical social services** required to protect them.
- It is high time Countries must act now by:
 - **Protecting children** from climate devastation by **encouraging social services**
 - **Preparing children** to live in a climate-changed world
 - **Prioritising children** and youth in **climate finance** and resources
 - **Preventing a climate catastrophe** by reducing greenhouse gas emissions
- The 27th Conference of Parties (COP-27) to the **United Nations Framework Convention on Climate Change** must unlock progress on loss and damage, placing the resilience of children and their communities at the centre of discussions on action and support.

What are the Other Related Indices?
- **Children's Climate Risk Index: UNICEF:**
 - It **ranks countries** based on **children's exposure to climate and environmental shocks**, such as Cyclones and Heatwaves, as well as their vulnerability to those shocks, based on their access to essential services.
- **Notre Dame Global Adaptation Initiative (ND-GAIN) Index:**
 - It has shown the **impact of climate change on children across the world**.
 - It explains that the children will be impacted by food shortages, diseases and other health threats, water scarcity, or be at risk from rising water levels — or a combination of these factors.

Note:

Benefits of Biogas Why in News?

Countries around the world are turning to **biogas** and biomethane to enhance their energy security.

What is Biogas?

➤ About:

- **Biogas**, a renewable fuel produced using the **anaerobic digestion** process from organic feedstock, is primarily composed of methane (50-65%), carbon dioxide (30-40%), hydrogen sulfide (1-2.5%) and a tiny fraction of moisture.
- It contributes to all 17 of the United Nation's **Sustainable Development Goals** and can also be converted to produce numerous sustainable transportation fuels.

➤ Variants:

- **Compressed Bio Gas (CBG)**: The upgraded or high-purity biogas (after removal of unwanted components like carbon dioxide, hydrogen sulphide and moisture) compressed at 250bar pressure results in a fuel called **compressed biogas (CBG)**. This has properties similar to **compressed natural gas (CNG)** and could be directly used to power CNG engines.
 - **Drawback**: Its existence in the gaseous form, which demands bigger volumes for transportation. Therefore, it is considered more suitable to power small-sized vehicles, though heavy engines have been used for short-distance driving.
- **Liquified Bio Gas (LBG)**: If the biogas-derived methane is liquefied by cooling it at -162 degrees Celsius, the fuel thus obtained is **liquefied biogas (LBG)**. It has a higher energy density that lowers storage space requirements.
 - At atmospheric pressure, the energy density of liquid methane is roughly 600 times more than that of gaseous methane and 2.5 times greater than that of methane at 250 bar.
 - **Advantages**: It can become a viable **alternative fuel for heavy-duty road transportation** since it has a comparatively high energy density.
 - It is becoming attractive to the shipping industry in addition to being utilised in heavy-duty vehicles.

➤ Applications:

- Biogas can be converted to produce numerous sustainable transportation fuels.
- In addition to being used directly as fuel, biomethane can also be **transformed into other fuels such as hydrogen and methanol**. The primary method for producing hydrogen encourages the reforming of light hydrocarbons, particularly methane, which makes up a significant portion of biogas.
- Gasification is performed by limiting the amount of oxygen and steam present in the reaction and heating the bio-methane to high temperatures (usually over 600°C).
 - **Syngas**, a mixture of hydrogen and carbon monoxide, is created as a result of this process. The hydrogen produced after the removal of carbon monoxide could be used in fuel cells to generate power.
 - Methanol can also be generated from syngas. **Methanol** is an effective fuel; it emits less particulate matter and nitrogen oxide (NOx) than gasoline. It can be used also as a transportation fuel by blending or entirely replacing gasoline. It's more affordable than LNG.

What is the Indian Scenario regarding Biogas and Methanol?

- CBG is the only transportation fuel from biogas for which commercialisation efforts have been made.
- Currently, LBG, hydrogen and methanol are not produced from biogas in India. The main reasons are:
 - Unavailability of biogas in bulk for such derivatives,
 - Absence of infrastructure to generate and market these fuels,
 - Deficiency of modified automobile engines as well as the lack of effective. Research and development push to improve process economics.
- **Government Initiatives**: The Indian government has been encouraging private businesses to set up CBG plants and provide CBG to oil marketing companies for sale as automotive and industrial fuels under the **Sustainable Alternative Towards Affordable Transportation (SATAT) scheme** launched in 2018.
 - Further, the Indian government and **Niti Aayog** have outlined roadmaps to hasten our transition towards green fuels and promote LNG, hydrogen and methanol.



Note:

History

Highlights

- Sardar Vallabhbhai Patel
- Evolution of Coinage System in India
- Dr A. P. J. Abdul Kalam
- Lothal: World's Earliest Known Dock

Sardar Vallabhbhai Patel

Why in News?

On **National Unity Day 2022**, the Union Home Minister of India remembered **Sardar Vallabhbhai Patel** on his 147th birth anniversary saying that the latter realised the dream of a strong and united India with his farsightedness.

Why is National Unity Day Celebrated?

- National Unity Day is celebrated every year on 31st October to commemorate the birth anniversary of **Sardar Vallabhbhai Patel**. It is also known as **Rashtriya Ekta Diwas**.
 - The reason behind the celebration of this day is to **make people aware of the ideas of staying together and uplifting society**.
 - It was celebrated for the **first time in 2014**.
- Several events are organised on this day like **'Run For Unity'** - a nationwide **marathon** to increase awareness about the contribution of Sardar Patel to national integrity, **National Unity pledge**, etc.
- In 2018, the Government of India unveiled the **'Statue of Unity'** in Gujarat to mark the 143rd birth anniversary of Sardar Patel.

What is the Statue of Unity?

- The **Statue of Unity** is the **tallest statue in the world**. At 182 meters, it is 23 meters taller than **China's Spring Temple Buddha statue** and almost double the height of the **Statue of Liberty** (93 meters tall) in the US.
- In January 2020, it was added to the **'Eight Wonders' of the Shanghai Cooperation Organization (SCO)**.

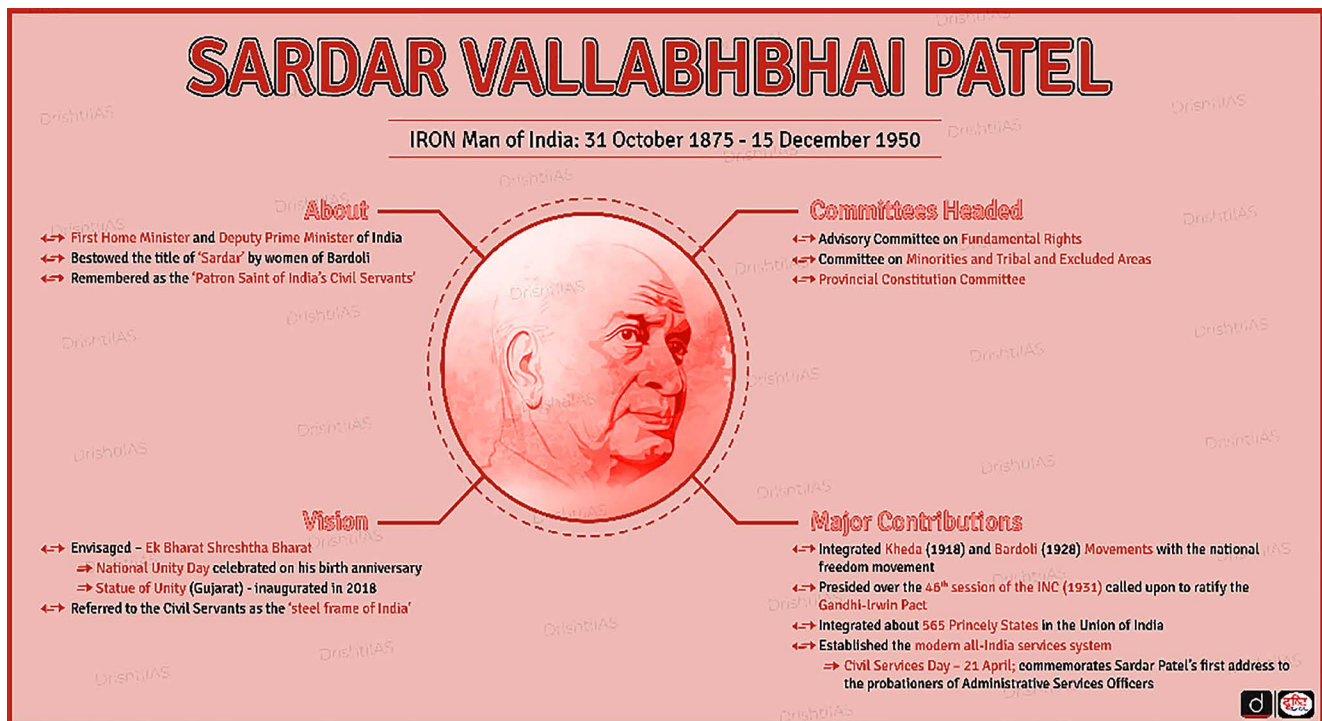
Who was Sardar Vallabhbhai Patel?

- **About:**

- He was born on 31st October 1875 in Nadiad, Gujarat.
- Sardar Patel was the **first Home Minister** and **Deputy Prime Minister of India**.
- He is recognized as the **real unifier of India** for his colossal contribution to integrate and **make India a united (Ek Bharat)** and an independent nation.
 - He requested the people of India to live together by uniting in order to create **Shresth Bharat** (Foremost India).
 - This ideology is still reflected in the **Atmanirbhar Bharat initiative** which seeks to **make India Self-Reliant**.
- He is also remembered as the **'Patron saint of India's civil servants'** as he established the modern all-India services system.
- **Role in Framing Constitution:**
 - He headed various Committees of the Constituent Assembly of India, namely:
 - Advisory Committee on **Fundamental Rights**.
 - Committee on **Minorities** and **Tribal** and **Excluded Areas**.
 - Provincial Constitution Committee.
- **Major Contributions:**
 - He **worked extensively against alcohol consumption, untouchability, caste discrimination** and for **women emancipation** in Gujarat and outside.
 - He integrated the farmer's cause in **Kheda Satyagraha (1918)** and **Bardoli Satyagraha (1928)** with the national freedom movement.
 - **Women of Bardoli bestowed the title 'Sardar'** on Vallabhbhai Patel, which means 'a Chief or a Leader'.
 - During 1930 **Salt Satyagraha** (prayer and fasting movement), Sardar Patel served three months imprisonment.

Note:

- In March **1931** Patel presided over the **Karachi session (46th session) of the Indian National Congress** which was called upon to ratify the **Gandhi-Irwin Pact**.
- **Integration of the Princely States:**
 - Sardar Patel played a key role in the **integration of about 565 princely states** into the Indian Union.
 - Few princely states like **Travancore, Hyderabad, Junagadh, Bhopal, and Kashmir** were averse to joining the state of India.
 - Sardar Patel worked tirelessly to build a consensus with the princely states but did not hesitate in employing methods of **Sama, Dama, Dand and Bhed** wherever necessary.
 - He had used force to **annex princely states of Junagadh ruled by Nawab and Hyderabad ruled by Nizam**, both of whom had wished not to merge their respective states with the Union of India.
 - Sardar Vallabhbhai Patel stitched the princely states along with British Indian territory and **prevented the balkanization of India**.
 - He is known as the **“Iron Man of India”** for playing an important role in unification and integration of Indian princely states into the Indian federation and for convincing princely states to align with the Indian Union.
- **Death:**
 - **15th December 1950** in Bombay.



Evolution of Coinage System in India

Why in News?

Recently, the Government of NCT of Delhi has appealed to the Prime Minister of India to have **images of Goddess Lakshmi and Lord Ganesh printed on the new currency notes**.

- India has a long tradition of coinage with images of gods and goddesses. The **Kushans**, who ruled till 3rd

century AD, were the **first to use the image of Goddess Lakshmi on their coins**.

What has been the History of Coinage in India?

- **Punch Marked Coins:**
 - The **first documented coinage** is deemed to start with **'Punch Marked'** coins issued between the 7th-6th century BC and 1st century AD.
 - These coins are called 'punch-marked' coins because of their **manufacturing technique**. Mostly made of silver, these bear symbols, each of which was punched on the coin with a separate punch.

Note:



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○ They are broadly classified into two periods:

- The first period is attributed to the Janapadas or small local states.
- The second period is attributed to the Imperial Mauryan period.
- The motifs found on these coins were mostly drawn from nature like the sun, various animal motifs, trees, hills etc.



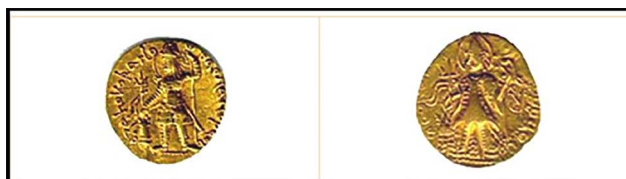
Punch Marked Coin, Silver Bentbar

➤ **Dynastic Coins:**

- The earliest of these coins relate to those of the **Indo-Greeks, the Saka-Pahlavas and the Kushans**. These coins are generally placed between the 2nd century BC and 2nd century AD.
- **Indo Greeks:**
 - Hellenistic traditions characterise the **silver coins of the Indo-Greeks**, with **Greek gods and goddesses** figuring prominently, apart from the portraits of the issuers.
- **Sakas:**
 - **The Saka coinage of the Western Kshatrapas** are perhaps the earliest dated coins, the dates being given in the Saka era which commences in AD 78.
 - The Saka era represents the **official calendar of the Indian Republic**.

○ **Kushans:**

- Kushans, who hailed from the Central Asian region depicted **Oesho (Shiva)**, moon deity **Miro** and **Buddha** in their coinage.
- Earliest Kushan coinage is generally attributed to **Vima Kadphises**.
- The Kushan coins generally depicted iconographic forms drawn from **Greek, Mesopotamian, Zoroastrian and Indian mythology**.
- **Siva, Buddha** and **Kartikeya** were the major Indian deities portrayed.



○ **Satavahana:**

- The dates of their coming into power are contentious and are variously put between **270 BC to 30 BC**.
- Their coins were **predominantly of copper and lead**; however, **silver issues are also known**.
- These coins carried the motifs of fauna like elephants, lions, bulls, horses, etc. often juxtaposed against motifs from nature like hills, tree, etc.
- The silver coins of the Satavahanas carried portraits and bilingual legends, which were inspired by the Kshatrapa types.



○ **Western Kshatrapa:**

- The legends on the coins were generally in **Greek and Brahmi**, **Kharoshti** too was used.
- The Western Kshatrap coins are **reckoned to be the earliest coins bearing dates**.
- The common copper coins are the '**bull and hill**' and the '**elephant and hill**' types.

Note:



○ Gupta:

- Gupta coinage (4th-6th centuries AD) followed the tradition of the Kushans, depicting the **king on the obverse and a deity on the reverse**; the deities were **Indian and the legends were in Brahmi**.
- The earliest Gupta coins are attributed to **Samudragupta, Chandragupta II and Kumaragupta** and their coins often commemorate dynastic succession as well as significant socio-political events, like marriage alliances, the horse sacrifice, or for that matter artistic and personal accomplishments of royal members (Lyrist, Archer, Lion-slayer etc.).



South Indian Coinage:

○ Cheras:



○ Chola:



○ Alupas of Udupi:



➤ Foreign Coins:

○ British Coins:

- **The British East India Co.** at Madras Presidency minted coins labelled as the **Three Swamy Pagoda**, which depicts **Lord Balaji** flanked by **Sridevi** and **Bhudevi** on either side.

○ Other Coins:

- Ancient India had considerable **trade links with the Middle East, Europe (Greece and Rome) as well as China**. This trade was carried out over land partly along what came to be alluded to as the silk route and partly through maritime trade.
- In South India, which had a thriving maritime trade, Roman coins even circulated in their original form, albeit slashed at times as a gesture disclaiming intrusions of foreign sovereignty.

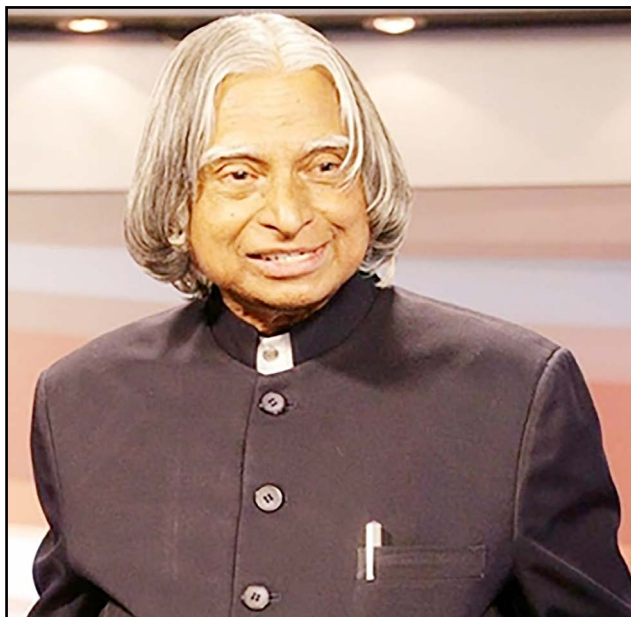


Dr A. P. J. Abdul Kalam

Why in News?

Recently, the Prime Minister paid tribute to the former **President APJ Abdul Kalam** on his 90th birth anniversary.

Note:



Who was Dr A. P. J. Abdul Kalam?

➤ About:

- Born on 15th October 1931 at Rameswaram in Tamil Nadu.
 - His birth anniversary is celebrated as the National Innovation Day and World Students' Day.
- He graduated in Science from St Joseph's College, Trichy in 1954 and specialized in Aeronautical Engineering from Madras Institute of Technology (MIT) in 1957.
- He is one of the most distinguished scientists of India with the unique honour of receiving honorary doctorates from 48 Universities and institutions from India and abroad.
- He was sworn in as India's 11th President in 2002 and completed the full term in 2007.
- He planned programmes to produce a number of successful missiles, which helped earn him the nickname "**Missile Man of India**".

➤ Awards Received:

- He was awarded the coveted civilian awards - **Padma Bhushan** (1981) and Padma Vibhushan (1990) and the highest civilian award Bharat Ratna (1997).

➤ Literary Works:

- "Wings of Fire", "India 2020- A Vision for the New Millennium", "My journey" and "Ignited Minds- Unleashing the power within India", "Indomitable Spirit", "Guiding Souls", "Envisioning an Empowered Nation", "Inspiring Thoughts" etc.

➤ Death:

- 27th July 2015 at Shillong, Meghalaya.

What has been the Contribution of Dr A. P. J. Abdul Kalam?

➤ His Contribution:

○ Pioneer in Fiberglass Technology:

- He was a **pioneer in fiberglass technology** and led a young team to initiate this effort in **ISRO** from design, development leading to the production of composites rocket motor cases.

○ Satellite Launch Vehicle (SLV-3):

- He made a significant contribution as Project Director to develop India's first indigenous Satellite Launch Vehicle (SLV-3) which successfully injected the Rohini satellite into **Near-Earth Orbit** in July 1980 and made India an exclusive member of Space Club.
- He was responsible for the evolution of ISRO's launch vehicle programme, particularly the **PSLV configuration**.

○ Indigenous Guided Missiles:

- After working for two decades in ISRO and mastering launch vehicle technologies, he took up the responsibility of developing Indigenous Guided Missiles at the DRDO.

➤ He was the Chief Executive of **Integrated Guided Missile Development Programme (IGMDP)**.

- He led to the weaponization of strategic missile systems and the **Pokhran-II nuclear tests** in collaboration with the Department of Atomic Energy, which made India a nuclear weapon State.

○ Technology Vision 2020:

- In 1998, he put forward a countrywide plan called **Technology Vision 2020**, which he described as a road map for transforming India from a less-developed to a developed society in 20 years.

➤ The plan called for, among other measures, increasing agricultural productivity, emphasising technology as a vehicle for economic growth, and widening access to health care and education.

○ Medical and Healthcare:

- APJ Abdul Kalam in collaboration with cardiologist B. Soma Raju designed a cost-effective coronary stent known as '**Kalam-Raju-Stent**' for coronary heart disease which made healthcare accessible to all.

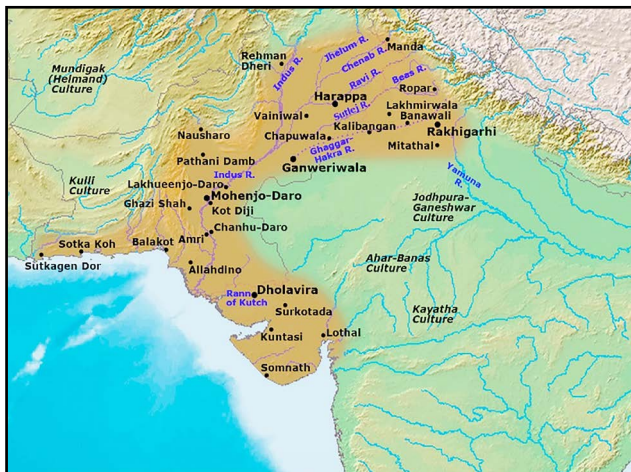
Note:

- The device led to reduction of prices of imported coronary stents in India by more than 50%.
- **Light Combat Aircraft project:**
 - He was deeply involved in the country's **Light Combat Aircraft project**.
 - He had been associated with avionics. He also became the **first Indian Head of State** to fly a fighter plane. His first **aeronautical project** led him to designing **India's first indigenous hovercraft 'Nandi'**.
- A hovercraft is a vehicle that can travel over land, water, mud and ice by lifting itself off the ground with large blowers that create an air cushion beneath the craft.
- **Others:**
 - He was passionate about **bringing rural prosperity through PURA (Providing Urban Amenities to Rural Areas)**, in which science and technology has to play a key role.
 - Based on his diverse experience he propagated the concept of **World Knowledge Platform** through which the core competencies of organizations and nations can be synergized to innovate and create solutions and products for the challenges of the 21st century.

Lothal: World's Earliest Known Dock

Why in News?

Recently, the Prime Minister has reviewed the construction of the **National Maritime Heritage Complex (NMHC) site** at Gujarat's Lothal.



What is the National Maritime Heritage Complex?

- The project began in March 2022, and is being developed at a cost of Rs 3,500 crore.
- It will have several innovative features such as **Lothal mini-recreation, which will recreate Harappan architecture and lifestyle** through immersive technology.
- It has four theme parks – Memorial theme park, Maritime and Navy theme park, Climate theme park, and Adventure and Amusement theme park.
- It will act as **a center for learning and understanding India's maritime history**.
- The NMHC is being developed with the aim of **displaying India's diverse maritime heritage and also help Lothal emerge as a world-class international tourist destination**.

Where is Lothal?

- **About:**
 - **Lothal** was one of the **southernmost sites of the Indus Valley civilization (IVC)**, located in the Bhāl region of what is now the state of Gujarat.
 - The port city is believed to have been built in **2,200 BC**.
 - Lothal was a thriving trade center in ancient times, with its trade of **beads, gems and ornaments reaching West Asia and Africa**.
 - The meaning of Lothal (a combination of Loth and (s) thal) in Gujarati is **"the mound of the dead"**.
 - Incidentally, the name of the city of **Mohenjo-daro (also part of the Indus Valley Civilisation, now in Pakistan)** means the same in Sindhi.
 - Lothal had the **world's earliest known dock**, which connected the city to an ancient course of the Sabarmati River on the trade route between **Harappan cities in Sindh and the peninsula of Saurashtra**.
- **Discovery:**
 - Indian archaeologists started the search for cities of the Harappan Civilisation post-1947 in Gujarat's Saurashtra.
 - Archaeologist SR Rao led the team which discovered **a number of Harappan sites at the time, including the port city of Lothal**.

Note:



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- Excavation work was carried out in Lothal between **February 1955 and May 1960.**

➤ **Identification of Dockyard:**

- The National Institute of Oceanography in Goa discovered **marine microfossils and salt, gypsum crystals at the site**, indicating that sea water once filled the structure and it was definitely a dockyard.
- In later excavations, ASI unearthed a **mound, a township, a marketplace, and the dock.**
- Adjacent to the excavated areas stands the archaeological site museum, where some of the **most prominent collections of Indus-era antiquities in India are displayed.**

What is the Heritage Value of Lothal?

- Lothal was nominated in April 2014 as a **UNESCO World Heritage Site**, and its application is pending on the tentative list of UNESCO.
- The excavated site of Lothal is the **only port-town of the Indus Valley Civilisation.**
- Its heritage value is comparable to other ancient port-towns around the world including,
 - Xel Ha (Peru)
 - Ostia (Port of Rome) and Carthage (Port of Tunis) in Italy
 - Hepu in China
 - Canopus in Egypt
 - Gabel (Byblos of the Phoenicians)

- Jaffa in Israel
- Ur in Mesopotamia
- Hoi An in Vietnam

- In the region, it can be compared with other Indus port towns of **Balakot (Pakistan), Khirasa (in Gujarat's Kutch) and Kuntasi (in Rajkot).**

What are the Important Sites of IVC?

- **Harappa in present Pakistan** – granaries with big platform, stone symbol of lingam and yoni, mother goddess figure, wheat and barley in wooden mortar, dice, copper scale and mirror.
- **Mohenjo-daro in present Pakistan** – bronze dancing girl, the sculpture of bearded priest, the great bath, the great granary.
- **Dholavira in Gujarat** – giant water reservoir, unique water harnessing system, stadium, dams and embankments, inscription comprising 10 large sized signs like an advertisement board.
- **Ropar in Punjab** – dog buried with human oval pit burials.
- **Balathal and Kalibangan in Rajasthan** – bangle factory, toy carts, bones of camel, decorated bricks, citadel and lower town.
- **Banawali in Haryana** – toy plough, barley grains, oval-shaped settlement, the only city with radial streets.
- **Alamgirpur in Uttar Pradesh** – impression of a cloth on a trough.



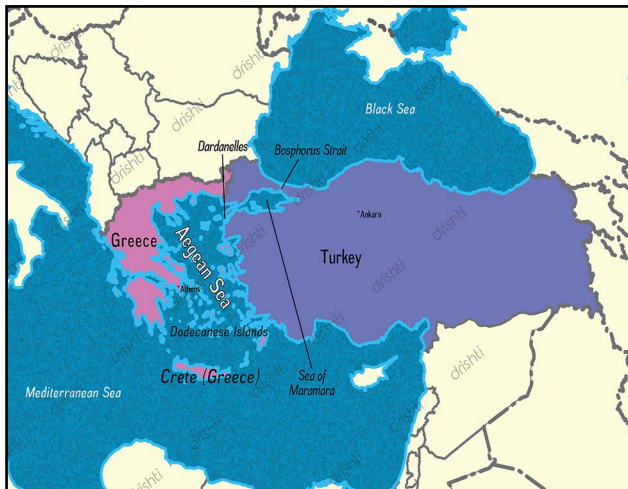
Note:

Geography

Highlights

- Aegean Sea
- Global Status of Multi-Hazard Early Warning Systems: Target G
- Cyclone Sitrang
- Red Sea
- Kuril Islands
- South China Sea
- East China Sea

Aegean Sea



Key Points

- **Physical Geography:**
 - It is an **arm of the Mediterranean Sea**. It is located in the East Mediterranean Basin with the Greek peninsula to its west and Anatolia (consisting of the Asian side of Turkey) to its east.
 - The Aegean is connected through the straits of the **Dardanelles**, the **Sea of Marmara**, and the Bosphorus to the **Black Sea**, while the island of **Crete** can be taken as marking its boundary on the south.
- **Turkey-Greece Dispute:**
 - The **Aegean Sea maritime dispute** comprises three main issues: the breadth of the territorial sea; the presence of islands; and the delimitation of the continental shelves between the two States.
 - Since 1936, Greece has claimed a 6 nautical-mile

(nm) territorial sea. Turkey also claims a 6-nm territorial sea in the Aegean. However, the **United Nations Convention on the Law of the Sea 1982 (UNCLOS)** allows States to extend their territorial sea up to 12 nm from the shore.

- Greece has adopted the Convention, but Turkey has not, holding different approaches in different regions.
- **Related Treaty: Treaty of Lausanne** of 1923.

Global Status of Multi-Hazard Early Warning Systems: Target G

Why in News?

Recently, the **United Nations Office for Disaster Risk Reduction (UNDRR)** and the **World Meteorological Organization (WMO)** released a report titled **Global Status of Multi-Hazard Early Warning Systems - Target G**, which warns that half of the countries globally are not protected by **Multi-Hazard Early Warning Systems (MHEWS)**.

- The report has been released to mark the **International Day for Disaster Risk Reduction (13th October)**.
- The analysis was made with data from the targets outlined in The **Sendai Framework (2015-2030)**. The framework is a global blueprint for disaster risk reduction and prevention.
 - Of the seven targets in the framework, **Target G** aims to “substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to the people by 2030.

Note:

What is International Day for Disaster Risk Reduction?

- The International Day for Disaster Risk Reduction was **started in 1989, after a call by the United Nations General Assembly** for a day to promote a global culture of risk-awareness and disaster reduction.
- In 2015 at the **Third UN World Conference on Disaster Risk Reduction in Sendai, Japan**, the international community was reminded that disasters hit hardest at the local level with the potential to cause loss of life and great social and economic upheaval.

What are the Early Warning Systems?

- Early warning systems are a proven **means to reduce harm to people and damage to assets ahead of impending hazards**, including **storms, tsunamis, droughts**, and heatwaves, to name a few.
- Multi-hazard early warning systems address **several hazards that may occur alone, simultaneously, or cascadingly**.
- Many systems only cover one type of hazard - like floods or cyclones.

What are the Findings?

- **Failure at Investment:**
 - The world is failing to invest in protecting the lives and livelihoods of those on the front line.
 - Those who have done the least to cause the climate crisis are paying the highest price.
 - LDCs (Least developed countries), SIDS (Small Island Developing States), and countries in Africa, require the most investment to increase early warning coverage and adequately protect themselves against disasters.
 - Pakistan is dealing with its worst recorded climate disaster, with nearly 1,700 lives lost. Despite this carnage, the death toll would have been much higher **if not for early warning systems**.
- **Significant Gaps:**
 - Only half of the countries globally have MHEWS.
 - The Number of recorded disasters has increased five-fold, driven in part by human-induced climate change and more extreme weather. This trend is expected to continue.
 - Less than half of the Least Developed Countries and only one-third of Small Island Developing States have a multi-hazard early warning system.

➤ Humanity is in the Danger Zone:

- As ever-rising greenhouse gas emissions are supercharging extreme weather events across the planet, **climate disasters are hurting countries and economies like never before**.
- Increasing calamities are costing lives and hundreds of billions of dollars in loss and damage.
- Three times more people are displaced by climate disasters than war and half of humanity is already in the danger zone.

What are the Recommendations?

- Called on all countries to invest in early warning systems.
- As climate change causes more frequent, extreme, and unpredictable weather events, investment in **early warning systems that target multiple hazards is more urgent than ever**.
- This is because of the need to warn not only against the initial impact of disasters, but also **second and third-order effects**. Examples include soil liquefaction following an earthquake or a landslide, and disease outbreaks following heavy rainfall.

What are India's Efforts in Managing Disaster?

- **Establishment of National Disaster Reaction Force (NDRF):**
 - India has increasingly mitigated and responded to all types of disasters, including with the establishment of its **National Disaster Reaction Force (NDRF)**, the world's largest rapid reaction force dedicated to disaster response.
- **India's Role as a Foreign Disaster Relief:**
 - India's foreign humanitarian assistance has increasingly included its military assets, primarily deploying naval ships or aircraft to deliver relief.
 - In line with its diplomatic policy of **"Neighbourhood First,"** many of the recipient countries have been in the region of South and Southeast Asia.
- **Contribution to Regional Disaster Preparedness:**
 - Within the context of the **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)**, India has hosted DM Exercises that allow NDRF to demonstrate for counterparts from partner states the techniques developed to respond to various disasters.

Note:



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- Other NDRF and Indian Armed Forces exercises have brought India's first responders into contact with those from states in the **South Asian Association for Regional Cooperation (SAARC) and the Shanghai Cooperation Organisation (SCO)**.

➤ **Managing Climate Change related Disaster:**

- India has adopted the **Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals (2015-2030), and the Paris Agreement** on Climate Change, all of which make clear the connections among DRR, Climate Change Adaptation (CCA), and sustainable development.

Cyclone Sitrang

Why in News?


Bangladesh has been devastated by Cyclone Sitrang, which slammed into densely-populated, low-lying areas.

- Named by Thailand, Sitrang is the **first tropical cyclone** of the post-monsoon season of 2022.
- In 2018, Titli was the last October cyclone in the Bay of Bengal.

What are the Tropical Cyclones?


- A **tropical cyclone** is an **intense circular storm that originates over warm tropical oceans** and is characterized by low atmospheric pressure, high winds, and heavy rain.
- A **characteristic feature of tropical cyclones is the eye**, a central region of clear skies, warm temperatures, and low atmospheric pressure.
- Storms of this type are called **hurricanes in the North Atlantic** and eastern Pacific and typhoons in SouthEast Asia and China. They are called tropical cyclones in the southwest Pacific and Indian Ocean region and Willy-willies in north-western Australia.
- Storms rotate counterclockwise in the northern hemisphere** and clockwise in the southern hemisphere.
- The conditions favourable for the formation and intensification of tropical storms are:
 - Large sea surface with temperature higher than 27° C.
 - Presence of the **Coriolis force**.
 - Small variations in the vertical wind speed.

- A pre-existing weak low- pressure area or low-level-cyclonic circulation.
- Upper divergence above the sea level system.



CYCLONE

Cyclones are rapid **inward** air circulation around a **low-pressure** area.

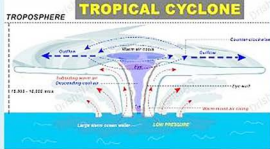


Cyclone v/s Anticyclone

Pressure System	Pressure Condition at the Center	Pattern of Wind Direction	
		Northern Hemisphere	Southern Hemisphere
Cyclone	Low	Anticlockwise	Clockwise
Anticyclone	High	Clockwise	Anticlockwise

Classification

- Tropical Cyclones;** originate between the **Tropics of Capricorn and Cancer**
- Extra Tropical/ Temperate Cyclones;** originate in the **Polar Regions**



Conditions for Formation

- Large sea surface with temperature >27° C.
- Presence of the **Coriolis force**
- Small variations in the vertical wind speed
- A pre-existing weak low- pressure area
- Upper divergence above the sea level system

Nomenclature

- Nodal Authority - **World Meteorological Organization (WMO)**
- Indian Ocean Region - **Bangladesh, India, Maldives, Myanmar, Oman, Pakistan, Sri Lanka and Thailand** contribute to naming cyclones that occur in this region.

Different Names for Tropical Cyclones

- Typhoons** - Southeast Asia and China
- Hurricanes** - North Atlantic and eastern Pacific
- Tornados** - West Africa and southern USA
- Willy-willies** - Northwest Australia
- Tropical Cyclones** - Southwest Pacific and Indian Ocean

Cyclones in India

- Bi-annual Cyclone Season** - March to May and October to December
- Recent Cyclones - **Tauktae, Vayu, Nisarga and Mekanu** (in Arabian Sea) and **Asani, Amphan, Fani, Nivar, Bulbul, Titli, Yaas and Sitrang** (in Bay of Bengal)

How do Tropical Cyclones Form?

- The development cycle of tropical cyclones may be divided into three stages:
 - Formation and Initial Development Stage:**
 - The formation and initial development of a cyclonic storm depends upon the transfer of water vapour and heat from the warm ocean to the overlying air, primarily by evaporation from the sea surface.
 - It encourages formation of massive vertical cumulus clouds due to convection with condensation of rising air above the ocean surface.
 - Mature Stage:**
 - When a tropical storm intensifies, the air rises in vigorous thunderstorms and tends to spread out horizontally at the tropopause level. Once air spreads out, a positive pressure at high levels is produced, which accelerates the downward motion of air due to convection.

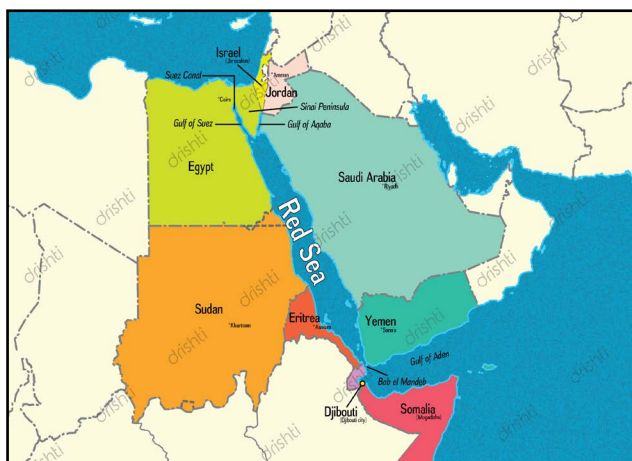
Note:



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- With the inducement of subsidence, air warms up by compression and a warm 'Eye' (Low pressure centre) is generated. The main physical feature of a mature tropical cyclone in the Indian Ocean is a concentric pattern of highly turbulent giant cumulus thundercloud bands.
- **Modification and Decay:**
 - A tropical cyclone begins to weaken in terms of its central low pressure, internal warmth and extremely high speeds, as soon as its source of warm moist air begins to ebb or is abruptly cut off.

Red Sea



Key Points

- **Physical Geography:**
 - An inlet of the Indian Ocean between Africa and Asia. One of the most saline bodies of water in the world.
 - **Bordering Countries:** Egypt, Saudi Arabia, Yemen, Sudan, Eritrea and Djibouti.
 - Connected to the Indian ocean in south **through the Bab el Mandeb strait and the Gulf of Aden.**
 - In the north are the **Sinai Peninsula, the Gulf of Aqaba, and the Gulf of Suez** (leading to the Suez Canal).
 - Occupies **a part of Great Rift Valley** (Afro-Arabian Rift Valley).
- **Recent Related Events:**
 - **Conflict in Yemen** (Between the internationally recognized government, which is backed by a

Saudi-led military coalition, and Houthi rebels supported by Iran).

- **Suez Canal jam.**
- **First Joint Naval Exercise: US, UAE, Bahrain and Israel**

Kuril Islands



Key Points

- **Physical Geography:**
 - Kuril Islands are stretched from the Japanese island of Hokkaido to the southern tip of Russia's Kamchatka Peninsula separating Okhotsk Sea from the North Pacific ocean.
 - It consists of 56 islands and minor rocks. The chain is part of the belt of geologic instability circling the Pacific (Ring of Fire) and contains at least 100 volcanoes, of which 35 are still active, and many hot springs.
 - Earthquakes and tidal waves are common phenomena over these islands.
- **Russia-Japan Dispute:**
 - The Kuril Islands dispute between Japan and Russia is **over the sovereignty of South Kuril Islands.**
 - The South Kuril Islands **comprise Etorofu island, Kunashiri island, Shikotan Island and the Habomai island.**
 - These islands are claimed by Japan but occupied by Russia as the successor state of the Soviet Union.
 - Japan calls the Islands as Northern Territories and Russia as the South Kuril.

Note:

South China Sea



Key Points

- **Physical Geography:**
 - An arm of the western Pacific Ocean that borders the Southeast Asian mainland.
 - **Bordered by** Brunei, Cambodia, China, Indonesia, Malaysia, the Philippines, Singapore, Taiwan, Thailand and Vietnam.
 - It is **connected by the Taiwan Strait with the East China Sea** and **by the Luzon Strait with the Philippine Sea** (both marginal seas of the Pacific Ocean).
 - Comprise three archipelagoes, namely, the **Spratly Islands, Paracel Islands, Pratas Islands and Macclesfield's Bank and Scarborough Shoal.**
- **Dispute:**
 - **China's Nine Dash Line:** Defines area claimed by China- by far the largest portion of the Sea.
 - **Scarborough Shoal:** Claimed both by the Philippines and China (known as Huangyan Island in China).
 - **Spratlys:** Occupied by claimants, which consist of **Taiwan, Vietnam, the Philippines, China and Malaysia.**
 - **Paracel Islands:** Subject of overlapping claims by **China, Vietnam and Taiwan.**
 - **Island Chain Strategy:** A geographical security concept crafted by the United States in the 1940s to deter China and the Soviet Union's maritime ambitions.

Recent Related Events:

- **US' Indo-Pacific Strategy**
- **BrahMos Export to Philippines**
- **Australia, the UK and the US (AUKUS) Grouping.**
- **First in-Person Meeting of Quad Countries**
- **28th edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX)**
- **China's New Maritime Regulations for Foreign Ships**
- **UNSC Meet on Maritime Security**

East China Sea



Key Points:

- **Physical Geography:**
 - A **part of the Pacific Ocean** and is a marginal sea in the east of China.
 - **Bordering Countries:** South Korea, Japan, the Republic of China (Taiwan) and the People's Republic of China.
 - Towards the south of it is the **South China Sea** and to the west is the **Asian continent.**
 - **Connects with the Sea of Japan through the Korea Strait** and **opens to the north into the Yellow Sea.**
- **Recent Related Event:**
 - **Contested Senkaku/Diaoyu Islands:** Tensions **between China and Japan** have risen over the contested Senkaku/Diaoyu islands that lies in this sea.



Note:

Security

Highlights

- Agni Prime
- Launch Vehicle Mark 3
- Garuda VII
- UNSC Counter-Terrorism Committee Meeting
- Chief of Defence Staff

Agni Prime

Why in News?

Recently, **Defence Research and Development Organisation (DRDO)** successfully test-fired indigenously-developed new generation **medium-range ballistic missile Agni Prime (Agni-P)** from the APJ Abdul Kalam Island at Odisha coast.

What is Agni Prime?

- It is a two-stage canisterised missile.
- It is the latest and sixth variant of the Agni series missiles (under **IGMDP - Integrated Guided Missile Development Program**).
- With multiple independently targetable re-entry vehicles, the missile is **capable of delivering a number of warheads** at separate locations at a distance of 1,000- 2,000 km.
- The 10.5 metre tall missile with a diameter of 1.2 metre can carry **warheads up to 1.5 tonne**.
- It can perform high maneuvers while homing in on targets.
- These missiles will be inducted in the armed forces after couple of user associated launches
- It has a **dual redundant navigation and guidance system**.
- The Agni-P missile would further strengthen India's credible deterrence capabilities.

What is the Other Agni Class of Missiles?

- They are the mainstay of India's nuclear launch capability.
- Range of other Agni Missiles:
 - **Agni I:** Range of 700-800 km.

- **Agni II:** Range more than 2000 km.
- **Agni III:** Range of more than 2,500 Km
- **Agni IV:** Range is more than 3,500 km and can fire from a road mobile launcher.
- **Agni-V:** The longest of the Agni series, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km.

What is IGMDP (Integrated Guided Missile Development Program)?

- It was conceived by Dr. A.P.J. Abdul Kalam to enable India attain self-sufficiency in the field of missile technology. It was approved by the Government of India in 1983 and completed in March 2012.
- The 5 missiles (P-A-T-N-A) developed under this program are:
 - **Prithvi:** Short-range surface-to-surface ballistic missile.
 - **Agni:** Ballistic missiles with different ranges, i.e., Agni (1,2,3,4,5)
 - **Trishul:** Short-range low-level surface to air missile.
 - **Nag:** 3rd generation anti-tank missile.
 - **Akash:** Medium-range surface-to-air missile.

Launch Vehicle Mark 3

Why in News?

Recently, the **Indian Space Research Organisation's (ISRO)** heaviest rocket **Launch Vehicle Mark 3 (LVM3 or GSLV Mark 3)** has successfully orbited 36 satellites of **U.K.-based OneWeb**.

- OneWeb is a global communications network powered by a constellation of 648 Low Earth Orbit (LEO) satellites.

Note:

What is LVM 3?

➤ About:

- The LVM3-M2 mission is a dedicated commercial mission for a foreign customer OneWeb, through **NewSpace India Limited (NSIL)**, a Central Public Sector Enterprise (CPSE).
- It is the first multi-satellite mission with 36 OneWeb Satellites to the LEO as the heaviest Payload mass of 5,796 kg. of LVM3 till date.
- This newest rocket is capable of **launching 4,000-kilogram class of satellites into GTO (Geosynchronous Transfer Orbit)** and 8,000 kgs of payloads into LEO.
- It is a **three-stage launch vehicle consisting of two solid propellant S200 strap-ons** on its sides and core stage comprising L110 liquid stage and C25 cryogenic stage.

➤ Features:

- First Commercial Mission of LVM3
- First launch of LVM3 to LEO
- First Indian rocket with six-ton payload
- First NSIL Mission with LVM3
- First OneWeb Mission with NSIL/Department of Space.

➤ Technical Achievements:

- Handling of multiple satellite separation events
- Increased nominal mission duration
- Ensuring safe separation distance through C25 (cryo) stage re-orientation & velocity addition
- Ensuring data availability for entire mission duration
- Realisation of new payload adaptor and interface ring for the satellites dispenser

What is OneWeb Constellation?

- OneWeb Constellation operates in a LEO Polar Orbit Satellites are arranged **in 12 rings (Orbital planes) with 49 satellites in each plane.**
- The orbital planes are inclined to be near polar (87.9 Deg.)
- The orbital planes are 1200 km above the Earth. Each satellite completes a full trip around the earth every 109 minutes.
- The earth is rotating underneath satellites, so they will always be flying over new locations on the ground.

What are other Launch Vehicles Developed by ISRO?

- **Satellite Launch Vehicle (SLV):** The first rocket developed by ISRO was simply called SLV, or Satellite Launch Vehicle.
 - It was followed by the Augmented Satellite Launch Vehicle or ASLV.
- **Augmented Satellite Launch Vehicle (ASLV):** SLV and ASLV both could carry small satellites, weighing up to 150 kg, to lower earth orbits.
 - ASLV operated till the early 1990s before PSLV came on the scene.
- **Polar Satellite Launch Vehicle (PSLV):** PSLV's first launch was in 1994, and it has been ISRO's main rocket ever since. Today's PSLV, however, is vastly improved and several times more powerful than the ones used in the 1990s.
 - It is the first Indian launch vehicle to be equipped with liquid stages.
 - PSLV is the most reliable rocket used by ISRO to date, with 52 of its 54 flights being successful.
 - It successfully launched two spacecraft – **Chandrayaan-1 in 2008 and Mars Orbiter Spacecraft in 2013** – that later travelled to Moon and Mars respectively.
- **Geosynchronous Satellite Launch Vehicle (GSLV):** GSLV is a much more powerful rocket, meant to carry heavier satellites much deeper into space. To date, GSLV rockets have carried out 18 missions, of which four ended in failure.
 - It can take 10,000 kg of satellites to lower the earth's orbits.
 - The indigenously developed Cryogenic Upper Stage (CUS), forms the third stage of GSLV Mk II.
 - Mk-III versions have made ISRO entirely self-sufficient in launching its satellites.
 - Before this, it used to depend on the European Ariane launch vehicle to take its heavier satellites into space.
 - GSLV Mark-III was used to launch the **Chandrayaan-2 mission** to the moon in 2019, which was the first operational flight of the rocket.
 - ISRO has renamed the **GSLV Mark -III as Launch Vehicle Mark-III.**

Note:

- A GSLV – for the Geostationary Orbit (GEO) – will continue to be called so. The LVM3 will go everywhere —GEO, Medium Earth orbit (MEO), LEO, and missions to the moon, sun.

Garuda VII

Why in News?

Indian Air Force (IAF) and French Air and Space Force (FASF) are participating in 'Garuda VII' at Air Force Station Jodhpur.

- It is being **hosted by India for the fourth time** so far. What is Garuda VII?
- **About:**
 - Garuda VII is the **seventh edition of the bilateral air exercise between India and France** that is taking place after a gap of two years.
 - The first, third and fifth editions were conducted in India in 2003, 2006 and 2014 at Air Force Stations Gwalior, Kalaikunda and Jodhpur, respectively.
 - In this exercise, FASF will participate with four **Rafale fighter aircraft, one A-330 Multi Role Tanker Transport (MRTT) aircraft** and a **contingent of 220 personnel**.
 - The IAF is participating with **Su-30 MKI, Rafale, Light Combat Aircraft (LCA) Tejas** and **Jaguar** fighter aircraft, as well as the **Light Combat Helicopter (LCH)** and **Mi-17** helicopters.
 - The IAF contingent will also include Combat Enabling Assets like **Flight Refueling Aircraft, Airborne Warning & Control System (AWACS)** and **Airborne Early Warning and Control (AEW&C)**.
- **Significance:**
 - This joint exercise will provide a platform for both the countries to **enhance operational capability and interoperability**, while also sharing best practices.
 - Participation of the IAF and FASF in this exercise will promote **professional interaction, exchange of experiences** and **enhancement of operational knowledge, besides strengthening bilateral relations** between the two countries.

What are the Other Defence Exercises?

- **Varuna - Naval exercise**
- **Desert Knight-21 - Air exercise**
- **Shakti - Army exercise.**

UNSC Counter-Terrorism Committee Meeting

Why in News?

Recently, India has hosted a special meeting of the **United Nations Security Council's Counter Terrorism Committee (CTC)** to discuss **terror-financing through crypto-currency** and **use of drones** in the new-age terrorism.

- This will be the first such meeting of the UNSC-CTC in India since its establishment in 2001. The Permanent Representative of India (Ruchira Kamboj) to the **UN (United Nations)** serves as the Chair of the CTC for 2022.
- **Theme:** Countering the use of new and emerging technologies for terrorist purposes.

What is UNSC-CTC?

- It was established by **Security Council resolution 1373** which was adopted unanimously on 28th September 2001 in the wake of the **9/11 terror attacks in the US**.
- **The Committee comprises all 15 Security Council member.**
 - **Five permanent members:** China, France, Russian Federation, the United Kingdom, and the United States, and **ten non-permanent members** elected for two-year terms by the General Assembly.
- The Committee was **tasked with monitoring implementation of resolution 1373** which requested countries to implement **a number of measures aimed at enhancing their legal and institutional ability** to counter terrorist activities at home and around the world.
- This includes taking steps to **criminalize the financing of terrorism, freezing any funds related to persons involved in acts of terrorism, deny all forms of financial support for terrorist groups**, suppress the provision of safe haven, sustenance or support for terrorists and share information with other governments on any groups practicing or planning terrorist acts.

What are the Highlights of the Meet?

- India **listed five points for the consideration** of the CTC,
 - Effective and sustained efforts to counter terror-financing.

Note:



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- Normative efforts of the UN need to be coordinated with other fora like the **Financial Action Task Force (FATF)**.
- Make sure that the Security Council's sanctions regime is not rendered ineffective because of political reasons.
- International cooperation and concerted actions against terrorists and their sponsors including the dismantlement of terrorist safe havens, etc. are critical imperatives.
- Recognise these linkages and **strengthen multilateral efforts to break against terrorism's nexus** with a transnational organised crime like arms and illicit drug trafficking.

What are Emerging Challenges for India?

- Use of emerging technologies for spreading terror is **an issue of increasing concern across the globe**.
- While one of the terrorists of 26/11 strike was captured alive, prosecuted, and convicted by the **Supreme Court** in India, the key **conspirators and planners of the 26/11 attacks continue to remain protected and unpunished**.
- China's putting a hold on UNSC sanctions against Pakistan-based terrorists on multiple occasions weaken the Security Council to act in some cases.
- Over the years, terrorist groups have diversified their funding portfolio. They have also begun to exploit the anonymity of new and emerging technologies such as virtual currencies for fund-raising and finances.
- Pakistan was put on the FATF's so-called grey list in June 2018 for a lax regime in countering money laundering and terror funding. The **FATF removed Pakistan after more than four years at the plenary in October 2022**.
 - Discussion over the delisting of Pakistan from last year coincided with a trend of rising terror attacks in Kashmir.

What is Terrorism?

➤ About:

- Any person who commits an offense, with the purpose of the conduct is to intimidate a population or to compel a Government or an international organization to do or abstain from doing any act, which causes:
 - Death or serious bodily injury to any person; or
 - Serious damage to public or private property, including a place of public use, a State or

government facility, a public transportation system, an infrastructure facility or the environment; or

- Damage to property, places, facilities, or systems resulting in or likely to result in a major economic loss.

➤ Indian Initiatives to Tackle Terrorism:

- In the wake of the terror attack, **several steps were initiated to streamline the security set-up**.
- Coastal **security was given high priority**, and it is with the Navy/Coast Guard/marine police.
- A specialised agency to deal with terrorist offences, the **National Investigation Agency**, was set up and has been functioning from January 2009.
- The **National Intelligence Grid (NATGRID)** has been constituted to create an appropriate database of security-related information.
- Four new operational hubs for the **National Security Guard** have been created to ensure rapid response to terror attacks.
- The **Multi-Agency Centre**, which functions under the Intelligence Bureau, was further strengthened and its activities expanded.
- The Navy constituted a **Joint Operations Centre to keep vigil over India's extended coastline**.

➤ Global Efforts:

- The **United Nations Office of Counter-Terrorism (UNOCT)** leads and coordinates an all-of-UN approach to prevent and counter-terrorism and violent extremism.
 - UN Counter-Terrorism Centre (UNCCT) under UNOCT, **promotes international cooperation in the fight against terrorism** and supports the Member States in implementing the Global Counter-Terrorism Strategy.
- The **Terrorism Prevention Branch (TPB)** of the **United Nations Office on Drugs and Crime (UNODC)** plays a significant role in international efforts.
 - It works to assist the Member States, upon request, with the ratification, legislative incorporation and implementation of the universal legal framework against terrorism.
- The **Financial Action Task Force (FATF)** which is a global money laundering and terrorist financing watchdog, sets international standards that aim to prevent these illegal activities and the harm they cause to society.

Note:



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Chief of Defence Staff

Chief of Defence Staff

General Anil Chauhan (Appointed on September 30, 2022)

- History**
 - Recommended by:
 - K. Sridharanagopal Committee 1993
 - Lt General D.B. Shekhar Committee 2015
 - First CDS of India: General Bipin Rawat (Appointed on January 1, 2020)
- Qualification**
 - Any serving or retired Lieutenant General, Air Marshal and Vice Admiral
 - Age should be below 62 years on the date of his appointment
- Appointment**
 - Appointed by Appointments Committee of the Cabinet
 - Holds office for 3 years, or until the age of 63, whichever comes first
- Provisions After Retirement**
 - He will not be eligible to hold any government office
 - No private employment without prior approval for a period of 3 years
- Role**
 - Permanent Chairman of the Chiefs of Staff Committee (COSC) and Secretary of the Department of Military Affairs (DMA)
 - Head of the Integrated Defence Staff
 - Member of:
 - National Security Council
 - Nuclear Command Authority
 - Defence Cyber Agency
 - Defence Space Agency
 - Defence Acquisition Council
 - Defence Planning Committee
 - CDS will not exercise any military command, including over the three service chiefs, to provide impartial advice to the political leadership
- Responsibilities**
 - Provide single-point military advice to government
 - Be in management of country's strategic resources & nuclear arsenal
 - Bring synergy among Army, Navy & Air Force by resolving inter-service doctrinal, planning, procurement & operational problems
 - Streamline long-term defence planning & procurement process
 - Integrate Service Headquarters with defence ministry & reduce civil-military divide

Other Countries with the Post of CDS

ITALY FRANCE CHINA SPAIN UK CANADA JAPAN



Note:

Ethics

Highlights

- People Rights Vs Animal Welfare

People Rights Vs Animal Welfare

Why in News?

In view of rising cases of stray dogs menace, the **Supreme Court of India said that a balance has to be maintained** between the safety of people and animal rights.

- The court also **suggested that people who feed stray dogs** could be made responsible for vaccinating them and bearing costs if somebody is attacked by the animal.

What is the Need to maintain a Balance between People Rights and Animal Welfare?

- **To Address the Fundamental Issue:**
 - This **issue raises even more a fundamental issue** regarding rights of wild animals within the society dominated by human beings in general and within the framework of the Constitution of India in particular.
- **Recognition in Hindu Texts:**
 - **Ancient Hindu texts have recognized the rights of animals**, birds and every living creature and regarded every living being as having emerged from the same divine power as humans, thereby deserving due respect, love and affection.
 - India has a culture that promotes tolerance and respect for all life forms. Hindus regard cows as their sacred animal.
- **Punishing Animals is Wrong:**
 - During ancient times **some civilizations punished animals for wrongs committed by them**. But with time, the argument relating to Moral agency evolved and it was realized that punishing animals was wrong, since they **lacked the rationality to distinguish right from wrong** and thus punishment would serve no use.

- Thus, **laws evolved and animals (like minors and persons of unsound mind) were held to be bearer of interests** that needed to be safeguarded by the law sans any obligation to perform any corresponding duties.
- The **present legal regime penalizes pet owners** for any damage resulting from the negligent handling of their pet.

What are the Related Judgements?

- **Animal Welfare Board of India v. Nagaraja (2014):**
 - In this case, while striking down the practice of Jallikattu (bull-wrestling) and bullock cart racing in the Indian states of Tamil Nadu and Maharashtra, respectively, the **Supreme Court had ruled that the right to dignity and fair treatment** as enshrined in and arising out of **Article 21 of India's Constitution is not confined to human beings alone, but animals as well**.
- **Other Judgements:**
 - In July 2018 the Uttarakhand High Court and in June 2019, Judge Rajiv Sharma of the Punjab and Haryana High Court observed that **animals have a distinct legal persona with corresponding rights, duties, and liabilities** of a living person and subsequently declared all the citizens throughout their to be persons in loco parentis as the human face for the welfare/protection of animals.
 - All citizens of Uttarakhand and Haryana were declared to have legal responsibilities and functions similar to those of a parent vis-à-vis minor children for the welfare and protection of animals within their respective States.

What is the Constitutional Protection for Animal Rights?

- According to the Indian Constitution, it is everyone's responsibility to care for and preserve the country's

Note:



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natural resources, such as its forests, lakes, rivers, and animals.

- However, many of these provisions come in the **Directive Principles of State Policy (DPSP)** and **Fundamental Duties** – which cannot be enforced unless there is statutory backing.
- **Article 48 A states** that the State shall endeavour to protect and improve the environment and safeguard the forests and wildlife of the country.
- **Article 51A(g) states** it to be a duty of every citizen of India “to protect and improve the natural environment including forests, lakes, rivers, and wildlife, and to have compassion for living creatures.”
- Further, the **State and Concurrent List have been assigned** the following items about animal rights.
- The States are given the authority to “preserve, maintain and improve stock and prevent animal diseases and enforce veterinary training and practice,” according to State List Item 14.
- The Concurrent List contains legislation that both the Centre and the States may pass
 - “Prevention of animal cruelty,” which is mentioned in item 17.
 - “Protection of wild animals and birds” which is mentioned as item 17B.

What are the Important Laws in India for the Protection of Animals?

➤ **Indian Penal Code (IPC):**

- The Indian Penal Code (IPC) 1860 is the **official criminal code of India which covers all substantive aspects of criminal law.**
- Section 428 and 429 of the IPC provides for punishment of all acts of cruelty such as killing, poisoning, maiming or rendering useless of animals.

➤ **The Prevention of Cruelty to Animals Act of 1960:**

- The objective of the Act is to **prevent the infliction of unnecessary pain** or suffering on animals and to amend the laws relating to the prevention of cruelty to animals.
- The **Act defines “animal” as any living creature** other than a human being.

➤ **Wildlife Protection Act 1972:**

- The act **aims to safeguard all plants and animal species in the country** to ensure environmental and ecological security.
- The Act **prohibits the hunting of endangered animals** while providing for the establishment of wildlife sanctuaries, national parks, and zoos.



Note:

Miscellaneous

Highlights

- India's First Aluminum Freight Rake
- Carbon Dating
- Nihonshu
- Booker Prize 2022
- Ek Bharat Shreshtha Bharat
- CCI Penalty on Google
- Dirty Bomb
- World Sight Day
- Saras Food Festival-2022

India's First Aluminum Freight Rake

Why in News?

Recently, Union Minister for Railways inaugurated India's **First Aluminum Freight Rake** named - **61 BOBRNALHSM1** at Bhubaneswar Railway Station.



What is the Significance of Aluminum Freight Rake?

- **Improve Make in India Programme:** This is a dedicated effort for the **Make in India program** as it has been fully designed and **developed indigenously in collaboration with RDSO, HINDALCO and Besco Wagon.**

- **Reduce Carbon Footprint:** It will **reduce carbon footprint** as lower consumption of fuel in empty directions and more transport of freight in a loaded condition. As a single rake can **save over 14,500 tonnes of carbon dioxide over its lifetime.**
 - As per an estimate, around **15 million tonnes of carbon emissions can be saved in a year** even if just 5% of the 2 lakh railway wagons that the Central government plans to introduce are aluminum-made.
- **Reduce Imports:** The iron industry consumes a lot of Nickel and Cadmium which comes from imports. So, a **proliferation of Aluminum wagons will result in less import.** At the same time, this is good for the local aluminum industry
- **Consumes Less Energy:** The new aluminum rakes are reportedly 180 tonnes lighter than the current steel rakes. The carrying **capacity of the new design** is said to be **5%-10% more than their steel counterparts.** More importantly, **they consume less energy with relatively negligible wear and tear to rolling stock and rails.**
- **Net Zero Carbon Emission:** it would help the Indian Railways to achieve **net zero Carbon Emissions by 2030 to become the world's largest Green Railway.**

Carbon Dating

Why in News?

Recently, a Varanasi district court has **rejected the plea to conduct carbon-dating of the disputed structure** known to have been found inside the premises of the Gyanvapi Mosque.

Note:

What is Carbon Dating?

➤ About:

- Carbon dating is a **widely used method to establish the age of organic materials**, things that were once living.
- Living things have carbon in them in various forms.
- The dating method is **based on the fact that Carbon-14 (C-14)** is radioactive, and decays at a well-known rate.
 - C-14 is an **isotope of carbon** with an atomic mass of 14.
 - The **most abundant isotope of carbon in the atmosphere is C-12**.
 - A very small amount of C-14 is also present.

➤ The ratio of C-12 to C-14 in the atmosphere is almost static, and is known.

- The Carbon Dating method **cannot be used to determine the age of non-living things** like rocks, for example.
- Also, the age of things that are more than 40,000-50,000 years old cannot be arrived at through carbon dating.
 - This is because after 8-10 cycles of half-lives, the amount of C-14 becomes almost very small and is almost undetectable.

➤ Uses:

- It has **proved to be a versatile technique of dating fossils** and archaeological specimens from 500 to 50,000 years old.
- The method is **widely used by geologists, anthropologists, archaeologists**, and investigators in related fields.

➤ Working of Carbon Dating:

- Because plants and animals get their carbon from the atmosphere, they too acquire C-12 and C-14 in roughly the same proportion as is available in the atmosphere.
 - **Plants get their carbon through photosynthesis**; animals get it mainly through food.
- When they die, their interactions with the atmosphere stops.
- While C-12 is stable, the radioactive C-14 reduces to one half of itself in about 5,730 years — known as its '**half-life**'.

- The **changing ratio of C-12 to C-14 in the remains of a plant or animal** after it dies can be measured and can be used to deduce the approximate time when the organism died.

What about the Dating

Method other than Carbon Dating?

➤ Radiometric Dating Methods:

- In this method, decays of other radioactive elements that might be present in the material become the basis for the dating method.
- **Some Types of this Method:**
 - **Potassium-Argon Dating:**
 - The radioactive isotope of potassium decays into argon, and their ratios can give a clue about the age of rocks.
 - **Uranium-Thorium-Lead Dating:**
 - Uranium and thorium have several radioactive isotopes, and all of them decay into the stable lead atom. The ratios of these elements present in the material can be measured and used to make estimates about age.

Nihonshu

Why in News?

The Embassy of Japan, New Delhi, has filed an application seeking a **Geographical Indication (GI) tag** for nihonshu/Japanese sake.

- This is the first time a product from Japan has filed for a tag at the Geographical Indication Registry.

What is Nihonshu?

- In Japan, Nihonshu is regarded as **a special and valuable beverage made from fermenting rice**.
- People traditionally **drink nihonshu on special occasions**, such as festivals, weddings or funerals, but it is **also consumed on a daily basis**.
- Thus, it is an integral part of the lifestyle and culture in Japan.
- The sake market (almost all are nihonshu) is the second largest brewed liquor (such as beer) market in Japan.

Note:



What is a Geographical Indication (GI) Tag?

➤ About:

- Geographical Indication (GI) is an **indication used to identify goods having special characteristics originating from a definite geographical territory.**
- The Geographical Indications of **Goods (Registration and Protection) Act, 1999** seeks to provide for the registration and better protection of geographical indications **relating to goods in India.**
- It is governed and directed by the **WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).**
 - It was decided and also stated under Articles 1 (2) and 10 of the Paris Convention that the protection of industrial Property and Geographical Indication are elements of Intellectual Property.
- It is primarily an **agricultural, natural or a manufactured product** (handicrafts and industrial goods).

➤ Validity:

- This tag is valid for a period of **10 years following which it can be renewed.**

➤ Significance:

- Once a product gets this tag, **any person or company cannot sell a similar item under that name.**
- GI registration of a product provides **it legal protection and prevention against unauthorised use by others.**
- GI tag helps in **promoting the exports of the product.**
- It also provides **comfort to customers about the authenticity** of that product.

Booker Prize 2022

Why in News?

Recently, Sri Lankan writer Shehan Karunatilaka won the **Booker Prize** 2022 for his novel **"The Seven Moons of Maali Almeida"**, about a dead war photographer on a mission in the afterlife.

What is Booker Prize?

- The Booker Prize is the **world's leading literary award for a single work of fiction.**
- Founded in the UK in **1969**, it was initially awarded to Commonwealth writers and now spans the globe, and it is open to anyone regardless of origin.
- Each year, the Booker Prize is awarded to what is, in the opinion of our judges, the **best sustained work of fiction written in English** and published in the UK and Ireland.
- The winning book is a work that not only speaks to our current times, but also one that will endure and join the pantheon of great literature.

Ek Bharat Shreshtha Bharat

Why in News?

Recently, Government of India has announced a month-long programme named the **'Kashi-Tamil Sangamam'** "to strengthen" and "rekindle" the cultural and civilisational bond between Tamil Nadu and Varanasi.

- This programme would be a part of the **Ek Bharat Shreshtha Bharat** initiative.

What is Ek Bharat Shreshtha Bharat?

- **Launched:** 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:** It is an initiative of the **Ministry of Education.**
- **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.

Note:

➤ **Objectives:**

- **Create the Unity in Diversity of our Nation** and to maintain and strengthen the fabric of traditionally existing emotional bonds between the people of our Country.
- **Promote the Spirit of National Integration** through a deep and structured engagement between all Indian States and Union Territories through a year-long planned engagement between States.
- **Showcase the rich Heritage and Culture, Customs and Traditions** of either State for enabling people to understand and appreciate the diversity that is India, thus fostering a sense of common identity.
- **Establish long-term Engagements.**
- Create an environment which **promotes learning between States** by sharing best practices and experiences.

CCI Penalty on Google

Why in News?

Recently, the **Competition Commission of India (CCI)** has imposed a penalty of **Rs. 936.44 crores** on Alphabet-owned Google for “abusing its dominant position” in markets related to the Android mobile device ecosystem.

What is the Issue?

- The CCI ordered an investigation into Google Unfair Business Practices in 2019 after consumers complained about Android-based smartphones.
- The allegations against Google were based on two agreements between Original Equipment Manufacturers (OEMs) of Android OS and Google — **the Mobile Application Distribution Agreement (MADA)** and **the Anti-Fragmentation Agreement (AFA)**.
- The CCI stated that Google contravened competition law due to mandatory pre-installation of the entire **Google Mobile Suite (GMS)** under MADA and there was no option to uninstall the same.
 - GMS is **a collection of Google applications and Application Programming Interface (APIs)** that help support functionality across devices. GMS includes Google’s key offerings such as Google

Search, Google Chrome, YouTube, Play Store, and Google Maps.

- This action of Google amounted to imposition of unfair conditions on the device manufacturers and thereby violated Section 4 of the competition Act.
 - Section 4 of the Competition Act is related to abuse of dominant position.

What is the Competition Commission of India (CCI)?

➤ About:

- Competition Commission of India (CCI) is a **statutory body of the Government of India** responsible for enforcing **the Competition Act, 2002**, it was duly constituted in March 2009.
- The **Monopolies and Restrictive Trade Practices Act, 1969 (MRTP Act)** was repealed and replaced by the Competition Act, 2002, on the recommendations of the Raghavan committee.

➤ Composition:

- The Commission **consists of one Chairperson and six Members** who shall be appointed by the Central Government.
- The commission is a **quasi-judicial body** which gives opinions to statutory authorities and also deals with other cases. The Chairperson and other Members shall be whole-time Members.

➤ Eligibility Criteria of Members of CCI:

- The Chairperson and every other Member shall be a person of ability, integrity and standing and who, has been, or is qualified to be a judge of a High Court, or, has special knowledge of, and professional experience of not less than fifteen years in international trade, economics, business, commerce, law, finance, accountancy, management, industry, public affairs, administration or in any other matter which, in the opinion of the Central Government, may be useful to the Commission.

What is the Competition Act, 2002?

- The **Competition Act was passed in 2002** and has been amended by the Competition (Amendment) Act, 2007. It follows the philosophy of modern competition laws.

Note:

- The **Act prohibits anti-competitive agreements**, abuse of dominant position by enterprises and regulates combinations (acquisition, acquiring of control and M&A), which causes or likely to cause an appreciable adverse effect on competition within India.
- In accordance with the provisions of the Amendment Act, the Competition Commission of India and the Competition Appellate Tribunal have been established.
- Government replaced Competition Appellate Tribunal (COMPAT) with the National Company Law Appellate Tribunal (NCLAT) in 2017.

Dirty Bomb

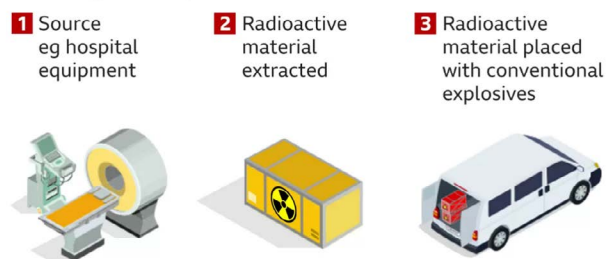
Why in News?

Recently, Russia intends to raise at the **United Nations Security Council** its accusation that Ukraine is planning a “dirty bomb” attack.

What is a Dirty Bomb?

- **About:**
 - A “dirty bomb” is a **dispersion device containing radioactive material** – possibly **uranium**, but more likely low-grade materials such as caesium-137 or other radioactive materials in common use.
 - It **doesn't need to contain highly refined radioactive material**, as is used in a nuclear bomb. Instead, it could use radioactive materials from hospitals, nuclear power stations or research laboratories.
 - This **makes them much cheaper and quicker to make than nuclear weapons**.
 - **For Example:** They can also be carried in the back of a vehicle.
- **Concerns:**
 - The **immediate health impact would probably be limited**, since most people in an affected area would be able to escape before experiencing lethal doses of radiation.
 - However, the radioactive dust and smoke spread farther away could be dangerous to health if it is inhaled. Because people cannot see, smell, feel, or taste radiation.
 - **The economic damage could be massive** from having to evacuate urban areas or even abandon whole cities.

Making a dirty bomb

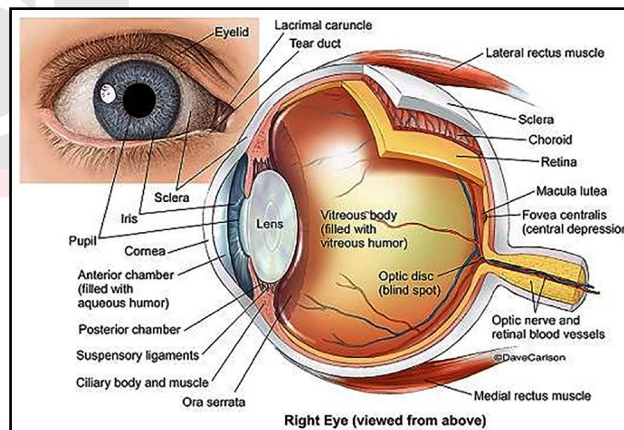


World Sight Day

Why in News?

World Sight Day is observed globally on the second Thursday of every October.

- This year, World Sight Day is being observed on 13th October to draw attention to the **issue of blindness and vision impairment** among people.



Why do we Celebrate World Sight Day?

- **History:**
 - The day was **first observed by the SightFirst campaign** of the Lions Club International organisation in the year 2000.
 - Since then, it has been **integrated into the VISION 2020: The Right to Sight (V2020)** plan.
 - The V2020 plan which was launched in 1999 is coordinated by the International Agency for the Prevention of Blindness (IAPB) in cooperation with the **World Health Organization (WHO)**.
- **Theme for 2022:** ‘Love your eyes’
- **Significance:**

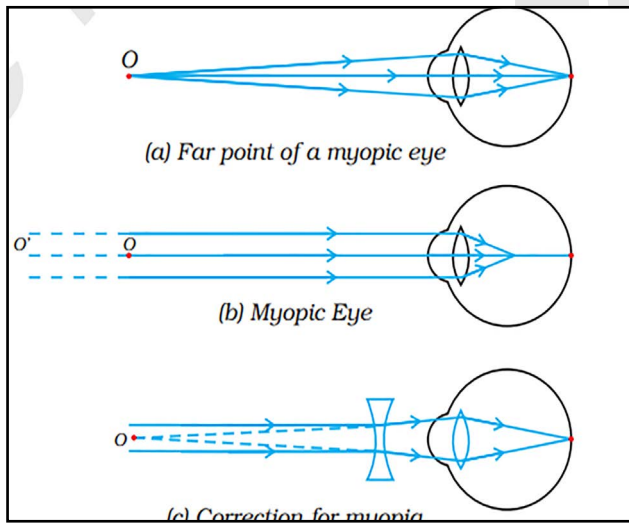
Note:

- This day is significant because there are **more than a billion people across the globe who cannot see properly** as they do not have access to glasses. Out of them, one billion people are suffering with preventable vision impairment.
- Poor or lost eyesight leave long-lasting effects on every aspect of life, such as on daily personal activities, school & work, daily routine and interacting with the community.

What are the Different Defects of Vision?

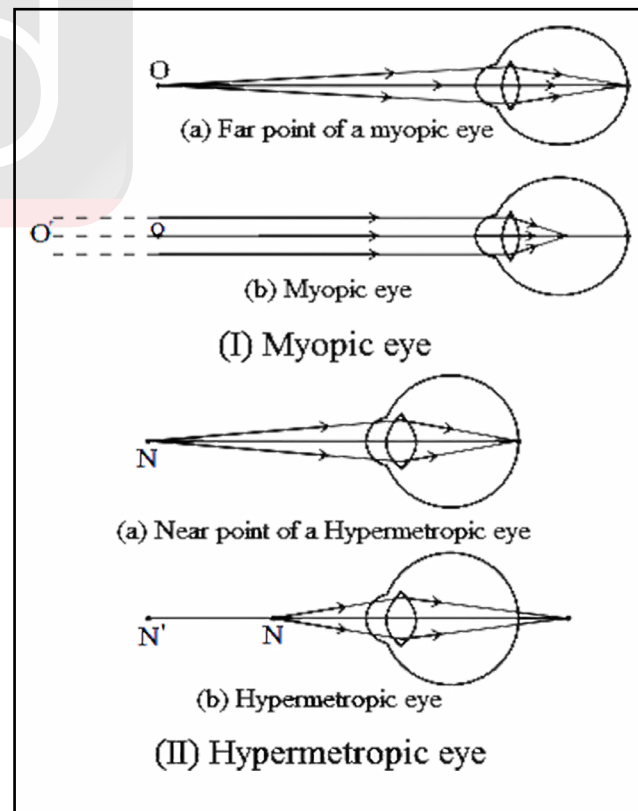
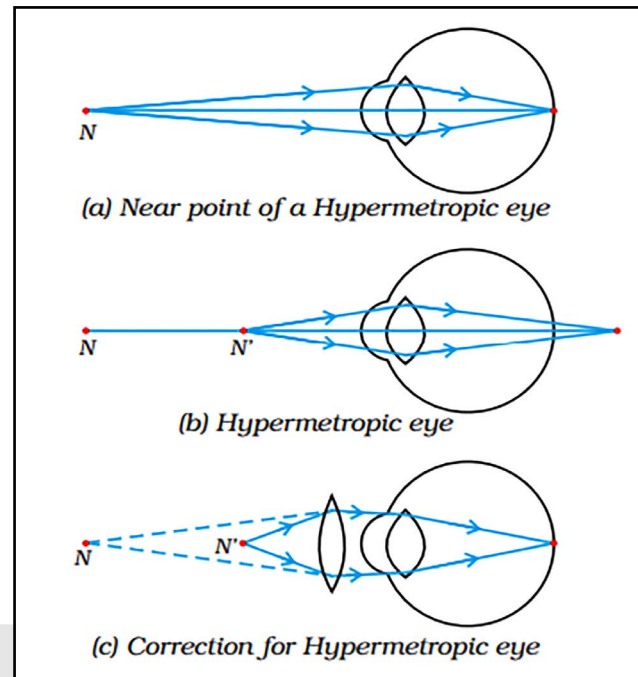
➤ Myopia or Near-Sightedness:

- In this condition, the **person can see the objects nearby but cannot see distant objects clearly**.
- Faraway objects appear blurry, and a person will not be comfortable seeing them.
- Myopia occurs when the shape of the eyes causes light rays to bend in the wrong direction, focusing images in front of the retina rather than on it.
- Myopic eye defect can be corrected by using concave lens.



➤ Hypermetropia or Far-Sightedness:

- Hypermetropia is **commonly known as far-sightedness** and convex lens is used to treat it.
- In this condition, **the person can see objects at a distance** but cannot see nearby objects clearly.
- Usually, the person with this disorder squints to see nearby objects.
- Hypermetropia is caused when the light rays from a closeby object are focused on a point behind the retina.

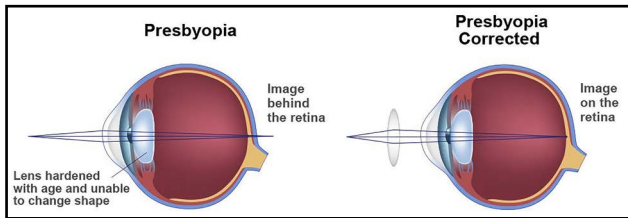


➤ Presbyopia:

- Presbyopia is the **gradual loss of the eyes' ability to focus on nearby objects**.
- The symptoms of presbyopia usually begin around the age of 40 and worsen until around 65.

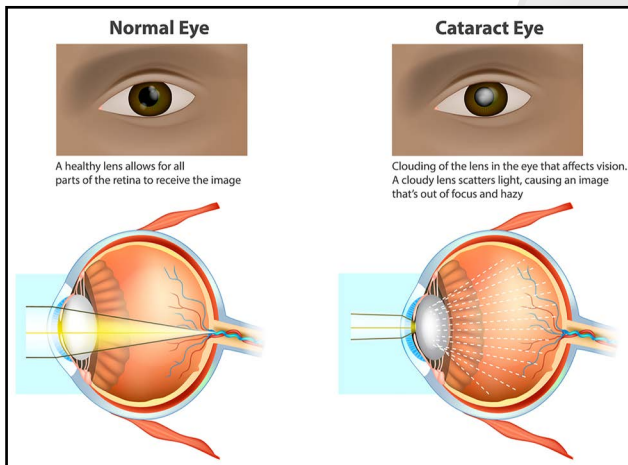
Note:

- To correct this defect, a **person is prescribed bifocal lens** that has both types of lenses- convex and concave.



➤ **Cataract:**

- It is the **medical condition in which the lens of the eye of a person becomes progressively cloudy** resulting in blurred vision. **It can be treated by Surgery.**
- Cataract develops when the eye-lens of a person becomes cloudy (or even opaque) due to the formation of a membrane over it. Cataract decreases the vision of the eye gradually.



Saras Food Festival-2022

Why in News?

Recently, **Saras Food Festival, 2022 has been organized** in New Delhi to promote ethnic and home-made handicrafts, paintings, toys, etc., prepared by women of **Self-Help Groups (SHGs).**

What is the Saras Food Festival?

- It is an initiative of the Union Ministry of Rural Development as an effort to **empower women on a large scale.**
- Women from self-help groups, formed under the flagship program '**National Rural Livelihoods Mission**' of the

Union Ministry of Rural Development are participating in this festival.

- This event will give women SHGs an opportunity to **showcase their skills in the field of food making and introduce people to the food culture** of our country.
 - These SHG women are **proficient in making rural products and preparing traditional dishes** of their states.
- The Ministry also launched the **e-commerce portal for better and more effective marketing of Saras products** prepared by women of self-help groups.
 - There are about 8 crore 62 lakh women who are members of SHGs and they have presence in 97% of Blocks, while 85 % of them are directly connected with the network of the Ministry.
- Efforts are on to have at least 25% of all sales by women self-help groups through e-commerce portals annually.
- The Ministry will take steps to establish **Saras stalls by women SHGs** in all State capitals, major cities and metros, airports and railway stations for widening the reach of marketing.

What are Self-Help Groups (SHGs)?

➤ **About:**

- **SHGs are informal associations of people** who choose to come together to find ways to improve their living conditions.
- It can be defined **as a self-governed, peer-controlled information group of people with similar socio-economic backgrounds** and having a desire to collectively perform a common purpose.
- SHG relies on the notion of "**Self Help**" to **encourage self-employment** and poverty alleviation.

➤ **Objectives:**

- To build the functional capacity of the poor and the marginalized in the field of employment and income generating activities.
- To resolve conflicts through collective leadership and mutual discussion.
- To provide **collateral free loan with terms** decided by the group at the market driven rates.
- To work as a collective guarantee system for members who propose to borrow **from organised sources.**
- The poor collect their savings and save it in banks. In return they receive easy access to **loans with a small rate of interest to start their micro unit enterprise.**

Note:



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Key Points

Details

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Summary

Key Points

Details

Summary

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