



drishti

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Polity and Governance

Highlights

- One Water Approach
- Deemed University Status
- The Rise in Preventive Detention
- Need for Unified Metro Law
- HIV Drugs Shortage
- Narcotic Drugs and Psychotropic Substances Act, 1985
- Registered Unrecognized Political Parties
- Muslim Personal Law Case
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One Water Approach

Why in News?

The **United Nations** has estimated that by the year 2050, four billion people will be seriously affected by water shortages, pushing the **One Water approach** towards all sources of water.

What is the One Water approach?

➤ About:

- One Water Approach, also referred to as **Integrated Water Resources Management (IWRM)**, is the recognition that **all water has value, regardless of its source**.
 - It includes **managing that source in an integrated, inclusive and sustainable manner** by including the community, business leaders, industries, farmers, conservationists, policymakers, academics and others for ecological and economic benefits.
- It is an **"integrated planning and implementation approach** to managing **finite water resources** for long-term resilience and reliability meeting both community and ecosystem needs.

- One Water is the future of the water industry when the barriers conventionally separating wastewater, stormwater, drinking water, groundwater and the reuse and re-utilisation are broken down, many benefits realised.

➤ Characteristics:

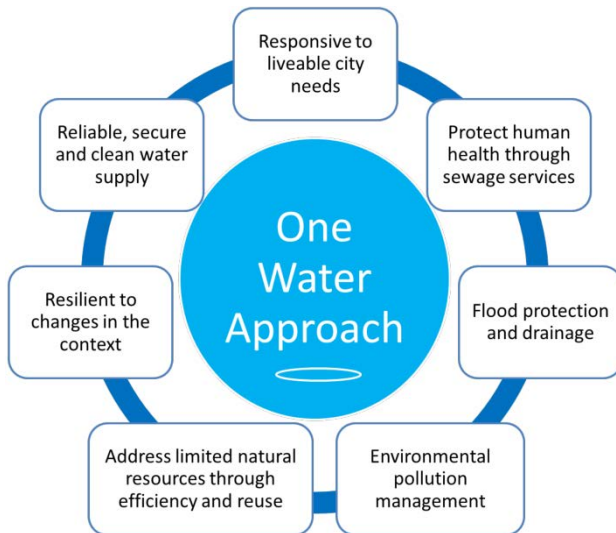
- **All Water has Value:** The mindset that all water has value — from the water resources in our ecosystems to our drinking water, wastewater and stormwater.
- **A Multi-faceted Approach:** Our water-related investments should provide economic, environmental, and societal returns.
- **Utilising Watershed-Scale Thinking and Action:** It should respect and respond to the natural ecosystem, geology, and hydrology of an area.
- **Partnerships and Inclusion:** Real progress and achievements will only be made when all stakeholders come forward and together will take a decision.

➤ Objectives:

- Reliable, secure, clean water supplies
- **Aquifer** recharge
- **Flood** protection
- Minimising environmental **pollution**
- Efficient use and reuse of natural resources

Note:

- Resiliency to climate
- Long-term sustainability
- Equity, affordability and accessibility to safe drinking water
- Economic growth and prosperity



Why is the One Water Approach Needed?

- Differences in regional water availability, pricing and affordability, the seasonal and inter-annual variation in supply, water quality and quantity, and unreliability of the **resource poses great challenges.**
- Aged infrastructure, supply-centric management, polluted waterbodies, agricultural and industrial expansion following changes in consumption and production patterns, a changing climate and disproportionate distribution of the water **also push for new water techniques.**
- At the global level, 31 countries are already facing a shortage of water and **by 2025, there will be 48 countries facing serious water shortages.**
- Recognising, measuring and expressing water's worth and incorporating that into decision-making **is still a challenge, apart from the water scarcity.**

How is IWRM Superior to Conventional Water Management?

- In the conventional water management approach, drinking water, wastewater and stormwater are managed separately, whereas in **'One Water', all the water systems, regardless of its source, are connected intentionally and managed meticulously** for water, energy and resources.

- Water is **recycled and reused several times in IWRM**, in contrast to a one-way route from supply to use, treatment and disposal.
- Stormwater is **utilised as a valuable resource to fight against water scarcity**, recharge groundwater and support natural vegetation.
- The water system includes **green infrastructures and a mix of grey and green infrastructure that form a hybrid system** as compared to grey infrastructure in conventional water management.
 - **Grey infrastructure** refers to structures such as dams, seawalls, roads, pipes or water treatment plants.
 - **Green infrastructure** refers to natural systems including forests, floodplains, wetlands and soils that provide additional benefits for human well-being, such as flood protection and climate regulation.
- Active collaborations with industry, agencies, policymakers, business leaders and various stakeholders is a regular practice in the 'One Water' approach, whereas **collaboration is need-based in conventional water management systems.**

Deemed University Status

Why in News?

Recently, the **National Council of Educational Research and Training (NCERT)** has applied to the **University Grants Commission (UGC)** for the **deemed university** status.

Why did NCERT apply for Deemed University Tag?

- **Lack of Government Decision:** The government's proposal to make the NCERT an institute of national importance is on hold.
- **Benefits:** The status would allow NCERT to **offer its own graduate, postgraduate and doctoral degrees and have autonomy** in terms of introduction of programmes, course structure, conducting examinations and management, among others.
- **Present Status:** The graduate and post-graduate programmes offered by NCERT's **Regional Institute of Education (RIE)** are affiliated with local universities like Barkatullah University, Bhopal, M D S University, Ajmer, University of Mysuru, Utkal University, Bhubaneswar and North-Eastern Hill University, Shillong.

Note:

- **Need:** Despite offering innovative teacher education courses through RIEs for decades, the NCERT is still **dependent on the approval of local universities to introduce programmes.**

What is the National Council of Educational Research and Training (NCERT)?

- **About:**
 - The NCERT is an **autonomous organization** set up in 1961 by the Government of India to **assist and advise the Central and State Governments** on policies and programmes for qualitative improvement in school education.
 - The **Executive Committee (EC)** is the highest decision-making body of NCERT and is chaired by the **Education Minister.**
- **Objectives:**
 - To **undertake, promote and coordinate research** in areas related to school education; prepare and publish model textbooks, supplementary material, newsletters, journals and develop educational kits, multimedia digital materials, etc.

What is a Deemed University?

- **About:**
 - Deemed University is a type of higher education institute, it has been **recognized by the status of “deemed to be university” under Section 3 of the University Grants Commission (UGC) Act, 1956.**
 - In broad terms, it means that the institution has been **granted permission to offer its own degree programs, which are equivalent to those provided by regular universities.**
- **Benefits:**
 - There are many benefits of being a Deemed University, such as **increased funding opportunities and attracting better faculty.** Additionally, these institutions often have **more flexible admissions policies.**
 - The authority to revise the curriculum.
 - The right to conduct examinations and evaluations.

What are the other Different types of Universities in India?

- **Central University:**
 - A university established or incorporated by a Central Act. The establishment and operation are funded by the Union Government.
- **State University:**
 - A university established or incorporated by a Provincial Act or by a State Act.
- **Private University:**
 - A university established through a State/Central Act by a sponsoring body viz. A Society registered under the Societies Registration Act 1860, or any other corresponding law for the time being in force in a State or a Public Trust or a Company registered under Section 25 of the Companies Act, 1956.
- **Institution of National Importance:**
 - An Institution established by Act of Parliament and declared as Institution of National Importance. They are funded by the Government of India and include all the **IITs, NITs and AIIMs institutes.**
- **Institution under State Legislature Act:**
 - An Institution established or incorporated by a State Legislature Act.

The Rise in Preventive Detention

Why in News?

According to the latest crime statistics released by the **National Crime Records Bureau (NCRB)**, there is a rise in Preventive detentions in 2021 of about 23% compared to 2020, with over 1.1 lakh people being placed under preventive detention.

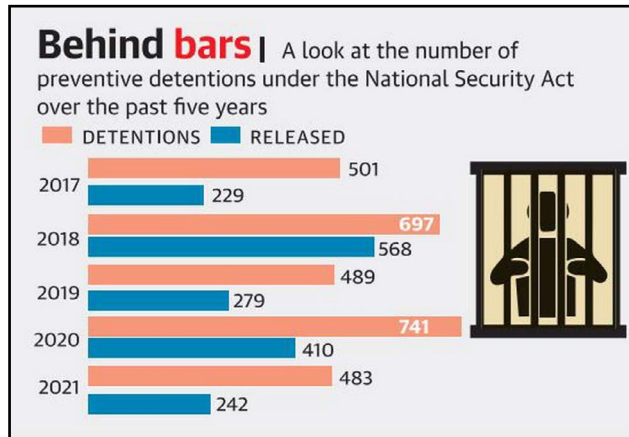
What is Preventive Detention?

- **Article 22:** Article 22 of the Indian Constitution grants protection to persons who are arrested or detained.
 - **Two Types of Detentions:**
 - **Preventive detention** is when a **person is held in police custody only on the basis of a suspicion** that they would conduct a criminal act or cause harm to society.

Note:

- The police have the authority to hold anyone they suspect of committing a criminal offence and also to **make arrests without a warrant or a magistrate's authorization in certain cases.**
 - **Punitive detention**, which means detention as a punishment for a criminal offence. It occurs after an **offence is actually committed, or an attempt has been made towards the commission of that crime.**

What are the Key Highlights of the National Crime Records Bureau (NCRB) Data?



- **The Highest number of Detention:** A total of over 24,500 people placed under preventive detention were either in custody or still detained as of the end of 2021, the **highest since 2017** when the NCRB started recording this data.
- **State and Union Territories:** **Tamil Nadu** followed by Telangana and Gujarat recorded most preventive detentions in 2021 among the States while **Jammu and Kashmir** recorded the highest number of such detentions in Union Territories (UTs).
- **The Relative Preventive Laws:**
 - **National Security Act:** The NCRB data showed that the **number of people arrested under the National Security Act (NSA) had dipped significantly** compared to 2020.
 - Preventive detentions under the **NSA** peaked in 2020 at 741. This number dropped to 483 in 2021.
 - The Goonda Act
 - Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988

- **Public Safety Act (PSA)**
- **Narcotic Drug and Psychotropic Substance Act (NDPS), 1985**
- Prohibition of Insider Trading (PIT)
- Prevention of Black marketing and Maintenance of Supplies of Essential Commodities Act, 1980 (PBMSECA)
- Further, a category classified as “Other Detention Acts”, under which most of the detentions were registered Since 2017, the highest number of persons to be placed under preventive detention has consistently been under the “Other Detention Acts” category.

➤ Issues:

- **Misuse of other Acts:** There are several laws like the **Unlawful Activities (Prevention) Act** and **Maharashtra Control of Organised Crime Act** which also provides for making preventive detentions.
- **Manipulation by Government Officials:** District magistrates and the police also often make preventive detentions to **control law and order in emerging communal clashes or clashes between any two communities**, even when it might not always lead to public disorder.
- **Supreme Court's View:** In July 2022, a Vacation Bench of the Supreme Court, while setting aside the preventive detention order issued for a chain-snatcher in Telangana, observed that these **powers accorded to the State were “exceptional”** and that since they **affect the liberty of an individual**, they should be used sparingly.
 - The court had also noted that these powers **should not be used to control ordinary law and order problems.**

Need for Unified Metro Law

Why in News?

Recently, the **Parliamentary Standing Committee on Housing and Urban Affairs** flagged the need for single and comprehensive legislation for all the Metro rail networks in the country and opposed the existing three central acts.

- All metro rail projects are covered under the legal framework of the **Metro Railways (Construction of Works) Act, 1978; the Metro Railways (Operation and Maintenance) Act, 2002; and the Railways Act, 1989.**

Note:

What are the Issues Highlighted by the Panel?

- Low ridership in all Metros apart from Delhi and Mumbai.
- Leading to a delay in the projects attaining breaking even point.
- Even after six to seven years of continuous operations the issues still exist like:
 - **faulty Detailed Project Report (DPRs),**
 - **lack of proper planning to provide first and last mile connectivity,**
 - **provision of parking at metro rail stations,**
 - **need for increasing catchment area, etc**

What are the Recommendations of the Panel?

- There is a need for the use of the **less capital-intensive MetroNeo and MetroLite networks** in small cities with low ridership instead of the conventional Metro systems.
 - **MetroNeo** is a mass rapid transit system providing **low-cost, energy-efficient and eco-friendly urban transport solutions for tier 2 and tier 3 cities.**
 - **Metrolite** system will have a **dedicated path separating the road traffic with it,**
 - For segregation with road traffic, fencing can be provided on either side of the network.
- Further, the Kochi Water Metro project should be included under the Ministry of Heavy Industries' **FAME II scheme** as it would be a pollution-free mode of transport using battery-operated boats.

HIV Drugs Shortage

Why in News?

Recently, India is witnessing the shortage of **HIV (Human Immunodeficiency Virus) Drugs**, certain **Antiretroviral (ARV) drugs in Anti-Retroviral Therapy (ART) centres.**

- The **National AIDS Control Organisation (NACO)** under the Ministry of Health and Family Welfare is the **nodal agency responsible for overlooking and coordinating activities of the National AIDS Control Programme (NACP)** along with the Central Medical

Services Society, which is responsible for centralised tendering and pooled procurement of different HIV products.

What is Human Immunodeficiency Virus (HIV)?

- HIV attacks CD4, a type of **White Blood Cell** (T cells) in the body's immune system.
 - T cells are **those cells that move around the body detecting anomalies** and infections in cells.
- After entering the body, **HIV multiplies itself and destroys CD4 cells**, thus severely damaging the human immune system.
 - Once this virus enters the body, it can never be removed.
- The CD4 count of a person infected with HIV **reduces significantly.** In a healthy body, CD4 count is between 500- 1600, but in an infected **body, it can go as low as 200.**
- If HIV is not treated, it can lead to **AIDS (acquired immunodeficiency syndrome).**

Why is the shortage Concerned?

- People living with HIV need access to treatment with a **combination of drugs known as antiretroviral therapy to suppress the virus**, preserve their health, and prevent transmission of the virus to an HIV-negative partner.
- Staying on antiretroviral therapy continuously is **crucial to keep the virus suppressed.**

What has Driven the Shortages of These drugs?

- The failure of the pooled procurement mechanism. The tender for pooled procurement of life-saving antiretroviral medicines **has faced bureaucratic delays in 2014, 2017, and now again in 2022.**
- Although the state is not facing an acute shortage, **medicines are running low, with some stocks set to expire.**
- Officials are forced to compromise, for example, by portioning drugs meant for adults and giving them to children.

What are the Implications?

- If not addressed in time, the drug shortage could result in a full-blown public health concern.

Note:

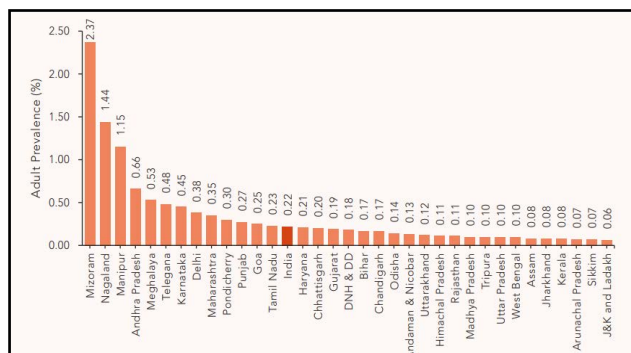


- According to NACO, any irregularity in following the prescribed regimen can lead to **resistance to HIV drugs**, and therefore can weaken or negate its effect.
- If ART is not taken daily the probability of infection building up in the body increases, making the person unwell and infectious.
- These risks undoing India's hard-won gains against HIV/AIDS and further derails global progress, which is not on track to meet the goal of ending AIDS by 2030.

What is the Prevalence of HIV/AIDS in India?



- As per the government's HIV Estimation 2021 report, the number of People Living with HIV (PLHIV) in India is 24.01 lakh.
 - Annual new HIV infections have declined by 46% in India since 2010
 - **Maharashtra** had the **maximum numbers** followed by Andhra Pradesh and Karnataka.



- The Adult Prevalence (15-49 Yrs.) rate of HIV is **highest in Mizoram (2.37%)** followed by Nagaland and Manipur.
- HIV/AIDS in Mizoram is **10 times higher** than the national average (0.22%).

Narcotic Drugs and Psychotropic Substances Act, 1985

Why in News?

Recently, Karnataka High Court said that **Bhang** is nowhere referred to as a prohibited drink or prohibited drug as per **Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985**.

- The court relied on two earlier judgments, **Madhukar vs the State of Maharashtra, 2002** and **Arjun Singh vs State of Haryana, 2004**, where the courts had ruled that **bhang is not ganja**, and is therefore not covered under the NDPS Act.
- Earlier, Thailand has **legalized cultivating and possessing Marijuana** but recreational use (Such as smoking) is still banned.

What is Bhang?

- **About:**
 - Bhang is the **edible preparation made from the leaves of the cannabis plant**, often incorporated into drinks such as thandai and lassi, along with various foods.
 - Bhang has been consumed in the **Indian subcontinent for centuries**, and is frequently consumed during the **festivals of Holi and Mahashivratri**.
- **Law:**
 - The **NDPS Act** is the main legislation, enacted in 1985, that deals with **drugs and their trafficking**.

What are the Provisions of the NDPS Act?

- **Defines Cannabis as a Narcotic Drug:**
 - The NDPS Act defines cannabis (hemp) as a narcotic drug **based on the parts of the plant that come under its purview**. The Act lists these parts as:
 - **Charas:** The separated resin, in whatever form, whether crude or purified, obtained from the cannabis plant and also includes concentrated preparation and resin known as **hashish oil or liquid hashish**.

Note:

- **Ganja:** The flowering or fruiting tops of the cannabis plant (excluding the seeds and leaves when not accompanied by the tops), by whatever name they are known or designated.
- **Any mixture**, with or without any neutral material, of any of the above forms of cannabis or any drink prepared therefrom.
- The Act, in its definition, **excludes seeds and leaves “when not accompanied by the tops”**.
- **Bhang is not mentioned** in the NDPS Act.
- **Punishment:**
 - **Section 20** of the NDPS Act lays out the punishment for the production, manufacture, sale, purchase, import and inter-state export of cannabis, as defined in the Act. The prescribed punishment is based on the amount of drugs seized.
 - It also provides for **death penalty** in some cases where a person is a **repeat offender**.

What is the State of Crime under NDPS Act?

- **Punjab topped** the list of crime rate as per the **National Crime Records Bureau (NCRB)** recent data for 2021.
 - Punjab recorded 32.8 % crime rate in 2021, which was the **highest in the country**.
- **Himachal Pradesh** ended second, notching a crime rate of 20.8 % followed by **Arunachal Pradesh that reported NDPS Act crime rate of 17.2 %**, followed by Kerala (16 %).
- The lowest crime rate under NDPS Act in 2021 was reported from **UT Dadar and Nagar Haveli and Daman and Diu (0.5 %)**, followed by the states of Gujarat (0.7 %) and Bihar (1.2 %).

What are the Initiatives to Tackle Drug Addiction?

- The **Narco-Coordination Centre (NCORD)** was constituted in 2016 and the scheme of “Financial Assistance to States for Narcotics Control” was revived.
- **Seizure Information Management System** will create a complete online database of drug offences and offenders.
- **National Drug Abuse Survey** to measure trends of drug abuse in India through the Ministry of Social Justice & Empowerment with the help of National Drug Dependence Treatment Centre of AIIMS.

- **Project Sunrise:** It was launched by the Ministry of Health and Family Welfare in 2016, to tackle the **rising HIV prevalence** in north-eastern states in India, especially among people injecting drugs.
- **‘Nasha Mukh Bharat’, or Drug-Free India Campaign**

Registered Unrecognized Political Parties

Why in News?

The Election Commission of India has delisted 86 non-existent **Registered Unrecognized Political Parties (RUPP)** and declared additional 253 as ‘**Inactive RUPPs**’.

What do we need to know about the Delisting by ECI?

- **Declared Inactive:**
 - 253 RUPPs have **not responded to the letter/notice delivered to them** and have **not contested a single election** either to the **General Assembly of a State** or the **Parliament Election** of 2014 & 2019.
 - As per **Section 29A of the Representation of People Act 1951**, every political party has to communicate any change in its **name, head office, office bearers, address, PAN** to the Commission without delay.
- **Delisted:**
 - 86 RUPPs have been found to be **non-existent** either after a **physical verification carried out by the Chief Electoral Officers** of concerned States/UTs or based on a **report of undelivered letters/notices** from Postal Authority sent to the registered address of concerned RUPP.
 - Additionally, they would not be entitled to have **benefits under the Symbols Order, 1968**.

What are the Key Points related to the Political Parties?

- **Registered Unrecognised Political Parties (RUPP):**
 - **About:**
 - Either **newly registered parties** or those which have **not secured enough percentage of votes** in the assembly or general elections to **become a state party**, or those which have **never contested elections** since being registered are considered unrecognized parties.

Note:

- Such parties **don't enjoy all the benefits** extended to the recognised parties.
- **Symbol Allocation:**
 - Common symbols are provided to RUPP under **Symbols Order, 1968.**
 - Privilege of a common symbol is given to RUPP based upon an undertaking for **putting up at least 5% of total candidates with regard to said legislative assembly election of a State.**
 - Possibility of such parties occupying the available pre-election political space by taking benefits of admissible entitlements without contesting elections **cannot be ruled out.**
 - This also tends to crowd out the political parties actually contesting elections and also creating confusing situations for the voters.
- **Recognised Political Party:**
 - A recognised political party shall **either be a National party or a State party** if it meets certain laid down conditions.
 - To become a recognised political party either at the state or national level, a party has to **secure a certain minimum percentage of polled valid votes** or a certain **number of seats in the state legislative assembly or the Lok Sabha** during the last election.
 - The recognition granted by the Commission to the parties determines their right to certain privileges like **allocation of the party symbols, provision of time for political broadcasts on the state-owned television and radio stations and access to electoral rolls.**

What are the Conditions for Recognition of Political Parties?

- Conditions For Recognition of National Parties**
- A party is recognised as a national party if any of the following conditions is fulfilled:
 - If it secures **6% of valid votes polled in any four or more states** at a general election to the Lok Sabha or to the legislative assembly and in addition, it **wins four seats** in the Lok Sabha from any state or states, or
 - If it wins **2% of seats in the Lok Sabha** at a general election and these candidates **are elected from three states**, or
 - If it is **recognised as a state party in four states.**

Conditions for Recognition as a State Party

- A party is recognised as a state party in a state if any of the following conditions is fulfilled:
 - If it secures **6% of the valid votes polled in the state** at a general election to the legislative assembly of the state concerned and in addition, it **wins 2 seats in the assembly of the state concerned** or
 - If it secures **6% of the valid votes polled in the state** at a general election to the **Lok Sabha from the state** concerned and in addition, it **wins 1 seat in the Lok Sabha** from the state concerned or
 - If it wins **3% of seats in the legislative assembly** at a general election to the legislative assembly of the state concerned or **3 seats in the assembly**, whichever is more or
 - If it wins **1 seat in the Lok Sabha for every 25 seats** or any fraction thereof allotted to the state at a general election to the Lok Sabha from the state concerned or
 - If it secures **8% of the total valid votes polled** in the state at a General Election to the **Lok Sabha** from the state or to the **legislative assembly of the state. This condition was added in 2011.**

What Powers does Symbol's Order 1968 provide to ECI?

- 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.**
- This 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.**

Note:

- 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**.

What is the Representation of People Act 1951?

➤ Key Provisions:

- It regulates the **actual conduct of elections and by-elections**.
- It provides **administrative machinery** for conducting elections.
- It deals with the **registration of political parties**.
- It specifies the **qualifications and disqualifications for membership** of the Houses.
- It provides **provisions to curb corrupt practices** and other offences.
- It lays down the **procedure for settling doubts and disputes arising out of elections**.

➤ Provisions Related to Political Parties:

- Every association or body in order to become a political party **must be registered with the ECI** whose decision regarding registration will be final.
- Registered political parties, in course of time, **can get recognition as 'State Party' or National Party'**.

Muslim Personal Law Case

Why in News?

Several petitions have been listed in the **Supreme Court** challenging the constitutional validity of the practice of polygamy and Nikah Halala allowed by Muslim Personal Law.

- A five-judge Constitution Bench has issued notices to the **National Human Rights Commission (NHRC)**, the **National Commission of Women (NCW)** and the **National Commission of Minorities**.

What are the Arguments of the Petitioners?

- The petitioners have **demand a ban on Polygamy and Nikah-Halala** saying it renders Muslim wives extremely insecure, vulnerable and infringes their fundamental rights.

- They prayed that **Section 2 of the Muslim Personal Law (Shariat) Application Act** be declared unconstitutional and violative of **Articles 14 (right to equality), 15 (discrimination on ground of religion) and 21 (right to life)** of the Constitution, insofar as it seeks to recognize and validate the practice of polygamy and nikah-halala.
- The **Constitution does not touch upon the personal laws** and therefore the SC cannot examine the question of constitutional validity of the practices.
- They contend that even the apex court and various High Courts have on earlier occasions refused to interfere with practices sanctioned by personal law, an argument they advanced even in the **triple talaq** challenge matter too which the SC has already rejected.

What do we Know about Muslim Personal Law?

- According to Sharia or the Muslim personal law, **men are allowed to practice polygamy** that is, they can have more than one wife at the same time, up to a total of four.
- **'Nikah halala'** is a process in which a Muslim woman **has to marry another person** and get divorced from him before being allowed to marry her divorcee husband again.

In what ways was

Muslim Law Applied in India?

- The **Muslim Personal Law (Shariat) Application Act was passed in 1937** with the aim to formulate an Islamic law code for Indian Muslims.
- The British who were at this point in time governing India, were trying to ensure that Indians were ruled according to their own cultural norms.
- **When it came to distinguishing between laws made for the Hindus** and those for the Muslims, they laid out the statement that **"clear proof of usage will outweigh the written text of the law"** in the case of Hindus. For the Muslims on the other hand, the writings in the Quran would be of foremost importance.
- Since 1937 therefore, the **Shariat Application Act mandates aspects of Muslim social life** such as marriage, divorce, inheritance and family relations. The Act lays out that in matters of personal dispute the state shall not interfere.

Note:

What are the Personal Laws of Other Religions?

- The **Hindu Succession Act of 1956** which lays out guidelines for property inheritance among Hindus, Buddhists, Jains and Sikhs.
- The Parsi Marriage and Divorce Act of 1936 lays out rules to be followed by the Parsis according to their religious traditions.
- The **Hindu Marriage Act of 1955** had codified laws related to marriage among Hindus.

Is the Shariat Application Act in India Unchangeable?

- The **applicability of the Shariat Act has been controversial** over the years. There have been previous instances when the issue of protection of women's rights as part of the broader fundamental rights came into conflict with religious rights.
- The most well-known among these is the **Shah Bano case**.
 - In 1985, 62-year-old Shah Bano, filed a lawsuit seeking alimony from her former husband.
- The Supreme Court, in this case, had **held up her right to alimony, but the judgment was vehemently opposed by the Islamic community** who considered it to be going against the written rules in the Quran. The case triggered a controversy regarding the extent to which courts can interfere with personal/religious laws.
- The **Shariat Application Act in India protects the application of Islamic laws** in personal legal relationships, but the Act does not define the laws.
- Personal law **does not fall within the definition of 'laws' under Article 13** of the Constitution. The validity of a personal law cannot be challenged on the basis of **fundamental rights** enshrined in the Constitution.

Sedition Law

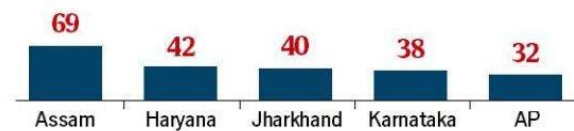
Why in News?

As per **National Crime Records Bureau (NCRB)** reports, Assam recorded the most number of **Sedition** cases in the country in the last eight years.

What are the Findings of the NCRB?

- Out of 475 sedition cases registered in the country between 2014 and 2021, **Assam accounted for 69 cases (14.52 %)**.
- After Assam, the most number of such cases were reported from Haryana (42 cases), followed by Jharkhand (40), Karnataka (38), Andhra Pradesh (32) and Jammu and Kashmir (29).
 - These six states **accounted for 250 cases** — more than half the number of total sedition cases recorded in the country — in the eight-year period.
- 76 sedition cases were registered across the country in 2021, **a marginal increase from the 73 registered in 2020**.
- **States and UTs that did not register even one sedition case** in that period were Meghalaya, Mizoram, Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli and Daman and Diu, and Puducherry.

2014-21: STATES WITH MOST SEDITION CASES



What is Sedition Law?

- **Historical Background:**
 - Sedition laws were enacted in **17th century England** when lawmakers believed that **only good opinions of the government should survive**, as **bad opinions were detrimental** to the government and monarchy.
 - The law was originally drafted in 1837 by Thomas Macaulay, the British historian-politician, but was inexplicably omitted when the **Indian Penal Code (IPC) was enacted in 1860**.
 - **Section 124A** was inserted in 1870 by an amendment introduced by **James Stephen** when it felt the need for a specific section to deal with the offence.
 - Today the Sedition is a crime under **Section 124A of the Indian Penal Code (IPC)**.
- **Sedition Law Today:**
 - **Section 124A IPC:**
 - It defines sedition as an offence committed when “any person by words, either spoken or written, or by signs, or by visible representation,

Note:

or otherwise, **brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection** towards the government established by law in India”.

- Disaffection includes disloyalty and all feelings of enmity. However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.
- **Punishment for the Offense of Sedition:**
 - It is a **non-bailable offence**. Punishment under Section 124A ranges from **imprisonment up to three years to a life term**, to which a fine may be added.
 - A person charged under this law is barred from a government job.
- They have to live without their passport and must appear in court at all times as and when required.

What are the Significance and Issues with the Sedition Law?

- **Significance:**
 - **Reasonable Restrictions:**
 - The constitution of India prescribes reasonable restrictions (under **Article 19(2)**) that can always be imposed on this right (Freedom of Speech and Expression) in order to ensure its responsible exercise and to ensure that it is equally available to all citizens.
 - **Maintaining Unity & Integrity:**
 - Sedition law helps the government in combating anti-national, secessionist and terrorist elements.
 - **Maintaining Stability of State:**
 - It helps in protecting the elected government from attempts to overthrow the government with violence and illegal means. The continued existence of the government established by law is an essential condition of the stability of the State.
- **Issues:**
 - **Relic of Colonial Era:**
 - Colonial administrators used sedition to lock up people who criticised the British policies.

- Stalwarts of the freedom movement such as **Lokmanya Tilak, Mahatma Gandhi, Jawaharlal Nehru, Bhagat Singh**, etc., were convicted for their “seditious” speeches, writings and activities under British rule.

- Thus, rampant use of the sedition law recalls the colonial era.

○ **Stand of Constituent Assembly:**

- The Constituent Assembly did not agree to include sedition in the Constitution. The members felt it would curtail freedom of speech and expression.
- They argued that the sedition law can be turned into a weapon to suppress people’s legitimate and constitutionally guaranteed right to protest.

○ **Disregarding Supreme Court’s Judgement:**

- Supreme Court in **Kedar Nath Singh vs State of Bihar** case 1962, limited application of sedition to “acts involving intention or tendency to create disorder, or disturbance of law and order, or incitement to violence”.
- Thus, invoking sedition charges against academicians, lawyers, socio-political activists and students is in disregard of the Supreme Court’s order.

○ **Repressing Democratic Values:**

- Increasingly, India is being described as an elected autocracy primarily because of the callous and calculated use of sedition law.

Bail for Women

Why in News?

Recently, the **Supreme Court of India** granted interim bail to activist Teesta Setalvad stating that “**the relief of interim bail is granted to the appellant (Teesta) in the peculiar facts including the fact that the appellant happens to be a lady**”.

- **The Chief Justice of India** also made a reference to the bail provision in **Code of Criminal Procedure CrPC** that says “**being a woman is a possible ground for granting bail, even when otherwise it cannot be considered.**”

Note:

What are the Provisions available for Bail for Women?

- **The Code of Criminal Procedure CrPC:**
 - **Section 437 of the CrPC** deals with bail in case of **non-bailable offences**. According to it, **person shall not be released on bail if:**
 - There is **reasonable ground to believe** that he has committed an offence **punishable with death or life imprisonment**; or
 - He has been **previously convicted for an offence** punishable with death, life imprisonment, or for a **term of seven years or more**; or
 - He has been convicted on **two or more occasions** on other offences with a **term between three and seven years**.
 - However, **Section 437 of the CrPC** also contains exceptions such as the court may grant bail even in these cases, if such person is **under the age of 16 or is a woman or is sick or infirm**.
- **Other Provisions:**
 - When a police officer requires the **attendance of any person** who he believes is acquainted with a case under investigation, the person **has to appear before the officer** (Section 160).
 - However, **no woman shall be required to do so** at any place other than the place in which she resides.
 - In its 84th and 135th Report in 1980 and 1989, the **Law Commission** suggested that the word 'place' is ambiguous, and it would be better to amend it to 'dwelling place'.

What does the CrPC say on the Arrest of a Woman?

- **Process of Arrest:**
 - A police officer **may arrest a person** who has committed a **cognisable offence** without a judicial order or a warrant (Section 41).
 - If the person **does not submit to custody** based on the word or action of the police, **Section 46 enables the police officer to confine the person physically to effect the arrest**.

- In 2009, a provision was added in CrPC to the effect that where a **woman is to be arrested, only a female police officer may touch the woman's person**, unless circumstances otherwise require.
 - In 2005, through an amendment, a subsection was added to Section 46 to **prohibit the arrest of a woman after sunset or before sunrise**.
 - **In exceptional circumstances**, a woman police officer can obtain the prior permission of a **judicial magistrate** to make the arrest.
- **In Cases of Non-Appearance:**
 - The police may **seek entry into any premises** where they suspect that a person who is required to be arrested is present.
 - In a situation where any such place is an apartment in the occupancy of a female (**who is not the person to be arrested**) and if the woman is one who does not appear in public, **the police have to give notice to her so that she may withdraw before they enter it** (Provision to Section 47).
 - It adds that they shall **afford her every reasonable facility** for withdrawing before they break open and enter the place.
 - In another exception, a woman who intends to file a **defamation case**, but is one who does not appear in public according to custom, can ask someone else to file the complaint on her behalf.

What are Constitutional Provisions in India against Arrest?

- **Article 22:**
 - **Article 22** of the **Indian Constitution** grants protection to persons who are arrested or detained.
 - **Detention is of two types:**
 - **Punitive Detention:** It is to punish a person for an **offence committed by him after trial and conviction** in a court.
 - **Preventive Detention:** It means **detention of a person without trial and conviction by a court**.
 - Article 22 has two parts—the first part deals with the **cases of ordinary law** and the second part deals with the **cases of preventive detention law**.

Note:

Rights Given Under Punitive Detention	Rights Given Under Preventive Detention
➤ Right to be informed of the grounds of arrest.	➤ The detention of a person cannot exceed three months unless an advisory board reports sufficient cause for extended detention.
➤ Right to consult and be defended by a legal practitioner.	➤ The board is to consist of judges of a high court.
➤ Right to be produced before a magistrate within 24 hours , excluding the journey time.	➤ The grounds of detention should be communicated to the detenu.
➤ Right to be released after 24 hours unless the magistrate authorises further detention.	➤ However, the facts considered to be against the public interest need not be disclosed.
➤ These safeguards are not available to an enemy alien.	➤ The detenu should be afforded an opportunity to make a representation against the detention order.
	➤ N/A
	➤ This protection is available to both citizens as well as aliens.

What is a Bail & Its Types?

➤ About Bail:

- Bail is the **conditional/provisional release** of a person held under legal custody (**in matters which are yet to be pronounced by the Court**), by undertaking a promise to appear in the Court as and when required. It signifies a security/collateral deposited before the Court for release.

➤ Types of Bail in India:

○ Regular Bail:

- It is a direction given by the Court (any Court within the country) to **release a person who is already under arrest and kept in police custody.**

- For such Bail, a person can file an application under **Section 437 and 439 of the CrPC.**

○ Interim Bail:

- Bail granted for a **temporary and short period** by the Court till the application seeking **Anticipatory Bail or Regular Bail is pending** before a Court.

○ Anticipatory Bail:

- A direction issued to **release a person on Bail even before the person is arrested.**

- In this situation, there is apprehension of arrest and the **person is not arrested before the Bail is granted.**

- For such Bail, a person can file an application under **Sec. 438 of the Code of Criminal Procedure (CrPC).**

- It is issued only by the **Sessions Court and High Court.**

Dilution of Lokayukta Powers in Kerala

Why in News?

Recently, the **Kerala Legislative Assembly passed the Kerala Lok Ayukta (Amendment) Bill, 2022 .**

What are the Amendments?

- The amendment Bill has **diluted the binding aspect of the Lokayukta order**, allowing the **competent authority** to now either reject or accept the ombudsman's report.
 - With the amendment the **state government will get the power to either accept** or reject the verdict of the anti-corruption body, after giving an opportunity to be heard.
 - The amendment will **make Lokayukta a body** for just making recommendations or sending reports to the government.
- It has also made the **Legislative Assembly the competent authority** to review an indicting report against the Chief Minister.

Note:

- If a Lokayukta report indicts a cabinet minister, the Bill vests the reviewing authority in the Chief Minister.
- And in the case of **legislators**, the competent authority will be **the House Speaker**.
- The **Bill exempts political leaders from the purview of the Act**.
- The Bill allows for **retired High Court judges to be appointed Lokayukta**.
- **Section 14 of the Act** which has now been amended said that **if the Lokayukta is satisfied on the complaint against the public servant** being substantiated that he should not continue to hold the post held by him, he shall make a declaration to that effect in his report to the competent authority who shall accept it and act upon it.
- In other words, if the public servant is the Chief Minister or a Minister, he shall forthwith resign his office. Such a provision **does not exist in any of the State laws or the Lokpal Act of the Centre**.

What is the Concept of Lokpal and Lokayuktas?

- The **Lokpal and Lokayukta Act, 2013** provided for the **establishment of Lokpal for the Union and Lokayukta for States**.
- These institutions **are statutory bodies** without any constitutional status.
- They **perform the function of an “ombudsman”** and inquire into allegations of corruption against certain public functionaries and for related matters.
- The **Lokpal and Lokayuktas Act, 2013 provides for establishing a Lokpal** headed by a **Chairperson**, who is or has been a **Chief Justice of India, or is or has been a judge of the Supreme Court, or an eminent person** who fulfills eligibility criteria as specified.
 - Of its **other members**, not exceeding eight, 50% are to be judicial members, provided that not less than 50% belong to the SCs, STs, OBCs, minorities, or are women.
 - The **Lokpal was appointed in March 2019** and it started functioning since March 2020 when its rules were framed.
 - The Lokpal is at present headed by **former Chief Justice of Jharkhand High Court Pradip Kumar Mohanty**.

- The **Lokpal has jurisdiction** to inquire into allegations of corruption against anyone who is or has been **Prime Minister, or a Minister in the Union government, or a Member of Parliament**, as well as officials of the Union government under Groups A, B, C and D.
- Also covered are **chairpersons, members, officers and directors of any board, corporation, society, trust or autonomous body** either established by an Act of Parliament or wholly or partly funded by the Centre.
- It also **covers any society or trust or body that receives foreign contributions above Rs. 10 lakhs**.

What are the Concerns related to Lokayukta Act?

- The Lokayukta law was **enacted to inquire into cases of corruption of public functionaries** such as Ministers, legislators, etc. who are covered by the Prevention of Corruption Act. This Act **does not include office bearers of political parties** in its definition clause.
 - Basically, the Prevention of **Corruption** Act deals with corruption in the government and allied agencies, statutory bodies, elected bodies, etc. **The functionaries of political parties do not come within the mischief of this law**.
 - So, it is difficult to understand how they can be brought **within the sweep of the Lokayukta Act**.
- Another problematic provision in this law is the one which deals with the reports of Lokayukta (Section 12).
 - It says that the Lokayukta shall, **on the allegation of corruption being substantiated, send the findings along** with recommendation of action to the competent authority who is required to take action as recommended by the Lokayukta.
 - It further says that **if the Lokayukta is satisfied by the action** taken by the competent authority, **he shall close the case**. The question is **how the Lokayukta can close a corruption case which is a criminal case** and which invites imprisonment for three to seven years.
 - **Lokpal files the case in court after the investigation**. There is **no provision** in the central law under which the **Lokpal can close the case before it reaches the court**.

Note:

India's Vaccination Success Story

Why in News?

As India has achieved remarkable feats with **childhood vaccination and continues to do so with Covid-19 vaccination**.

- It has overcome challenges across time and geography to **reach much of its population**, ensure last-mile delivery, finance a sustained large-scale operation at the government level, and develop and sustain trust among the people.

What is Vaccination?

➤ About:

- The act of **administering the vaccine into the body** to help the immune system develop immunity from a disease **is termed as vaccination**.
 - Vaccination is one of the most **cost-effective public health interventions**, which saves lives by protecting people, especially children, from dreadful vaccine-preventable diseases.

➤ Significance:

- According to a recent study, vaccines have **prevented up to 3.7 crore deaths** in the last 20 years in low- and middle-income countries alone.
- **Economic and Social Benefit:**
 - It's estimated that for every rupee invested in immunization against 10 pathogens in **Lower Middle-Income Countries (LMICs)** from 2021-30, the return on investment will be 52 rupees.
- Since the discovery of the smallpox vaccine over two centuries ago, vaccines have effectively reduced the burden of diseases such as polio, measles, tetanus, whooping cough, influenza, and lately, Covid-19.

What are the India's Achievements in Vaccination?

➤ Background:

- India has a long history of successful vaccination with historical accounts of inoculation dating back to the 18th century.

- After being declared smallpox-free in 1977, India launched the **Expanded Programme on Immunization (EPI)** in 1978 and introduced the Bacillus Calmette-Guérin vaccine (**BCG**), Diphtheria, Tetanus, Pertussis (**DPT**), and Oral poliovirus vaccines (**OPV**) vaccines.

● **National Health Family Survey (NHFS) Data:**

- The childhood vaccination rates have consistently improved over the last two decades with the proportion of children who are **'fully vaccinated' reaching 76% as per the latest National Health Family Survey**.

➤ Initiatives and Achievements:

○ Sustainable Development Goals (SDGs):

- India has consistently **contributed to the global Sustainable Development Goals (SDGs)** by focusing on the immunization of newborns, infants, children, and pregnant women.

○ Universal Immunization Programme (UIP):

- Under it, India provides **vaccines against 11 diseases nationally and one disease sub-nationally**.
 - Further, targeting close to 2.7 crore newborns and 2.9 crore pregnant women every year.

○ Mass immunization campaigns:

- India launched an ambitious **Measles-Rubella (MR)** vaccination drive and **vaccinated over 3 crore children in three years** which **prevented tens of thousands of measles deaths** in children.

○ Mission Indradhanush:

- Since 2014, immunization activities have been intensified with catch-up rounds such as **Mission Indradhanush** to ensure that **full immunization coverage of 90% is achieved and sustained across the country**.

○ The **Pneumococcal Conjugate Vaccine (PCV)** was introduced and scaled up using Made-in-India vaccines to prevent rotaviral diarrhea and pneumococcal pneumonia in children.

○ Use of Technology:

- The use of technology like the **Electronic Vaccine Intelligence Network (eVIN)** system that digitizes the entire vaccine stock management, their logistics and temperature tracking at all levels of vaccine storage from national to the sub-district.

Note:



- A multi-faceted approach by the government helped the **entire population to achieve public ownership to be polio-free in 2014.**

What were the challenges faced by India during various vaccination drives?

- **Supply chain disruption during Covid-19:**
 - During the pandemic, lockdowns led to **disruptions in routine immunization services and the closure of health facilities.**
- **Vaccination Hesitancy:**
 - There was global collaboration to bring out vaccines at an unprecedented speed, also observed an **'infodemic-fueled' vaccine hesitancy in people who previously trusted vaccines.**

What are the Reasons for India's Success in Vaccination?

- **Capacity Building in Health:**
 - India has built up its **biomedical enterprise including research and development, and manufacturing capacity.**
 - The indigenously produced Rotavirus and PCV vaccines, and the speed with which India was able to indigenously produce two Covid-19 vaccines, are examples of the return on these investments.
- **Infrastructure:**
 - India also built its delivery infrastructure by **establishing cold chain systems**, and by developing and training a community health cadre of workers who established last-mile services.
- **Behavioural Communication campaign:**
 - The infrastructural developments were accompanied by an improvement on the **demand side through social and behavioural communication campaigns.**
- **Creating Awareness and Engagement:**
 - India uses various available platforms of communication to convey consistent and accurate information.
 - Community health workers such as **Accredited Social Health Activist (ASHAs) and Anganwadi workers** go door-to-door to provide information and identify the missed-out children and pregnant women for any due dose.

- While **national leaders and celebrities spreading messages through mass media has proven to be useful**, engagement with local community influencers who are "closer" to people has also tremendously helped build vaccine confidence

Bihar to Turn Liquor Bottles into Bangles

Why in News?

Bihar is preparing to make glass bangles out of **seized liquor bottles**, through its Rural Livelihoods Promotion Programme, known as JEEViKA.

- These bottles will be given to JEEViKA workers who have been trained in bangle-making. The programme will set up a factory for this.
- Funded by the World Bank, JEEVIKA is a **rural social and economic empowerment programme** that comes under Bihar's rural development department.

What is the Economic Viability of the Move?

- Some are apprehensive about the **economic viability of the government's new "innovative" idea** of making glass bangles out of seized liquor bottles.
- It may sound like an innovative idea but **in making glass bangles other materials too are used like limestone and soda.**
- There are several **small and big established factories in places like Faizabad, Mumbai and Hyderabad which constitute about 80%** of glass bangle-making products.
- The seized illegal liquor bottles **will not be enough to sustain a glass bangle-making factory's economic viability.**

What are Bihar's Liquor Prohibition and Related Issues?

- **About:**
 - Introduced on 5 April 2016, the **Bihar Prohibition and Excise Act, 2016**, imposed a total ban on alcohol in the state.
 - In March 2022, the Bihar assembly passed a Bill amending the prohibition Act.

Note:

- Called the Bihar Prohibition and Excise (Amendment) Bill, 2022, the law says **people caught consuming liquor will now have to pay a fine** before a magistrate and won't be sent to jail.
 - The amendment is still awaiting implementation after the Patna High Court voiced its reservations about judicial power being vested in officials designated as special executive magistrates in districts and subdivisions.
- **Issues:**
 - As a result, the old system of arrest continues — data from the excise department shows that in August 2022 alone, **30,000 persons were arrested for violating liquor laws**.
 - The liquor prohibition policy has been the subject of many controversies — chief among them is the allegation that the **law has choked up the state's judicial processes**.
 - Liquor law violations have led to overcrowding of jails in Bihar. There are around **1.5 lakh people in Bihar jails for the violations**.
 - Most of them belong to the lower and downtrodden classes of society who can't bribe their way out of prison.

PM SHRI Schools

Why in News?

On the occasion of **Teacher's Day 2022**, the Prime Minister of India announced a new initiative - **PM SHRI Schools (PM Schools for Rising India)**.

- It will be a laboratory for the new **National Education Policy (NEP)** and under the first phase, 14,500 schools will be upgraded.

Why is Teacher's Day Celebrated in India?

- Teachers' Day is celebrated every year, **since 1962**, on **September 5**, to recognise and celebrate the **works of educators including teachers, researchers and professors in India**.
- After **Dr Sarvepalli Radhakrishnan** took charge as the President of India in 1962, some students sought permission from him to celebrate his birthday.



Dr Radhakrishnan, however, did not approve any fancy celebration but rather requested that the day be observed as **Teachers' Day**.

➤ About Radhakrishnan:

- **Birth:**
 - He was born into a Telugu family in Tiruttani town of Tamil Nadu, on September 5, 1888.
- **Academics:**
 - He studied **philosophy** at the Christian College, Madras.
 - After completing his degree, he became a **Professor of Philosophy at Madras Presidency College** and then subsequently **Professor of Philosophy at the University of Mysore**.
- **Employment:**
 - He served as the **first Vice-President of India** from 1952 to 1962 and the **second President of India** from 1962 to 1967.
 - He was also the **Ambassador of India to the Soviet Union** from 1949 to 1952.
 - He also served as the **fourth Vice-Chancellor of Banaras Hindu University** from 1939 to 1948.
- **Recognition:**
 - In 1984, he was posthumously (after death) awarded the **Bharat Ratna**.
- **Notable Works:**
 - Reign of Religion in Contemporary Philosophy, Philosophy of Rabindranath Tagore, The Hindu View of Life, Kalki or the Future of Civilisation, An Idealist View of Life, The Religion We Need, India and China, and Gautama the Buddha.

National Teachers Awards 2022

- On the Occasion of Teacher Day (5th September), the President of India conferred the National Teachers Awards 2022 to **45 exceptional teachers** from across India today.
- The coveted prize was awarded to teachers from various states including Telangana, Maharashtra, Haryana, Himachal Pradesh, and Punjab.
- Every year on Teachers Day, the Ministry of Education organizes a national level function to confer the **National Awards to Teachers** to the best teachers in the country.

Note:

- Every winner of the National Teachers Awards is honored with a certificate of merit, a cash reward of Rs 50,000 and a silver medal.
- The National Awards to Teachers 2022 seek to celebrate the unique and major contributions of the teachers in the nation-building of India.
- The awards are conferred to honor those teachers who through their commitment and industry have not only improved the quality of school education but have also enriched the lives of their students.

What do we know about The Pradhan Mantri Schools for Rising India (PM-SHRI) Yojana?

- **About:**
 - It is a **centrally sponsored scheme** for upgradation and development of more than 14500 Schools across the country.
 - It aims at **strengthening the selected existing schools** from amongst schools managed by Central Government/ State/ UT Government/ local bodies.
- **Significance:**
 - It will showcase all components of the **National Education Policy 2020** and act as **exemplar schools and also offer mentorship to other schools** in their vicinity.
 - The aim of these schools will not only be qualitative teaching, learning and cognitive development, **but also creating holistic and well-rounded individuals** equipped with key 21st century skills.
 - **Pedagogy adopted** in these schools will be **more experiential, holistic, integrated**, play/toy-based, inquiry-driven, discovery-oriented, learner-centred, discussion-based, flexible and enjoyable.
 - Focus will be on **achieving proficiency in learning outcomes** of every child in every grade.
 - Assessment at all levels will be based on **conceptual understanding and application of knowledge** to real life situations and will be competency-based.
 - These schools will be equipped with **modern infrastructure** including labs, smart classrooms, libraries, sports equipment, art room etc. which is inclusive and accessible.

- These schools shall also be developed as **green schools** with **water conservation, waste recycling, energy-efficient infrastructure and integration of organic lifestyle** in curriculum.

Pradhan Mantri Kaushal Vikas Yojana

Why in News?

Recently, the Ministry of Education informed Lok Sabha that, during 2021-22, more than 3 Lakh women were trained under **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** scheme.

What is PMKVY?

- **Background:**
 - Skill India Mission was launched by the government in 2015 under which the flagship scheme **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** is run.
 - It aims to train **over 40 crore people in India in different skills by 2022**. It aims at **vocational training and certification of Indian youth** for a better livelihood and respect in the society.
 - PMKVY is implemented by the **National Skills Development Corporation (NSDC)** under the guidance of the Ministry of Skill Development and Entrepreneurship (MSDE).

KEY COMPONENTS OF THE SCHEME



- **PMKVY 1.0:**
 - **Launch:** India's largest Skill Certification Scheme - **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)** - was launched on 15th July, 2015 (**World Youth Skills Day**).
 - **Aim:** To encourage and promote **skill development in the country by providing free short duration skill training** and incentivizing this by providing monetary rewards to youth for skill certification.
 - **Key Components:** Short Term Training, Special Projects, **Recognition of Prior Learning**, Kaushal & Rozgar Mela, etc.
 - **Outcome:** In 2015-16, 19.85 lakh candidates were trained.

Note:

- **PMKVY 2.0:**
 - **Coverage:** PMKVY 2016-20 (PMKVY 2.0) was launched by scaling up both in terms of Sector and Geography and by greater alignment with other missions of the Government of India like **Make in India, Digital India, Swachh Bharat**, etc.
 - **Budget:** Rs. 12,000 Crore.
 - **Implementation Through Two Components:**
 - **Centrally Sponsored Centrally Managed (CSCM):** This component was implemented by National Skill Development Corporation. 75% of the PMKVY 2016-20 funds and corresponding physical targets have been allocated under CSCM.
 - **Centrally Sponsored State Managed (CSSM):** This component was implemented by State Governments through State Skill Development Missions (SSDMs). 25% of the PMKVY 2016-20 funds and corresponding physical targets have been allocated under CSSM.
 - **Outcome:** More than 1.2 Crore youth have been trained/oriented through an improved standardized skilling ecosystem in the country under PMKVY 1.0 and PMKVY 2.0.
- **PMKVY 3.0:**
 - **Coverage:** Launched in 717 districts, 28 States/eight UTs, PMKVY 3.0 is a step towards '**Atmanirbhar Bharat**'.
 - **Implementation:** It will be implemented in a more decentralized structure with greater responsibilities and support from States/UTs and Districts.
 - District Skill Committees (DSCs), under the guidance of State Skill Development Missions (SSDM), shall play a key role in addressing the skill gap and assessing demand at the district level.
 - **Features:**
 - It envisages training of eight lakh candidates over a scheme period of 2020-2021 with an outlay of Rs. 948.90 crore.
 - It will be **more trainee- and learner-centric**. The focus is on bridging the demand-supply gap by promoting skill development in areas of new-age and **Industry 4.0 job roles**.
 - It will be a propagator of vocational education at an early level for youth to capitalize on industry-linked opportunities.

- The **National Educational Policy 2020** also puts focus on vocational training for holistic growth and increased employability.
- By taking the bottom-up approach to training, it will identify job roles that have demand at the local level and skill the youth, linking them to these opportunities (**Vocal for Local**).
- It will encourage healthy competition between states by making available increased allocation to those states that perform better.

Civil Servants and Digital Literacy

Why in News?

Recently, Microsoft has partnered with the Ministry of Skill Development and Entrepreneurship (MSDE), and Capacity Building Commission (CBC) to empower India's civil servants with future-ready skills.

- The partnership under the project '**Capacity Building by MSDE in Microsoft Digital Productivity Skills**' aims to enhance the functional computer literacy of nearly 2.5 million civil servants of Government of India (GoI).
- This project is in line with the **Mission Karmayogi**.

What is Digital Literacy?

- Digital literacy refers to the wide range of skills, which are necessary to emerge successful and adapt to the digital world.
- Since the print mediums are facing stagnation, the ability to grasp information found online becomes important.
- People and students who lack digital literacy skills may soon find themselves tough to gain access to information which is available online.

Why is Digital Literacy important for Civil Servants?

- **To Provide Efficient and Effective Citizen Centric Services:**
 - Digital Literacy will **empower India's civil servants to provide efficient and effective citizen centric services** to the vulnerable and underprivileged sections of the society.
 - It will **enable them to deliver last mile social welfare services**.

Note:

- **Bridging the Competency Gap:**
 - One of the major competency gaps identified in various job roles among the civil servants is the **lack of digital productivity application skills** while working on Microsoft Office tools like Word, Excel, and PowerPoint presentation, at a professional level. So digital empowerment will help in bridging competency Gaps.

What Competencies will the Civil servants of the Future Need?

- **Unifying Framework across Various Sector:**
 - There is **currently no unifying framework** across the public sector, private sector and civil society.
 - While the technical competencies that civil servants need are similar to those required in the private sector, the digital governance competencies are something else entirely.
 - There is a **need for a shared language and understanding of what Artificial Intelligence (AI) for the public good is.**
- **Scaling up Digital Solutions:**
 - **Public services face difficulties in scaling up digital solutions**, due to infrastructure gaps.
 - Sometimes, the solutions from the private sector are not ready for the public sector. So, the **need is to design technology for the public sector.**
- **Bridging Cooperation Gap:**
 - The government **should never be viewed as a singular entity**, but rather be encouraged to communicate with one another.
 - Additionally, the **need is to engage existing institutions and foster collaborations instead of reinventing the wheel.**

Foundational Learning Survey

Why in News?

Recently, the nationwide **Foundational Learning Survey (FLS)** was carried out jointly by the **Union Ministry of Education** and the **National Council of Educational Research and Training (NCERT)**.

- **More than 50% of the assessed class III children from Delhi** have either “**limited**” foundational numeracy skills or “**lacking the most basic knowledge and skills**”.
- In the **National Achievement Survey (NAS)** also Delhi featured in the **five states with the lowest average scores** in both **Math and Language at the class III level.**

What do we need to know about the Foundational Learning Survey?

- **About: Foundational Learning Survey (FLS)** aims to set-up benchmarks for reading with comprehension in 22 Indian languages.
- **Background:** FLS was undertaken in 2022 as a crucial step towards strengthening efforts for Foundational Literacy and Numeracy (FLN) under the **NIPUN Bharat Mission.**
- **Samples Size:** FLS was carried out among **86,000 class III children in 10,000 schools** in the country.
 - In Delhi, the sample size was 2,945 students from across 515 schools.
- **Categorization:**
 - **Based on children’s performances, they were placed in four categories:**
 - Those who lacked the **most basic knowledge and skills**
 - Those who have **limited knowledge and skills**
 - Those who have **developed sufficient knowledge and skill**
 - Those who have **developed superior knowledge**
- **Findings:**
 - **National:**
 - **Overall Figures:**
 - 11% of students lack **the most basic knowledge and skills.**
 - 37% of the students have **limited knowledge and skills.**
 - **Language:**
 - **English:**
 - ◆ 15% of students were found to be **lacking even basic skills.**
 - ◆ 30% had **limited skills.**
 - ◆ 21% had **sufficient skills.**
 - ◆ 34% had **fairly superior skills.**
 - **Hindi:**
 - ◆ 21% fell under the **worst performing bracket**

Note:

◆ 32% had **limited proficiency**.

- **States:** In numeracy, **Tamil Nadu (29%)** had the **maximum number of students** who could not complete the most basic grade-level tasks, followed by Jammu and Kashmir (28%), Assam, Chhattisgarh and Gujarat (18%).

➤ **Basis of Findings:**

- Findings of the FLS are **based on interviews with each individual participant**.
 - While the National Achievement Survey evaluated learning outcomes based on Multiple Choice Questions.

What are the Government's Initiatives for the Education Sector?

- **NIPUN Bharat Mission**
- **Sarva Shiksha Abhiyan**
- **Mid Day Meal Scheme**

What is the National Council of Educational Research and Training (NCERT)?

➤ **About:**

- **The National Council of Educational Research and Training (NCERT)** is an **autonomous organisation** set up in 1961 by the Government of India to assist and advise the **Central and State Governments** on policies and programmes for qualitative improvement in school education.

➤ **Constituent Units:**

- **The major constituent units of NCERT which are located in different regions of the country are:**
 - National Institute of Education (NIE)
 - Central Institute of Educational Technology (CIET)
 - Pandit Sundarlal Sharma Central Institute of Vocational Education (PSSCIVE)
 - Regional Institute of Education (RIE)

Pradhan Mantri Matsya Sampada Yojana (PMMSY)

Why in News?

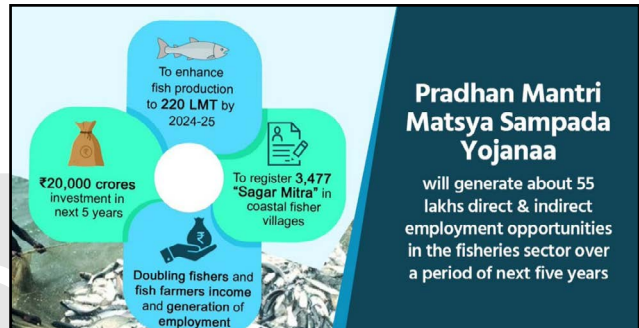
Recently, the **second Anniversary of Pradhan Mantri Matsya Sampada Yojana (PMMSY)** was celebrated.

- PMMSY envisages **generation of 68 lakh Employment by the end of 2024-25**.

What is PMSSY?

➤ **About:**

- PMMSY was introduced by the Government of India, as part of the **'Atma Nirbhar Bharat'** package with the investment of **Rs. 20,050 crores**, the **highest ever investment in the Fishery sector**.
- Fishermen are provided with **insurance cover, financial assistance and a facility of Kisan Credit Card** as well.



➤ **Aim and Objectives:**

- PMMSY aims towards the purpose of **rural development by utilizing rural resources and boosting rural economy in a rapid way**.
- The main motto of PMMSY is **'Reform, Perform and Transform'** in the fisheries sector.
- The **reforms and initiatives in PMMSY scheme** have been inculcated in:
 - **Core & trunk infrastructure development**
 - **Modernization** of Indian fisheries by undertaking the efforts such as:
 - Push for **new fishing harbours/landing centres**
 - Modernisation and **mechanization of traditional fishermen crafts-trawlers-deep sea going vessels**
 - Provision of **post-harvest facilities to reduce post-harvest loss**
 - **Cold chains facilities**
 - **Clean and hygienic fish markets**
 - **Two wheelers** with ice boxes
- **Achievements:**
 - **Fisheries sector** showed **impressive growth of 14.3%** from 2019-20 to 2021-22.

Note:

- Fish production reached an all-time high of 141.64 lakh tons during 2019-20 to 161.87 lakh tons during 2021-22.
- Fisheries sector saws all-time high exports of 13.64 lakh tonnes valuing Rs 57,587 crore dominated by exports of shrimps.
- Currently, exports to 123 countries are taking place including China, Thailand, Japan, Taiwan, Tunisia, the United States, Hong Kong, Kuwait, etc.
- PMMSY has **supported 31.47 lakh farmers under insurance coverage from 22 states and 7 UTs.**
- **Implementation:**
 - It is implemented as an **umbrella scheme with two separate components namely:**
 - **Central Sector Scheme:** The project cost will be borne by the Central government.
 - **Centrally Sponsored Scheme:** All the sub-components/activities will be implemented by the States/UTs and the cost will be shared between the Centre and State.
- **Forthcoming Plan:**
 - **Aquaculture promotion** will be undertaken especially in the **saline and alkaline areas of Northern India.**
 - Also, focus will be laid on **Aquatic health management** involving the address of diseases, antibiotic and residue issues which will be **supported by an integrated laboratory network.**

Wikipedia Content Moderation

Why in the News?

- Recently, India summoned officials of Wikipedia, in response to a national cricketer's Wikipedia page being edited with misleading information.
- The Minister of State for Electronics and IT has expressed that **no intermediary operating in India can permit this type of misinformation**, as it violated the government's expectation of a safe and trusted internet.
 - **Content Moderation** refers to the process of ensuring user-generated content upholds platform-specific guidelines and rules to establish the suitability of the content for publishing.

What is Wikipedia?

- **About:**
 - Wikipedia is a **free Internet-based encyclopedia**, started in 2001, that **operates under an open-source management style.**
 - It is overseen by the nonprofit "**Wikimedia Foundation**".
 - It is maintained by a **community of volunteers** through open collaboration and a wiki-based editing system.
 - **Anyone can contribute** to their pool of knowledge by making edits to existing pages for updating or correction and can even add new pages.
- **Structure of Wikipedia:**
 - The architecture of Wikipedia is that of an **intermediary i.e., it hosts content generated by its users.**
- **Responsibility for Content:**
 - Under the majority of laws regulating online content, **intermediaries are endowed with immunity** from the user generated content they host, provided they maintain **some due diligence over their platforms.**
 - **In previous challenges to the content on wikipedia**, it has been ruled that the **Wikimedia Foundation does not own the content**, and does not have the **legal responsibility for it.**
 - However, administrators or editors **have taken notice of the content concerns** arising out of the situation and have made suitable edits.
 - **Wikimedia** can also "contribute, monitor or delete content" for legal compliance.
 - Therefore, it is arguable that **since Wikimedia can exercise such power, it can be held responsible for illegal content being hosted on Wikipedia.**

What can the Government do regarding Online Content?

- **Section 69A of IT Act 2000:**
 - **Section 69 (A) of the Information Technology Act** confers on the **Central and State governments** the power to issue directions "**to intercept, monitor or decrypt any information generated, transmitted, received or stored in any computer resource**".

Note:

- **Section 69A** enables the Centre to ask any **agency** of the government, or any **intermediary**, to **block access** to the public of any information generated, transmitted, received or stored or hosted on any computer resource.
 - **The term ‘intermediaries’** includes providers of telecom service, network service, Internet service and web hosting, besides search engines, online payment and auction sites, online marketplaces and cyber cafes.
- Any such request for blocking access **must be based on reasons given in writing.**
 - In 2020, the government had asked the **Wikimedia Foundation to remove a map** from one of its pages that incorrectly showed **Aksai Chin to be a part of China.**
 - In that instance, the government had proposed the use of section 69A, IT Act, 2000 for violating the territorial integrity of India.
- **Section 79 of IT Act 2000:**
 - Under **Section 79 of Information Technology Act 2000**, intermediaries can claim the “**safe harbour**” of not being responsible for the content they host, **considering they abide by due diligence requirements under the Act and its Rules.**
- **IT Rules 2021:**
 - As per the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**, there are certain categories of information that an intermediary **should not allow to be hosted or uploaded on its platform which includes:**
 - Information that is “**patently false and untrue, and is written or published in any form, with the intent to mislead or harass a person, entity or agency for financial gain or to cause any injury to any person**”.
 - **In the Context of Wikimedia Foundation:**
 - Although Wikimedia Foundation does not own the information hosted on Wikipedia, **once Wikimedia Foundation has “actual knowledge”** of such content being hosted on its platform, **it would be held responsible for the same according to Indian Law.**
 - **Actual Knowledge** means when an intermediary has been notified by either a court order or through an order of the appropriate agency demanding removal of the offending content.

NITI Aayog-like Bodies in States

Why in News?

The **National Institution for Transforming India (NITI Aayog)** will assist each state to set up similar bodies, replacing their planning boards for **faster and inclusive economic growth** along with the **vision of becoming a developed nation by 2047.**

What is the Need for Setting up NITI Aayog-like Bodies in States?

- States are the Indian economy’s growth drivers. The **national gross domestic product (GDP) growth is an aggregation of states’ rates of growth** except for sectors like defence, railways and highways.
 - **Health, education and skilling are primarily with the state government.**
- State governments’ role is **critical to improving ease of doing business, land reforms, infrastructure development, credit flows and urbanisation**, all of which are vital for **sustained economic growth.**
- Most states so far have **done little to rejuvenate their planning departments/boards**, which earlier dealt with the Planning Commission and prepared parallel state five year-plans with the Centre.
 - Most states’ **planning departments, with huge manpower, are almost defunct and have no clarity what work they will do.**

What is NITI Aayog?

- NITI Aayog is the **apex public policy think tank** of the Government of India.
- It replaced the **Planning Commission on 1st January, 2015** with emphasis on **‘Bottom –Up’ approach to envisage the vision of Maximum Governance, Minimum Government**, echoing the spirit of **‘Cooperative Federalism’.**
- It has two Hubs.
 - **Team India Hub** acts as interface **between States and Centre.**
 - **Knowledge and Innovation Hub** builds the think-tank acumen of NITI Aayog.

Note:



What is the Agenda for Implementation?

- Initially, it aims for 8-10 states to set up such bodies, before reaching out to all by March 2023.
 - Four states *i.e.*, **Karnataka, Uttar Pradesh, Madhya Pradesh and Assam** have already begun work in this regard.
 - Maharashtra, Odisha, Andhra Pradesh and Gujarat will likely begin work soon.
- A **plan has been chalked out** by NITI Aayog to:
 - Help in the **creation of teams that will examine the existing structure** of state planning boards.
 - Conceptualise the **State Institution for Transformation (SIT)** in the next 4-6 months.
 - **Lateral entry of professionals will be encouraged in SITs** to undertake high-quality analytical work and policy recommendations.
- Besides reorienting state planning boards as SITs, a blueprint will be made on:

- **Guiding states in policy formulation.**
- **Monitoring and evaluation of government policies and programmes.**
- **Suggesting better technology or models for delivery of schemes.**

Addition of Tribes to ST List

Why in News?

Recently, government has approved the inclusion of certain communities in the lists of Scheduled Tribes in Chhattisgarh, Tamil Nadu, Karnataka, Himachal Pradesh and Uttar Pradesh, fulfilling long-pending demands from these states.

What is the Process of Inclusion in the ST List?

- The process to include tribes in the ST list begins with the **recommendation from the respective State governments**, which are then sent to the Tribal Affairs Ministry, which reviews and sends them to the Registrar General of India for approval.
- This is followed by the **National Commission for Scheduled Tribes'** approval before the list is sent to the Cabinet for a final decision.

What do we Know about the Newly Added Tribe?

- **Hatti Tribe (Himachal Pradesh):**
 - The Hattis are a **close-knit community** who got their name from their tradition of selling homegrown vegetables, crops, meat and wool etc. at small markets called 'haat' in towns.
 - The community has been **making the demand since 1967**, when tribal status was accorded to people living in the Jaunsar Bawar area of **Uttarakhand**, which shares a border with Sirmour district.
 - Their demand for **tribal status gained strength because of resolutions** passed at various maha Khumblis over the years.
- **Narikoravan and Kurivikkaran (Tamil Nadu):**
 - Nomadic tribes like the Narikuravas and Kuruvikaras (jackal catchers and bird eaters) pride themselves on their traditional occupations of hunting and gathering.

Note:

- **Binjhia (Chhattisgarh):**
 - The Binjhia in Chhattisgarh were listed as ST in Jharkhand and Odisha but not in Chhattisgarh.
 - The Binjhia are **non-vegetarians and agriculture is the mainstay** of their economy. They do not eat beef and pork but consume alcoholic drinks including the handia (rice beer).
- **Gond Community (Uttar Pradesh):**
 - The **Cabinet approved a proposal to bring the Gond community residing in 13 districts of Uttar Pradesh, under the ST list** from the Scheduled Caste list.
 - This includes the **five subcategories of the Gond community** (Dhuria, Nayak, Ojha, Pathari, and Rajgond).
- **'Betta-Kuruba' (Karnataka):**
 - The ST status granted to the Betta-Kuruba community as a synonym of Kadu Kuruba of Karnataka.
 - Betta-Kuruba community has been demanding to include in the ST category for the last 30 years.

What will be the Benefits in the Inclusion in the ST List?

- The move will **enable members of the communities newly listed in the revised list of Scheduled Tribes to derive benefits** meant for STs under the existing schemes of the government.
- **Some of the major benefits include** post-matric scholarship, overseas scholarship and the national fellowship, besides education, concessional loans from the National Scheduled Tribes Finance and Development Corporation, and hostels for students.
- In addition, they will **also be entitled to benefits of reservation** in services and admission to educational institutions as per the government policy.

What is the Status of Scheduled Tribes in India?

- **About:**
 - As per Census-1931, Schedule tribes are termed as "backward tribes" living in the "Excluded" and "Partially Excluded" areas. The Government of India Act of 1935 called for the first time for representatives of "backward tribes" in provincial assemblies.

- The **Constitution does not define the criteria for recognition of Scheduled Tribes** and hence the definition contained in 1931 Census was used in the initial years after independence.
- However, **Article 366(25) of the Constitution only provides process to define Scheduled Tribes:** "Scheduled Tribes means such tribes or tribal communities or parts of or groups within such tribes or tribal communities as are deemed under Article 342 to be Scheduled Tribes for the purposes of this Constitution."
 - **342(1):** The President may with respect to any State or Union Territory, and where it is a State, after consultation with the Governor, by a public notification, specify the tribes or tribal communities or part of or groups within tribes or tribal communities as Scheduled Tribe in relation to that State or Union Territory.
- The **Fifth Schedule of the Constitution lays out provision for Administration and Control** of Scheduled Areas and Scheduled Tribes in states other than Assam, Meghalaya, Tripura and Mizoram.
- The **Sixth Schedule deals with the administration** of the tribal areas in Assam, Meghalaya, Tripura and Mizoram.

➤ **Legal Provisions:**

- Protection of Civil Rights Act, 1955 against Untouchability.
- **Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989.**
- **Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996.**
- **Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.**

➤ **Related Initiatives:**

- **TRIFED**
- **Digital Transformation of Tribal Schools**
- **Development of PVTGs**
- **Pradhan Mantri Van Dhan Yojana**

➤ **Related Committees:**

- **Xaxa Committee (2013)**
- Bhuria Commission (2002-2004)
- Lokur Committee (1965)



Note:

International Relations

Highlights

- India Qatar GI Products Meet
- Mikhail Gorbachev and Cold War
- IMF Bailout to Sri Lanka
- India-South Africa Bilateral Meeting
- India Bangladesh Agreements
- Uyghur Rights Abuse
- China Objects Indo-US Military Drill Near LAC
- Indo-China Disengagement at Hot Springs & Gogra Post
- US - Indonesia Military Drill
- Indo-Pacific Economic Framework
- Tenth Non-Proliferation Treaty Review Conference
- Japan & India to Boost Defence Ties
- India to host G20 Summit in 2023
- G20 Education Ministers' Meeting
- India Mexico Relations
- Ukraine's Counter-Offensive
- Issue of Tamilians in Sri Lanka

India Qatar GI Products Meet

Why in News?

Recently, the government of India organized a **Virtual Networking Meet** for **Agri and Food Geographical Indication (GI) products** in association with the **Embassy of India, Doha and Indian Business and Professionals Council (IBPC) Qatar**.

- This Meet provided a **platform for interaction** between the **India exporters and importers of Qatar** on the strength of India in **export of agri and food products of Indian origin** and distinct attributes.

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.
- **Agri GI Products:**
 - Presently, there are more than **400 registered Geographical Indications** in India of which around **150 are agricultural and food products GI**.
 - More than **100 registered GI products fall under the category of Agriculture and Processed Food Export Development Authority (APEDA) scheduled products** (fresh fruits and vegetables, processed foods, animal products and cereals).

Note:



How has India's Relations with Qatar been?

➤ Developments during Indian Vice President visit June 2022:

- **India-Qatar Start Up bridge:**
 - **The Vice President** launched the "India-Qatar Start Up bridge" that aims to link the **start-up ecosystems** of the two countries.
 - India has emerged as the **3rd largest ecosystem** for startups globally, with over 70,000 registered Startups.
 - India is home to 100 unicorns with a total valuation of over USD 300 billion.
- **Environment and Climate Change:**
 - The Vice President invited Qatar, as India's trusted partner in its **energy security**, to be a partner in this journey for sustainability and join the **International Solar Alliance (ISA)**.
- **Joint Business Council Between Business Chambers:**
 - A **Joint Business Council** between **Business Chambers of India and Qatar** has been established and that a **Joint Task Force on Investments** would take its work forward.
 - **Invest India and Qatar Investment Promotion Agency** was appreciated for entering into a partnership of guiding and assisting businesses on both sides to tap new and emerging opportunities.
- **Collaborations at Multilateral Forums:**
 - Greater collaboration between **India and Qatar** at multilateral forums like the **Inter Parliamentary Union (IPU), Asian Parliamentary Assembly**, and others was emphasized.
- **Trade:**
 - **India's Exports to Qatar:**
 - **In 2020**, India exported **USD 1.34 Billion to Qatar**.
 - The main products that India exported to Qatar are Rice, Jewellery and Gold.
 - During the last 25 years the exports of India to Qatar have **increased at an annualized rate of 16.5%**, from USD 29.3 Million in 1995 to USD 1.34 Billion in 2020.
 - **India's Imports from Qatar:**
 - **In 2020**, Qatar exported **USD 7.25 Billion to India**. The main products that Qatar exported

to India were Petroleum Gas, Crude Petroleum and Halogenated Hydrocarbons.

- During the last 25 years the exports of Qatar to India have increased at an annualized rate of 19%, from USD 94.4Million in 1995 to USD 7.25 Billion in 2020.
- Qatar accounts for **41% of India's total natural gas imports**.

What is the Agriculture and Processed Food Export Development Authority (APEDA)?

➤ About:

- **APEDA** was established by the **Government of India** under the **Agricultural and Processed Food Products Export Development Authority Act** passed by the **Parliament** in December, 1985.
- The Authority replaced the **Processed Food Export Promotion Council (PFEPCC)**.
- APEDA, which comes under the **Ministry of Commerce & Industry** has contributed significantly in promoting export of agriculture and processed food products with a share of around 50% (USD 24.77 bn) in overall agri exports during 2021-22.

➤ Functions:

- **Development of industries** relating to the scheduled products for export by way of providing **financial assistance**.
- **Registration** of persons as exporters of the scheduled products on payment of such fees as may be prescribed.
- **Fixing of standards and specifications** for the scheduled products for the purpose of exports.
- Improving **packaging of the Scheduled products**.
- Improving **marketing of the Scheduled products** outside India.
- **Promotion** of export-oriented production and development of the Scheduled products.

Mikhail Gorbachev and Cold War

Why in News?

Recently, the last leader of the Soviet Union, **Mikhail Gorbachev** died at the age of 91.

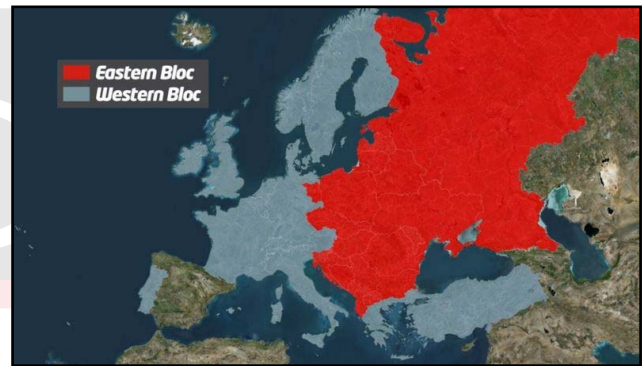
Note:

What was the contribution of Mikhail Gorbachev?

- **About:**
 - He joined **Communist Party of the Soviet Union** as a youth, and after Stalin's death, he became a **keen proponent of De-Stalinisation reforms started by Nikita Khrushchev**.
 - He was selected as the First Party Secretary of the Stavropol Regional Committee in 1970.
 - In 1985 when he was elected as the General Secretary of the Communist Party of the Soviet Union, in other words, **the de facto ruler of the government**.
- **Achievements:**
 - **Major Reforms:**
 - He introduced the policies of **"glasnost" and "perestroika"** which helped in **freedom of speech** and press and **the economic expansion** of the economy.
 - **Perestroika** means **"restructuring,"** specifically of the **Communist economy and political system**, by incorporating some features of a market economy into the Soviet economy. It also resulted in the decentralization of financial decision-making.
 - **Glasnost** means **"openness,"** particularly openness of information and began the democratization of the Soviet Union.
 - **Focused on Arms Reduction:**
 - He forged arms reduction deals with the United States and partnerships with Western powers to **remove the Iron Curtain** that had divided Europe since World War Two and reunify Germany.
 - **The iron curtain** is the political, military, and ideological barrier erected by the **Soviet Union after World War II** to seal off itself and its dependent eastern and central European allies from open contact with the West and other noncommunist areas.
 - **Ended the Cold War:**
 - Gorbachev is credited with bringing the **Cold War** to an end, which resulted in the **dissolution of the USSR into separate countries**.
 - **Nobel Peace Prize:**
 - He was awarded the **Nobel Peace Prize** in 1990 for his efforts to end the **Cold War between the US and USSR**.

- **Indian Connection:**
 - Gorbachev visited **India twice, in 1986 and 1988**.
 - His objective was **to extend his disarmament initiatives in Europe to Asia and to secure Indian cooperation**.
 - It was Gorbachev's **first visit to a non-Warsaw Pact country** after taking over as leader of the Soviet Union.
 - The then Prime Minister Rajiv hailed Gorbachev as a **"crusader for peace"**.
 - His address to **India's Parliament** during the visit received hyperbolic coverage in the Indian and Soviet press and was seen as a high point of Indian diplomacy.

What was the Cold War?



- **About:**
 - The Cold War was a **division between Russia and western countries (the US and its allies, like Britain)**, which started in the 1940s and lasted until 1991.
 - It was a war between **two ideas and ways of ruling - communism** (the east) and **capitalism** (the west).
 - The Russians operated a communist state (from 1922 to 1991), while western countries like the US were capitalist countries.
 - Throughout the Cold War, **communist and capitalist nations tried to outdo each other**, competing to develop the best technologies and weapons.
- **India's Role:**
 - **Non-Alignment Movement:**
 - The policy of **Non Alignment Movement (NAM)** **did not seek to formally align themselves** with either the United States or the Soviet Union, but sought to remain independent or neutral.

Note:

- The basic concept for the group originated in 1955 during discussions that took place at the **Asia-Africa Bandung Conference** held in Indonesia.
- The **first NAM Summit Conference** took place in Belgrade, **Yugoslavia, in September 1961**.
- **Purpose:**
 - The purpose of the organization was enumerated in **Havana Declaration of 1979** to ensure “the national independence, sovereignty, territorial integrity and security of non-aligned countries” in their struggle against imperialism, colonialism, neo-colonialism, racism, and all forms of foreign subjugation.
 - During the cold war era the NAM played a vital role in stabilizing the world order and preserving peace and security.
- **Neutral Stand:**
 - India was able to take **decisions and stances at the international level serving its own interest** rather than serving the interest of the superpowers.

IMF Bailout to Sri Lanka

Why in News?

Recently, The **International Monetary Fund (IMF)** approved a preliminary agreement with Sri Lanka on a four-year, **USD 2.9 billion bailout package** which is aimed at restoring economic stability and debt sustainability for the crisis-ridden south Asian nation.

What is the Bailout Package Offered to Sri Lanka?

- **Need:**
 - The **Economic Crisis** of Sri Lanka with USD 51 billion debt which was caused due to various reasons:
 - **The Easter bomb blasts of April 2019** in churches in Colombo
 - The government policy of **lower tax rates and wide-ranging subsidies for farmers** during their campaign.
 - The **Covid-19 pandemic in 2020** which impacted exports of tea, rubber, spices, garments and the tourism sector.

➤ **About:**

- The IMF package is to be **paid in tranches over the next four years, which is less than what India provided to Sri Lanka over four months**.
- The package must be approved by the IMF’s board of directors.
 - The approval is contingent on Sri Lanka’s international creditors - commercial lenders such as banks and asset managers, multilateral agencies, as well as bilateral creditors including China, Japan, and India agreeing to restructure its debt.

➤ **Benefits:**

- **Improve credit rating:**
 - It can boost the receiving country’s credit ratings, and the **confidence of international creditors and investors** who may then chip in to provide bridge financing to close the gaps between the tranches.

➤ **Aim:**

- Its program will aim to boost government revenue, encourage fiscal consolidation, introduce new pricing for fuel and electricity, hike social spending, bolster central bank autonomy, and rebuild depleted foreign reserves.
- The programme aims to reach a **primary surplus of 2.3% of GDP by 2024**.

What Measures are Taken by Sri Lanka’s Economy to Improve its Economy?

➤ **Increase in Revenue:**

- The country’s budget **aimed at increasing revenue to 15% of GDP by 2025 from 8.2% at the end of 2021** by reducing public debt.
 - An increase in VAT from 12 to 15%, and compulsory tax registration for everyone aged 18 years and older in order to widen personal income tax collections are among the measures.
 - Some 50 state-owned enterprises are up for privatisation.

➤ **Reduce the age of retirement:**

- The age of retirement in government and semi-government organisations has been **brought down to 60 from 65 and 62 respectively**.

Note:



➤ **Banking sector:**

- Staff and **depositors are to be offered a 20% shareholding in state banks to address recapitalization requirements** arising out of non-repayment of loans due to the economic meltdown.

What is the International Monetary Fund (IMF)?

➤ **About:**

- The **International Monetary Fund (IMF)** is an international organization that promotes global economic growth and financial stability, encourages international trade, and reduces poverty.

➤ **Conditionalities set by IMF:**

○ **About:**

- When a country borrows from the IMF, its government agrees to adjust its economic policies to overcome the problems that led it to seek financial aid.
 - These policy adjustments are conditions for IMF loans and serve to ensure that the country will be able to repay the IMF.
 - This system of conditionality is designed to promote national ownership of strong and effective policies.
- Conditionality helps countries **solve balance-of-payments problems** without resorting to measures that are harmful to national or international prosperity.
- **Policy commitments** agreed with country authorities can take different forms. They include:
 - **Prior actions:**
 - These are the steps a country agrees to **take before the IMF approves financing or completes a review.**
 - ◆ They ensure that a program will have the **necessary foundation for success.**
 - **Quantitative performance criteria (QPCs):**
 - Specific, measurable conditions for IMF lending always relate to **macroeconomic variables under the control of the authorities.**
 - ◆ Such variables include **monetary and credit aggregates, international reserves, fiscal balances, and external borrowing.**
 - **Indicative targets (ITs):**

- In addition to QPCs, **ITs may be set for quantitative indicators to assess progress in meeting a program's objectives.**
- **Structural benchmarks (SBs):**
 - These are **reform measures that often are non-quantifiable but are critical for achieving program goals** and are intended as markers to assess program implementation.

India-South Africa Bilateral Meeting

Why in News?

Recently, **India and South Africa** agreed to develop institutional mechanisms for **tie-ups between Higher Education Institutions (HEIs) & Skill Institutions.**

Why are the Key Highlights of the Meeting?

➤ **About:**

- The bilateral meeting was held in **Bali, Indonesia.**
- It was decided to develop institutional mechanisms for **educational tie-ups.**
- Also, it was agreed to set up a **Joint Working Group on Education** between the two countries.

➤ **Significance:**

- This would further **extend the cooperation** that already exists and also to realise the full potential of bilateral cooperation in education.
- Introduction of **National Education Policy (NEP)** has already paved the way for the **internationalisation of Indian education.** India and **South Africa** relations are close and friendly and are rooted in **shared values and interests.**
 - Institutional mechanisms for educational tie-ups would strengthen **the academic & skill development partnerships** and bilateral education cooperation.
 - Further, it will be helpful in **mutual recognition of skill qualifications & capacity building in skill development.**

Note:

How has been the India-South Africa Relations?

➤ Background:

- India's links with the **struggle for freedom and justice in South Africa** date back to the period during which **Mahatma Gandhi started his Satyagraha movement in South Africa** over a century ago.
- **India was** at the forefront of the international community **in its support to the anti-apartheid movement.**
 - It was the first country to sever trade relations with the apartheid Government (in 1946) and subsequently imposed a complete -- diplomatic, commercial, cultural and sports -- **embargo on South Africa.**
- After a gap of four decades, **India re-established trade and business ties in 1993, after South Africa ended** its institutionalised racial segregation (**apartheid**).
 - In November 1993, **diplomatic and consular relations were restored.**

➤ Political Relations:

- After South Africa achieved democracy in 1994, it was the **Red Fort Declaration on Strategic Partnership between India and South Africa, signed in March 1997** which set the parameters for a rekindled relationship.
- The Strategic Partnership between the two countries was again reaffirmed in the **Tshwane Declaration (October 2006).**
 - Both these declarations have been **instrumental mechanisms** that have contributed in the past to both South Africa and India for **achieving their respective national objectives.**
- India and South Africa have a long history of working together by **coordinating their views and efforts in institutions of global governance/ multilateral fora**, in order to achieve greater autonomy and ensure that the agenda of 'South' is prioritised.
 - For Example: **BRICS (Brazil, Russia, India, China and South Africa), IBSA (India, Brazil, and South Africa), G20 , Indian Ocean Rim Association (IORA) and World Trade Organisation (WTO).**

➤ Economic:

- In 2016, both the countries agreed to **collaborate in the defence sector, especially in terms of the opportunities available for South African private sector under 'Make in India' initiative**, energy sector, agro-processing, human resource development, and infrastructure development.
- Trade between India and South Africa has **exceeded the USD 10 billion target set by the leaders of the two countries in 2020.**

➤ Science & Technology:

- The Department of Science and Technology of both countries have collaborated, especially in the **Square Kilometer Array (SKA) project.**

➤ Culture:

- With the help of the **Indian Council for Cultural Relations (ICCR)**, an intensive programme of cultural exchanges is organised throughout South Africa including scholarships for South African nationals.
- The 9th **World Hindi Conference** was held in **September 2012** at Johannesburg.

➤ Indian Community:

- The major part of the **Indian origin community came to South Africa from 1860 onwards as farm labours.**
- South Africa is home to the **highest number of Indian Diaspora in the African continent**, with a total strength of 1,218,000 thereby constituting 3% of South Africa's total population.
 - Since 2003 onwards, **India has celebrated Pravasi Bhartiya Divas (PBD) each year on 9th January** (the day Mahatma Gandhi returned from South Africa to India).

India Bangladesh Agreements

Why in News?

Recently, the **Prime Minister of Bangladesh** has visited **India** and held talks with Indian Prime Minister.

- India and Bangladesh have **signed seven agreements** for **cooperation in areas** ranging from **sharing of river waters to space** and unveiled **new connectivity and energy initiatives.**

Note:



What are the Key Highlights of the Meeting?

- **The two sides have signed seven Memorandum of Understanding (MoU), which includes:**
 - The **withdrawal of water from the cross-border Kushiyara river.**
 - The agreement will **benefit southern Assam** in India and the **Sylhet region** of Bangladesh.
 - Cooperation in **space technology.**
 - Collaboration on **Information Technology** systems used by **railways in areas such as movement of freight.**
 - **Science and technology** cooperation.
 - Training of **Bangladesh Railway personnel** and **Bangladeshi judicial officers** in India.
 - Cooperation in broadcasting between **Prasar Bharati and Bangladesh Television.**
- **Thermal Power Project:**
 - The two nations unveiled the first unit of the **Maitree super thermal power project** being built in **Khulna division of Bangladesh** with **concessional funding from India.**
 - The unit was **synchronized with Bangladesh's power grid** in August 2022, and the project will generate 1,320MW, when completed.
- **Rushpa Rail Bridge:**
 - **The 5.13-km Rupsha rail bridge** was also inaugurated, a key part of the **64.7-km Khulna-Mongla port broad gauge railway project.**
 - The bridge was constructed with an **Indian line of credit** of **\$389 million.**

- It will increase **connectivity with Mongla, Bangladesh's second largest port.**
- **Loans and Advances:**
 - India has provided **concessional loans worth USD 9.5 billion** for development projects in Bangladesh, which includes:
 - Rail connectivity between **Khulna and Dhaka, Chilahati and Rajshah.**
 - Connecting **Mongla port with Darshana-Gede** at a cost of USD 312 million.
 - **The Parbatipur-Kaunia rail project** to facilitate the **transportation of fuel** is being built at a cost of USD 120 million.
 - Supply of **road construction equipment and machinery** worth USD 41 million to repair and maintain Bangladesh's road network.
- **Defence Procurement:**
 - In 2018, India has extended **USD 500 million defence Line of Credit (LoC)** to Bangladesh.
 - In May 2018, Defence public sector undertaking of Kolkata had signed a **Memorandum of Understanding** with Bangladesh to provide **assistance and know-how in the design and construction of warships.**
 - Dhaka has shared a **wish list of military platforms and systems** that its armed forces would like to procure from India.
 - **Bangladesh Army has approved procurement of three items:**
 - 5 Bridge Layer Tanks (BLT-72) at USD 10 million
 - 7 Portable Steel Bridges (Bailey) at USD 2.2 million
 - 1 Mine Protective Vehicles at USD 2.2 million.
 - **Other Proposed Procurements include:**
 - Off-road vehicles, heavy recovery vehicles, armoured engineer reconnaissance vehicles and bullet proof helmets.
 - Modernisation and extension of automobile assembling unit for a Bangladesh machine tools factory, supply of explosives, raw materials and tools
 - **The Bangladesh Navy** has proposed the procurement of a **logistics ship, floating dock, oil tanker, and an ocean-going tug.**

Note:

What is India's Vision on CEPA with Bangladesh?

➤ About:

- The Prime Minister of India has said that India and Bangladesh will soon commence negotiations on a Bilateral **Comprehensive Economic Partnership Agreement (CEPA)**.
- The CEPA is likely to focus on **trade in goods, services, and investment**, with a key objective being the **reduction of the trade gap between the two countries**.
 - For the year 2021, **India's imports from Bangladesh** stands at USD 1.76 billion and **exports to Bangladesh** stands at USD 14.09 billion, resulting in a **trade gap of USD 12.33 billion**.
- Bangladesh prepares to **graduate into a developing nation by 2026**, after which it may **no longer qualify for trade benefits that it currently enjoys as a least-developed country**; it is keen to clinch the **CEPA within a year**.

➤ India Bangladesh Trade Relations:

- In 2021-22, Bangladesh has emerged as the **largest trade partner for India** in South Asia and the **fourth largest destination** for Indian exports worldwide.
- **Exports to Bangladesh** grew more than 66% from USD 9.69 billion in FY 2020-21 to USD 16.15 billion in FY 2021-22.
- Despite **Covid-19 related disruptions**, bilateral trade grew 44% from USD 10.78 billion in 2020-21 to USD 18.13 billion in 2021-22.
- **India's Exports to Bangladesh:**
 - Raw cotton, non-retail pure cotton yarn, and electricity
- **India's Imports from Bangladesh:**
 - Pure vegetable oils, non-knit men's suits, and textile scraps.

What are some Issues which Both Nations should Resolve?

- There should be efforts to **resolve pending issues concerning sharing of waters**, resolving **continental shelf issues** in the Bay of Bengal, bringing down **border incidents to zero**, and managing the **media**.

- PM of Bangladesh held out the hope that the two countries will resolve the issue of sharing the waters of the **Teesta River** – an agreement on the matter has been pending since 2011.

- Bangladesh has already raised concerns over roll out of the **National Register of Citizens (NRC)** in Assam, an exercise carried out to **identify genuine Indian citizens living in Assam and weed out illegal Bangladeshis**.
- Currently, Bangladesh is an active partner of the **Belt and Road Initiative (BRI)** that Delhi has not signed up to.
- In the security sector, **Bangladesh is also a major recipient of Chinese military inventory**, including submarines.

Uyghur Rights Abuse

Why in News?

Recently, according to a report by **United Nations**, China is conducting serious human rights violations against **Uyghurs** that may amount to crimes against humanity.



What are the Key Highlights of the Report?

➤ Persecution of Uyghurs:

- The report accuses China of sweeping a million or more people from minority groups into **detention camps where many have said they were tortured, sexually assaulted, and forced to abandon their language and religion**.
- **Ruthless campaign:**
 - There is a ruthless campaign against extremism in the far western province of **Xinjiang** that also included draconian birth control policies and all-encompassing restrictions on people's movement.

Note:

- **Set-up Independent International Body:**
 - Human rights groups renewed calls for the UN Human Rights Council, to **set up an independent international body to investigate the allegations.**

Who are Uyghurs?

- **About:**
 - The Uyghurs are a predominantly **Muslim minority Turkic ethnic group**, whose origins can be traced to **Central and East Asia.**
 - The Uyghurs speak their own language, similar to Turkish, and see themselves as culturally and ethnically close to Central Asian nations.
 - The Uyghurs are considered to be one of the **55 officially recognized ethnic minority communities in China.**
 - However, China recognizes the community only as a regional minority and **rejects that they are an indigenous group.**
 - Currently, the **largest population of the Uyghur ethnic community** lives in the **Xinjiang region** of China.
 - A significant population of Uyghurs also lives in the neighbouring Central Asian countries such as **Uzbekistan, Kyrgyzstan and Kazakhstan.**
 - **Xinjiang** is technically an autonomous region within China — its largest region, rich in minerals, and **sharing borders with eight countries**, including India, Pakistan, Russia and Afghanistan.

China Objects Indo-US Military Drill Near LAC

Why in News?

Recently, China opposed the war games between India and the US near the disputed Sino-India border, saying it's an **interference in the bilateral boundary issue.**

- While the drill is yet to be officially confirmed, it is anticipated that the two countries will participate in the 18th edition of the **"Yudh Abhyas"** at Auli in Uttarakhand in October 2022, some **100km from the Line of Actual Control (LAC).**

Why Does China Oppose the Military Drill near LAC?

- China says both countries have agreed that **no military drill will be held near the LAC**, the de facto border between the two countries.
- China cited two agreements signed by India and China in 1993 and 1996, saying the **exercise violates both.**
 - **1993 Agreement** on the Maintenance of Peace and Tranquillity along the Line of Actual Control in the India-China Border Areas.
 - **1996 Agreement** on Confidence-Building Measures in the Military Field Along the Line of Actual Control in the India-China Border Areas.
- A key element of both the 1993 and 1996 agreements is that the two sides would keep their forces in the areas along the LAC to a minimum level. However, **the agreements do not define** what comprises the minimum level.
 - The 1993 and 1996 agreements also mandate that pending a final solution to the boundary question, **the two sides shall strictly respect the LAC.**
- Use of firearms on the LAC is strictly regulated as per the **agreements of 1993, 1996 and 2005.**

What is Yudh Abhyas?

- It is the largest **running joint military training and defence cooperation endeavor between India and the US.**
- The exercise was **started in 2004 under the US Army Pacific Partnership Program.** The exercise is hosted alternately between both countries.
- The exercise **aims at enhancing understanding, cooperation and interoperability between two Armies.**
 - This will help them in undertaking joint operations at battalion level in mountainous terrain with cold climatic conditions under the ambit of the United Nations.

What is the Point of Contention between two countries?

- The major disagreements are in the **western sector.**
- After the 1962 War, the Chinese claimed **they had withdrawn to 20 km behind the LAC in November 1959.**

Note:

- In the eastern sector the border coincides in the main with the so-called **McMahon Line**, and in the western and middle sectors **it coincides in the main with the traditional customary line** which has consistently been pointed out by China.
- During the **Doklam crisis in 2017**, China **urged India to abide by the “1959 LAC”**.
- India rejected **the concept of LAC in both 1959 and 1962**.
- India’s objection was that the Chinese line **“was a disconnected series of points on a map that could be joined up in many ways; the line should omit gains from aggression in 1962 and therefore should be based on the actual position on September 8, 1962 before the Chinese attack, and the vagueness of the Chinese definition left it open for China to continue its creeping attempt to change facts on the ground by military force.**

What are the Recent Issues and Developments between India and China?

- **Issues:**
 - **May 2020:** Chinese and Indian forces clashed at **Nathu La, Sikkim (India)**.
 - **June 2020:** Indian and Chinese armies were engaged in the **standoff in Pangong Tso, Galwan Valley, Demchok and Daulat Beg Oldie** in eastern Ladakh.
 - **June 2020:** India banned **59 apps originating from China**.
 - **November 2020:** India blocked 43 new mobile apps, **mostly Chinese**.
 - The ban has been enforced under **Section 69A of the Information Technology Act, 2000**.
- **Developments:**
 - **February 2021:** India and China decided to finally reach an **agreement on disengagement at Pangong Lake**.
 - **September 2022:** Recently, Indian and Chinese armies have begun to **disengage from Patrolling Point-15 in the Gogra-Hot Springs area of Eastern Ladakh**, marking a step forward to end the standoff ongoing since May 2020.

What is the Line of Actual Control?

- The LAC is the **demarcation that separates** Indian-controlled territory from Chinese-controlled territory.
- India considers the **LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km**.
- It is divided **into three sectors**,
 - **The eastern sector** which spans Arunachal Pradesh and Sikkim.
 - **The middle sector** in Uttarakhand and Himachal Pradesh
 - **The western sector** in Ladakh.



How is the LAC different from the Line of Control with Pakistan?

- The LoC emerged from the **1948 ceasefire line negotiated by the UN** after the Kashmir War.
- It was designated as the LoC in 1972, following the **Shimla Agreement between the two countries**.
- It is delineated on a map signed by Director General of Military Operations (DGMOs) of both armies and has the international sanctity of a legal agreement.
- The LAC, in contrast, **is only a concept – it is not agreed upon by the two countries**, neither delineated on a map or demarcated on the ground.

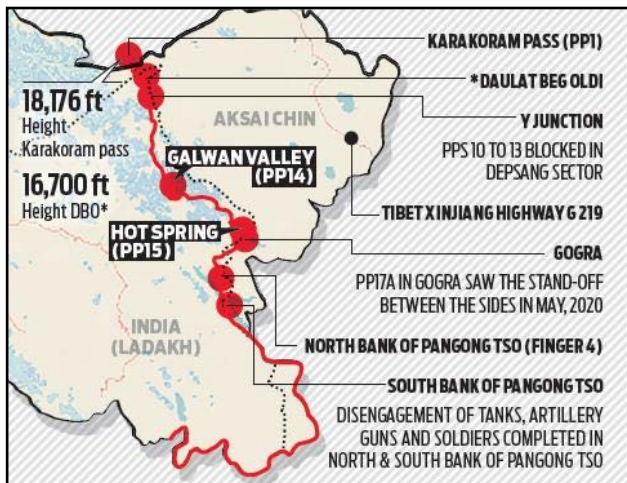
Indo-China Disengagement at Hot Springs & Gogra Post

Why in News?

- Recently, the **Indian and Chinese troops** have begun **disengaging at Patrolling Pillar-15 (PP-15) in the Gogra-Hot Spring region of Eastern Ladakh**.
- Forces of the **two countries have been locked in a confrontational position** in the area since April 2020.

Note:

- The move comes ahead of **Shanghai Cooperation Organisation (SCO)** summit in Uzbekistan.



Why are the Key Highlights about the Current Disengagement?

- Indian and Chinese armies have begun to **disengage from Patrolling Point-15 in the Gogra-Hotsprings area of Eastern Ladakh**, marking a step forward to **end the standoff ongoing since May 2020**.
 - **PP-15 is one of the 65 patrolling points** in Ladakh along the **Line of Actual Control (LAC)**.
- The disengagement has begun in a **coordinated and planned way**, which is conducive to peace and tranquility in the border areas.
- As per the understanding reached earlier on disengagement, **a buffer zone is to be created at the friction points once troops are withdrawn by both sides and new patrolling norms are to be worked out** after complete disengagement and de-escalation.
- The consensus about the disengagement was reached in the **16th round of India China Corps Commander Level Meeting**.
 - The 16th round of talks was held on July 17, 2022, at the **Chushul border personnel meeting point on the Indian side**.
 - Since the stand-off began in May 2020, the two sides have so far held 16 rounds of talks with disengagement undertaken from both sides of Pangong Tso.
- With disengagement at PP-15, forces of the **two countries have disengaged at all friction points** in the region which included the North and South banks of the **Pangong Tso, PP-14, PP-15 and PP-17A**.

- The **last disengagement** between the forces of the two countries had been achieved at PP-17 A in August 2021 following the 12th Corp Commander Level meeting.
- The friction points that remain now are Demchok and Depsang, which China has constantly refused to accept, maintaining that they are not a part of the current stand-off.

What We Need to Know about the Hot Springs and Gogra Post?

- **Location:**
 - **Hot Springs is just north of the Chang Chenmo river** and **Gogra Post is east of the point** where the river takes a hairpin bend coming southeast from Galwan Valley and turning southwest.
 - The area is north of the **Karakoram Range of mountains**, which lies north of the Pangong Tso lake, and south east of Galwan Valley.
- **Importance:**
 - The area lies close to **Kongka Pass**, one of the main passes, which, according to China, marks the boundary between India and China.
 - India's claim of the international boundary lies significantly east, as it includes the entire **Aksai Chin** area as well.
 - Hot Springs and Gogra Post are **close to the boundary between two of the most historically disturbed provinces (Xinjiang and Tibet) of China**.

US - Indonesia Military Drill

Why in News?

Recently, the **United States and Indonesian militaries** had conducted annual **joint combat exercises** on Indonesia's Sumatra Island.

- **For the first time**, participants from other partner nations have also joined amid growing maritime activity by China in the **Indo-Pacific region**.

What do we need to know about the Joint Military Drill?

- More than 5,000 soldiers from the **U.S., Indonesia, Australia, Japan and Singapore** participated in this 2022's exercises.

Note:

- The exercises were designed to **strengthen interoperability, capability, trust and cooperation** in support of a **free and open Indo-Pacific**.
- The exercises lasted till 14th August 2022, encompassing army, navy, air force and marine drills.



Which are India's Exercises with US & Indonesia?

- **US:**
 - **Exercise Yudh Abhyas:** It is the **largest running joint military training and defence cooperation** endeavor between India and the US.
 - **Exercise Tiger Triumph (Humanitarian Assistance and Disaster Relief exercise):** It aims to develop **interoperability for conducting HADR operations**.
 - **Exercise Vajra Prahar (Special Forces' Exercise):** The joint exercise by the **Special Forces** of both the countries is conducted alternatively between India and the United States.
- **Indonesia:**
 - **Exercise Samudra Shakti (Maritime):** In pursuance of **India's Act East Policy**, Exercise 'Samudra Shakti' was conceived in 2018 as a bilateral IN-IDN exercise.
 - The exercise aims to strengthen the **bilateral relationship, and enhance mutual understanding and interoperability** in maritime operations between the **two navies**.
 - **IND-INDO CORPAT (Maritime Exercise):** **India-Indonesia Coordinated Patrol** build up understanding and interoperability **between navies** and facilitate institution of measures to prevent and suppress **Illegal Unreported Unregulated (IUU) fishing**, drug trafficking, maritime terrorism, armed robbery and piracy.

Indo-Pacific Economic Framework

Why in News?

Recently, the Minister of Commerce & Industry addressed the **Indo-Pacific Economic Framework (IPEF) Ministerial meeting** in the US, where India decided to stay away from the Fair & resilient trade Pillar.

- India agreed to **three out of four pillars**, which are **Supply Chains, Tax & Anti-Corruption and Clean Energy**.

What is IPEF?

- It is a **US-led initiative** that aims to **strengthen economic partnership among participating countries** to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the **Indo-Pacific region**.
- The IPEF was launched in 2021 with a **dozen initial partners** who together represent **40% of the world GDP**.
- The IPEF is **not a Free Trade Agreement (FTA)** but allows members to **negotiate the parts they want to**. The negotiations will be along **four main "pillars"**.
 - **Supply-chain resilience**
 - Clean energy, decarbonisation & infrastructure
 - Taxation & anti-corruption
 - Fair & resilient trade.
- Currently, **India and 13 countries located in the Pacific Ocean** are its members,
 - Australia, Brunei, Fiji, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, United States, and Vietnam.

What is India's position on the IPEF?

- While some countries had expressed interest in joining negotiations, India **did not declare a definitive position** for some time because it will be watching **what benefits member countries will derive and whether any conditionalities on aspects like environment** may discriminate against developing countries.
- Some areas proposed in the IPEF **do not appear to serve India's interests**.
 - For example, the IPEF talks about digital governance but the IPEF formulation contains issues that **directly conflict with India's stated position**.

Note:

- India is in the **process of firming up its own digital framework and laws**, particularly regarding privacy and data, and **it would wait for more information**.
 - In August 2022, the Indian government withdrew the Personal Data Protection Bill from Parliament, saying it would consider **“comprehensive legal framework”** to regulate the overall Internet ecosystem, cybersecurity, etc.
- The **US has earlier expressed concerns** about the possibility of the **Indian side demanding data localisation or the storage** and processing of Indian users’ data in servers located in India and not the US, even in the case of data of US-based companies.
 - A US report expressed that India’s policy will serve as significant barriers to digital trade and act as market access barriers, especially for smaller firms.

How is IPEF Different from Other Trade Deals?

- The IPEF is **not exactly a trade pact** and the provision of multiple pillars does entail **an option for participants to choose what they want** to be a part of.
- It’s not a **take-it-or-leave-it arrangement**, like most multilateral trade deals are.
- Since the IPEF is not a regular trade pact, the members so far are **not obligated by all the four pillars despite being signatories**.
- So, while **staying off the trade part of the arrangement**, **India has joined** the other three pillars of the multilateral arrangement – supply chains, tax and anti-corruption and clean energy.

What is India’s Vision for the Indo-Pacific Region?

- India’s trade in this region is growing rapidly, with overseas investments being directed towards the East, e.g., the **Comprehensive Economic Partnership Agreements** with Japan, South Korea, and Singapore, and the Free Trade Agreements with **ASEAN (Association of Southeast Asian Nations)** and Thailand.
- India has been active in championing a Free and Open Indo-Pacific. The US, Australia, and the members of the ASEAN have all expressed a common view that India plays a greater role in the region.
- India, along with its **Quad partners**, is improving its game in the Indo-Pacific.

- India’s view is to work with other like-minded countries in the Indo-Pacific region to cooperatively manage a rules-based multipolar regional order and prevent any single power from dominating the region or its waterways.

Tenth Non-Proliferation Treaty Review Conference

Why in News?

Recently, the **Non-Proliferation Treaty Review Conference** which was held in New York ended without adopting a substantive outcome due to Russia’s objection.

What is the Nuclear Proliferation Treaty?

- **About:**
 - The NPT is an **international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology**, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament.
 - The treaty was **signed in 1968 and entered into force in 1970**. Presently, it has **191 member states**.
 - **India is not a member**.
 - It requires **countries to give up any present or future plans to build nuclear weapons** in return for access to peaceful uses of nuclear energy.
 - It represents the **only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States**.
 - Nuclear-weapon states parties under the NPT are defined as **those that manufactured and exploded a nuclear weapon or other nuclear explosive devices before 1st January, 1967**.
- **India’s Stand:**
 - **India** is one of the only five countries that **either did not sign the NPT or signed but withdrew later**, thus becoming part of a list that includes Pakistan, Israel, North Korea, and South Sudan.
 - India always considered the **NPT as discriminatory and had refused to sign it**.

Note:

- India has **opposed the international treaties** aimed at non-proliferation since they were **selectively applicable to the non-nuclear powers and legitimised the monopoly of the five nuclear weapons powers.**

What are the Concerns Arising Out of Russia's Disagreement?

- The **occupation of the Zaporizhzhia nuclear plant** in southeastern Ukraine as well as the **takeover of the Chernobyl nuclear plant**, scene of the world's worst nuclear disaster in 1986, **renewed global fears of another nuclear emergency.**
- The **threat of nuclear weapons use today is higher than at any time** since the heights of the Cold War and the deteriorated international security environment.
- This NPT conference represents a **missed opportunity to strengthen the treaty and global security by agreeing to a specific action plan with benchmarks and timeframes** to effectively address the growing dangers of nuclear arms racing and nuclear weapons use.

What are the Other Treaties and Agreements related to Nuclear Weapons?

- The Treaty Banning Nuclear Weapon Tests in the Atmosphere, In Outer Space and Under Water, also known as the **Partial Test Ban Treaty (PTBT).**
- **Comprehensive Nuclear-Test-Ban Treaty (CTBT):** India has **not signed the CTBT** as India is a **strong advocate for a time-bound disarmament commitment from nuclear weapon states (NWS)** and may use the lack of a commitment as a reason to refrain from signing the CTBT.
- **The Treaty on the Prohibition of nuclear weapons (TPNW):** It entered into force on 22 January 2021 and **India is not a member of this treaty.**
- **Nuclear Suppliers Group(NSG):** India is not a member of the NSG.
- **The Missile Technology Control Regime.**
- **Hague Code of Conduct against Ballistic Missile Proliferation.**
- **The Wassenaar Arrangement.**

Japan & India to Boost Defence Ties

Why in News?

Recently, India & Japan hold the 2+2 ministerial meeting in Tokyo to enhance security and defence cooperation.



What are the Key Highlights of this Meeting?

- **Enhanced Defence Cooperation:** Both countries are examining all options necessary for national defence including counterstrike capabilities, and will **increase their defence budget substantially** to strengthen their capabilities.
 - As there is a need to tackle increased security threats mostly from neighbouring China.
- **Enhancing Maritime Cooperation:** There were extensive discussions on ways to enhance maritime cooperation including **maritime domain awareness** that includes **India's inclusive vision of Security and Growth for All in the Region (SAGAR).**
- **Global cooperation:** Both countries acknowledged that global cooperation is required more than ever to address security challenges.
 - Further, here is consensus on both sides that a **strong India-Japan relationship** is very important for a **free, open, rule-based and inclusive Indo-Pacific** based upon sovereignty and territorial integrity of nations.

Note:



What is 2+2 Dialogue?

- 2+2 Ministerial is the **highest-level institutional mechanism** between the two countries.
- It is a format of dialogue where the **defence/foreign ministers or secretaries** meet with their counterparts from another country.
- India has 2+2 dialogues with four key strategic partners: **the US, Australia, Japan, and Russia.**

How has India's Relations with Japan been?➤ **Defence Exercises:**

- India and Japan's defence forces organize a series of bilateral exercises namely, **JIMEX (naval), SHINYUU Maitri (Air Force), and Dharma Guardian (Army).**
- The participation of Japan for the first time in the **multilateral exercise MILAN** and operationalisation of the **Reciprocal Provision of Supply and Services Agreement** in March, 2022 are milestones in the progress of defence cooperation.
- Both countries also participate in the **Malabar exercise (Naval Exercise)** with the USA and Australia.

➤ **Multilateral Groupings:**

- Both India and Japan are members of **Quad, G20 and G-4.**
- They are also member countries of the **International Thermonuclear Experimental Reactor (ITER).**

➤ **Health-Care:**

- In view of the similarities and synergies between the goals and objectives of **India's AYUSHMAN Bharat Programme** and **Japan's AHWIN**, both sides had been consulting with each other to identify projects to build the narrative of AHWIN for AYUSHMAN Bharat.

➤ **Investment and ODA:**

- India has been the largest recipient of the Japanese **Official Development Assistance (ODA)** Loan for the past decades.
 - **Delhi Metro** is one of the most successful examples of Japanese cooperation through the utilization of ODA.
- India's **Western Dedicated Freight Corridor (DFC)** project is funded by a soft loan provided by Japan International Cooperation Agency.
- Japan and India had committed to build a **High-Speed Railways in India.**

- **India Japan Nuclear Deal 2016** will help India build the six nuclear reactors in southern India, increasing nuclear energy capacity ten-fold by 2032.

➤ **Economic Relations:**

- Japan's bilateral trade with India totaled USD 20.57 billion during FY 2021-22.
 - Japan's exports to India were **2.35% of India's total imports** and India's exports to Japan were **1.46% of India's total exports.** This underlines that there remains a big potential.
- India was the 18th largest trading partner for Japan, and Japan was the 12th largest trading partner for India in 2020.

➤ **Developments during 14th India-Japan Annual Summit, 2022:**

- **Sustainable Development Initiative for the North Eastern Region of India:**
 - It has been launched with an eye on India's infrastructure development in the Northeast, and includes both ongoing projects and possible future cooperation in connectivity, healthcare, new and renewable energy, as well as an initiative for **strengthening bamboo value chain.**
- **India-Japan Digital Partnership:**
 - **On cyber security,** the leaders discussed the "India-Japan Digital Partnership" with a view to enhancing the digital economy through the promotion of joint projects in the area of **IoT (Internet of Things), AI (Artificial Intelligence) and other emerging technologies.**
 - Japan is looking forward to attracting more highly skilled Indian IT professionals to contribute to the Japanese ICT sector.
- **Clean Energy Partnership:**
 - It was launched for cooperation in areas such as **electric vehicles, storage systems including batteries, electric vehicle charging infrastructure,** development of solar energy; hydrogen; ammonia; etc.
 - The objective is to **encourage manufacturing in India, creation of resilient and trustworthy supply chains** in these areas as well as foster collaboration in R&D (Research and Development).

Note:

India to host G20 Summit in 2023

Why in the News?

Recently, the Ministry of External Affairs (MEA) announced that India is hosting the **G-20 (Group of 20)** leaders' summit in New Delhi next year 2023.

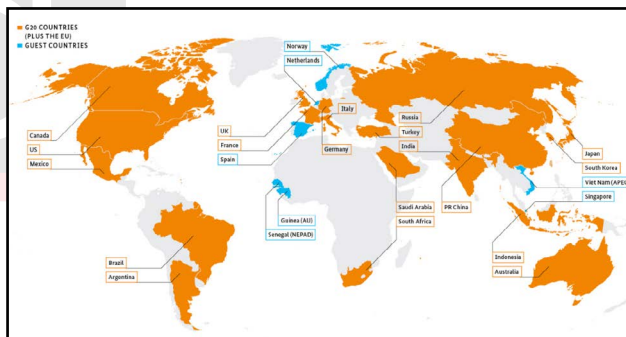
- The 17th G20 Heads of State and Government Summit will happen in November 2022 in Indonesia, after which **India will assume the presidency of G20 from December 2022.**
- India is assuming the Presidency of the G20 for one year.

What are the Key Points?

- **Guest Countries:**
 - India, as G20 Presidency, will be inviting **Bangladesh, Egypt, Mauritius, Netherlands, Nigeria, Oman, Singapore, Spain and UAE as Guest countries**
- **Troika:**
 - During the Presidency, **India, Indonesia and Brazil would form the troika.** This would be the first time when the **troika would consist of three developing countries** and emerging economies, providing them a greater voice.
 - Troika refers to the **top grouping within the G20 that consists of the current, previous and the upcoming presidencies** (Indonesia, India and Brazil).
- **Key Priorities:**
 - Inclusive, Equitable and Sustainable Growth,
 - LiFE (Lifestyle For Environment),
 - Women's Empowerment;
 - Digital public infrastructure and tech-enabled development in areas ranging from health, agriculture and education to commerce,
 - Skill-mapping, culture and tourism; climate financing; circular economy; global food security; energy security; green hydrogen; disaster risk reduction and resilience;
 - Developmental cooperation; fight against economic crime; and multilateral reforms.

What is the G20?

- **About:**
 - The G20 was formed in **1999 in the backdrop of the financial crisis of the late 1990s** that hit **East Asia and Southeast Asia** in particular.
 - It aims to secure global financial stability by involving middle-income countries.
 - Together, the G20 countries include **60 % of the world's population, 80 % of global GDP, and 75 % of global trade.**
- **Members:**
 - Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the EU.
 - **Spain is invited as a permanent guest.**



- **Presidency:**
 - The presidency of the G20 **rotates every year among members**, and the country holding the presidency, together with the previous and next presidency-holder, forms the 'Troika' to **ensure continuity of the G20 agenda.**
 - **Italy, Indonesia, and India** are the Troika countries right now and Indonesia holds the current Presidency.
- **Mandate:**
 - The G20 has no permanent secretariat. The agenda and work are coordinated by **representatives of the G20 countries, known as 'Sherpas'**, who work together with the finance ministers and governors of the central banks.

Note:

- The primary mandate of the grouping is for International Economic cooperation with particular emphasis to **prevent future financial crises across the world.**
- It plays a significant role in **shaping the global economic agenda.**
- From 1999-2008 the **forum exalted from a grouping of Central bank governors and finance ministers** to Heads of states.

G20 Education Ministers' Meeting

Why in News?

Recently, the Minister of Education addressed the **G-20 Education Ministers' Meeting** in Bali, Indonesia.

- **Theme:** Recovery, Re-imagine and Rebuild Stronger.
- The G20 presidency is scheduled to move from Indonesia to India in December 2022.

What are the Key Highlights?

- Emphasized on the **importance of sharing mutual experiences** & working together to create a new world in which education remains the nodal point for addressing common challenges.
- The **National Education Policy 2020**, based on the foundational principles of access, equity, quality, affordability and accountability is **India's guiding light for promoting lifelong learning opportunities** and achieving the shared vision of G20.
- Highlighted **India's rapid strides towards building a more resilient and inclusive education and skilling ecosystem** and realising the creative potential of each learner through the implementation of NEP 2020.
- India is giving special emphasis on **formalizing early childhood care & education**, supporting differently-abled children, boosting digital and multi-modal learning, flexible entry-exit pathways, integrating education with skills, which are keys to improve learning outcomes.

What is G20?

➤ About:

- It is a group of 19 countries and the **European Union (EU)**, founded in 1999, with representatives of the **International Monetary Fund and the World Bank.**
 - Its members are Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States and the EU.
 - Nigeria was meant to be the "20th" member and was dropped at the last minute due to political troubles at the time.
- The membership comprises a mix of the world's largest advanced and emerging economies, representing about two-thirds of the world's population.
- The G20 holds a strategic role in securing **future global economic growth and prosperity.**
- Together, the G20 members represent more **than 80% of world GDP, 75% of international trade and 60% of the world population.**

➤ Functioning of G20:

- The G-20 has **no fixed headquarters**, and the secretariat moves by rotation between the countries hosting or assuming Presidency of the grouping each year.
- The members are divided into five groups (**India is in Group 2**, along with Russia, South Africa and Turkey).
- The G-20 agenda that still depends heavily on the guidance of Finance Ministers and central Governors is finalised by a unique system of '**Sherpas**', who are special envoys of G-20 leaders.
- Another feature of the G-20 is '**Troika**' meetings, comprising the countries presiding over the G-20 in the past year, present year, and next year. At present, the Troika is made up of Italy, Indonesia and India.

How has the G20 Evolved over the years?

- The **Global Financial Crisis (2007-08)** cemented G20's reputation as the premier crisis management and coordination body.

Note:

- The US, which held the G20 Presidency in 2008, elevated the meeting of the Finance Ministers and Central Bank Governors to Heads of State, resulting in the first G20 Summit.
- The Summits in Washington DC, London, and Pittsburgh set the scene for some of the most durable global reforms:
 - **Blacklisting states** in an effort to tackle tax evasion and avoidance, provisioning stricter controls on hedge funds and rating agencies, making the Financial Stability Board an effective supervisory and watchdog body for the global financial system, proposing stricter regulations for too-big-to fail banks, refraining members from imposing new barriers to trade etc.
- By the time Covid-19 struck, the G20 had wandered off from its original mission and G20 lost its focus.
 - G20 reinvented itself by widening its agenda to include issues such as **climate change, jobs and social security issues, inequality, agriculture, migration, corruption, terror financing, drug trafficking, food security** and nutrition, disruptive technologies, and meeting the sustainable development goals.
- In recent times, G20 members have made all the right commitments after the pandemic, but there is little to show in action.
 - At the **Riyadh Summit in October 2020**, they prioritised four things: fighting the pandemic, safeguarding the global economy, addressing international trade disruptions, and enhancing global cooperation.
 - The **Italian Presidency in 2021** had focused on three broad, interconnected pillars of action — People, Planet, Prosperity — vowing to take the lead in ensuring a swift international response to the pandemic.

India Mexico Relations

Why in News?

On the Occasion of Mexico National Day (16th September), India extended its greetings and felicitations to all Mexico Nationals and commemorated the **72 years of the establishment of diplomatic Relations**.



How is India-Mexico Relations?

- **Historical Ties:**
 - Being colonies in the past, India and Mexico have **European connections of the colonial era**.
 - Mexico was the **first Latin American country** to recognise India after Independence and establish **diplomatic relations with India in 1950**.
 - Mexican wheat varieties **used in Indo-Mexican hybrids were** the backbone of India's **Green Revolution in the 1960s**.
 - In the **Cold War years**, Mexico and India had worked together closely as **members of the United Nations (UN)**, both actively championing the interests of developing countries such as in the Uruguay Round of Trade Negotiations (**under the World Trade Organisation**).
 - Both countries are members of **G-20**.
- **Political and Bilateral Cooperation:**
 - Both countries established a '**Privileged Partnership in 2007**'.
 - In 2015, both countries agreed to work towards achieving a '**Strategic Partnership**'.
 - The two countries have several bilateral agreements and MoUs, including for Investment Promotion and Protection, **Extradition**, Administrative Assistance in Customs Matters, Space Cooperation, etc.
 - India gives 20 scholarships to Mexico under the **Indian Technical and Economic Cooperation (ITEC) programme** and Mexican diplomats are also given training at **Forest Survey of India (FSI)**.

Note:



➤ Economic and Commercial Relations:

- India is the **10th largest trading partner of Mexico**, and the trade balance has remained in favor of India for eight years.
- Mexico is currently **India's largest trading partner in Latin America**.
- In 2021, exports to Mexico from India reached USD 5.931 billion and imports from Mexico were at USD 4.17 billion, taking the total trade to USD 10.11 billion.
 - **India's Exports:** Vehicles and auto parts, organic chemicals, electrical machinery and electronic equipment, aluminium products, readymade garments, iron and steel products and gems and jewellery.
 - **India's Imports:** Crude oil, mineral fuel, fertilizers, etc. Crude oil occupies 75% of the export basket from Mexico.
- India's **exports of pharmaceutical products remained steady in 2020** and increased by more than 80%.

➤ Security:

- Both countries share a **common concern** over growing traditional and non-traditional security challenges, particularly the rise of **global terrorism**.

➤ Cultural Ties:

- The **Gurudev Tagore Indian Cultural Centre** has been functioning in Mexico since October 2010, teaching Yoga, classical dances, music, etc.
- An agreement on cultural cooperation has been in existence since 1975 and cooperation activities are carried out through four-yearly '**Programmes of Cultural Cooperation**'.

➤ Indian Community:

- The Indian community in Mexico is estimated to be more than 7,000, comprising mostly software engineers of Indian IT companies, academics/professors, and private businessmen.
- Tourism between the two countries is steadily increasing and Mexicans have been extended the **online e-Tourist Visa facility**.
- Indian nationals holding ordinary passports but having a valid visa for the USA, the UK, Canada, Schengen area or Japan, and holders of permanent

residence in the same countries or Member States of **Pacific Alliance viz. Colombia, Chile and Peru do not need a visa for short tourism or business visits to Mexico**.

➤ Differences:

- Mexico and India have had different viewpoints on the issue of **nuclear non-proliferation**. However, during the Indian Prime Minister's 2016 visit, Mexico pledged support for India's bid to be part of the **Nuclear Suppliers Group (NSG)**.
- Both countries have differences on the issue of **United Nations Security Council (UNSC) reforms**.
 - Mexico has been a member of the **United for Consensus (UfC) group/Coffee Club** that, unlike India and the other **Group of Four (G-4)** members (Japan, Germany and Brazil), opposes the expansion of permanent membership in the UNSC.

What are Recent Developments?

- In June 2022, India and Mexico signed an agreement for **cooperation in space**, focusing on areas **ranging from trade and investment to health and pharmaceuticals**.
- The specific cooperation agreement on crop monitoring, drought assessment and capacity building were signed on behalf of the **Indian Space Research Organisation (ISRO)**.
 - ISRO and AEM (Mexican Space Agency) last signed a memorandum of understanding on **space cooperation for peaceful purposes in October 2014**.

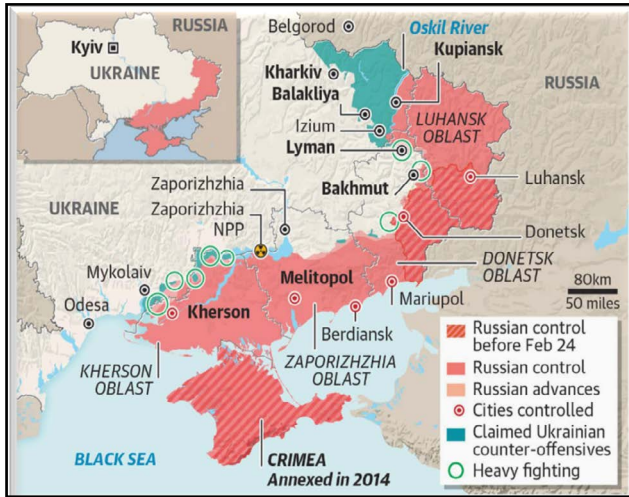
Ukraine's Counter-Offensive

Why in News?

Recently, **Ukraine has launched a lightning counter-offensive** in the country's northeast that saw **surprising territorial gains**.

- Its forces have **pushed back Russian soldiers from most of Kharkiv Oblast**, retaking **thousands of square kilometres of territory**.
- This is the **first time that Ukrainian troops have pushed back the Russians** through combat since the **Russia Ukraine conflict** began.

Note:



How did Ukraine Push Back Russia in Kharkiv Oblast?

➤ Halt of Russian Forces:

- After capturing Lysychansk in July 2022 and taking the whole of Luhansk province coming under its control, **Russia's battlefield combat came to a halt.**
 - Russia was controlling **almost 25% of Ukraine** at this time.
- The halt of Russian forces **opened a window opportunity for Ukraine** to move ahead with its counter-offensive plans.

➤ Help from US:

- **Advanced mid-range rocket systems** such as **High Mobility Artillery Rocket Systems (HIMARS).**
- **Military assistance worth more than USD 14.5 billion.**
- **U.S. intelligence agencies** also provided information to Ukraine on the weak links of the Russian defence.

➤ Sanctions on Russia:

- Russia was being **faced with sanctions** which made it difficult to make sure their supply was intact and they had to turn to Iran and North Korea.

➤ Ukraine's Attacks:

- Ukraine started attacks in **southern Ukraine** in **Kherson** and **sabotage hits in Crimea**, which Russia annexed in 2014.

- Russia, faced with the Ukrainian attacks in the south, **bolstered the defences of Kherson and Zaporizhzhia.**
 - Ukraine broke into the **relatively weaker defence lines** in the northeast and **successfully pushed the Russians back.**

What do we need to know about the Russia Ukraine Conflict?

➤ History:

- In 2014, Russia had annexed **Crimea from Ukraine** following a hastily called referendum, a move that **sparked fighting between Russia-backed separatists and government forces** in eastern Ukraine.
- Ukraine urged the **North Atlantic Treaty Organization (NATO)** to speed up the country's membership in the alliance.
- Russia declared such a move a **"red line"**, and worried about the **consequences of the US-led military alliances** expanding right up to its doorstep.
- **This has led to the present war between Russia and Ukraine.**

➤ Invasion of Ukraine:

- The conflict is now the **largest attack by one state on another in Europe** since the **Second World War**, and the first since the **Balkan conflict in the 1990s.**
- With the invasion of Ukraine, agreements like the **Minsk Protocols of 2014**, and the **Russia-NATO Act of 1997** stand all but voided.

➤ Stand of Other Countries:

○ Global:

- The **G7 nations** strongly condemned Russia's invasion of Ukraine.
 - Sanctions have been imposed on Russia by the **U.S., the European Union (EU), the UK, Australia, Canada and Japan.**
- China **rejected calling Russia's moves on Ukraine an "invasion"** and urged all sides to exercise restraint.

○ India's Stand:

- India **did not join the Western powers' condemnation** of Russia's intervention in Crimea and kept a **low profile on the issue.**
 - However, in August 2022, **India voted against Russia** during a **"procedural vote"** at the **United Nations Security Council** on Ukraine.

Note:

Issue of Tamilians in Sri Lanka

Why in News?

Recently, India has expressed concern over the **lack of any measurable progress** by Sri Lanka on its **commitment towards reaching a political solution** on the Tamil issue.

- India, in its statement at the **51st session of the United Nations Human Rights Council** in Geneva said it has “always believed in the responsibility of **States for promotion and protection of human rights** and constructive international dialogue and cooperation” guided by the **U.N. Charter**.

What concerns were Raised by India?

- The current crisis in Sri Lanka has **demonstrated the limitations of a debt-driven economy** and the impact it has on the standard of living.
- It is in the best interests of Sri Lanka to build the capacity of its citizens and work towards their empowerment.
- Over 13 years since the end of Sri Lanka’s civil war in 2009, when tens of thousands of civilians were killed and disappeared, **survivors continue demanding justice and accountability** for war-time crimes.
- In the post-war years, Sri Lanka’s human rights defenders have **frequently flagged concerns over persisting militarisation**, especially in the Tamil-majority north and east; repression, and the shrinking space for dissent.

What is the Tamil issue and its History?

➤ Background:

- Sri Lanka is 74.9 % Sinhalese and 11.2 % Sri Lankan Tamil. Within these two groups, **Sinhalese tend to be Buddhist and Tamils tend to be Hindu**, displaying significant **linguistic and religious** divisions.
- It is believed that the Tamils arrived in Sri Lanka both as **invaders and traders** from **India’s Chola Kingdom**.
- Some origin stories suggest that the **Sinhalese and Tamil communities have experienced tension** from the very beginning—not out of cultural incompatibility, but **rather out of power disputes**.

➤ Pre-Civil War:

- During British Rule the pattern of Tamil favoritism **left Sinhalese people feeling isolated** and oppressed. Soon after **British occupiers left the island in 1948**, these patterns of Tamil dominance **changed dramatically**.
- After British independence, many Sinhalese gained power and went on to **gradually pass acts effectively disenfranchising their Tamil counterparts**, which led to the creation of **Liberation Tigers of Tamil Eelam (LTTE)** in 1976.
 - LTTE was an uncompromising group inspired by **Che Guevarra and his guerilla warfare tactics**.
- The **conflict then escalated into civil war in 1983**, leading to riots targeting Tamils in Colombo.
- The fighting lasted just under **three decades and ended in May 2009**, when the Sri Lankan government announced that **they killed the LTTE leader**.

➤ Post-Civil War:

- Although the Civil War ended in 2009, the current **situation in Sri Lanka has only partially improved**.
- A large portion of the **Tamil population remains displaced**. While there are fewer political and civil rights issues, **instances of torture and enforced disappearances persist** even in recent years.
- The government’s **Prevention of Terrorism Act (PTA) targets mostly Tamils**. In a more subtle sense, the **Sri Lankan government continues to disenfranchise the Tamil community**.
- Through the **process of “Sinhalization,”** for instance, Sinhalese culture has **slowly replaced that of the Tamil population**.
- Sinhalese monuments, road signs, street and village names, as well as **Buddhist places of worship became more common in predominantly Tamil areas**.
- These efforts have infringed upon, and **in some cases even erased**, the Tamil perspective on Sri Lankan history, as well as Tamil and Hindu elements of the country’s culture.

Note:



What are the Concerns for India?

- **Rehabilitation of Refugees:** A lot of Srilankan Tamils who evaded from Srilankan civil war (2009) are seeking refuge in Tamil Nadu. They are not returning in fear of being targeted again. It is a challenge for India to rehabilitate them.
- **Sentiments of Indian Tamils:** A number of protests and criticism is drawn at the end of the Indian Government for overlooking the plight of Srilankan Tamils to maintain good relationship with Srilanka.
- **Strategic interests vs Tamil question:** Often India has to trade off on the question of Tamilian minority rights over strategic issues to protect its economic interests

in its neighborhood and to counter Chinese influence in the Indian Ocean.

What are the other Issues in India-Sri Lanka Relations?

- **Killing of Fisherman:**
 - Killing of Indian fishermen by the Sri Lankan Navy is a lingering issue between these two nations.
 - In 2019 and 2020, a total of 284 **Indian fishermen were arrested** and a total of 53 Indian boats were confiscated by the Sri Lankan authorities.
- **East Coast Terminal project:**
 - In 2021 Sri Lanka canceled an MoU signed with India and Japan for the **East Coast Terminal project**.
- **Influence of China:**
 - China's rapidly growing economic footprint (and political clout as a corollary) in Sri Lanka is straining India-Sri Lanka relations.
 - China is already the largest investor in Sri Lanka, accounting for 23.6% of the total **Foreign Direct Investment (FDI)** during 2010-2019 as against 10.4% from India.
- **13th Amendment of the Sri Lankan Constitution:**
 - It envisages devolution of necessary powers to the provincial councils to address the just demand of the Tamil people for equality, justice, peace, and respect within a united Sri Lanka.



Note:

Economic Scenario

Highlights

- Push to Coarse Cereals
- Urban Employment Guarantee
- Fall in Price of Natural Rubber
- Windfall Tax
- Slide in Global Oil Prices
- Healthcare Sector in India
- Karnataka Iron Ore Mining
- India Became the World's Fifth-largest Economy
- India's Creative Economy
- Ban on Exports of Broken Rice
- US Start-up SETU
- India & Startup
- Review of Gas Pricing Formula
- First Disbursement under PLI Scheme
- Rise in Retail Inflation & Contract in Index of Industrial Production
- World Dairy Summit 2022
- Agricultural and Processed Food Exports

Push to Coarse Cereals

Why in News?

Recently, a meeting was organised by the **Department of Food and Public Distribution (DFPD)**, to discuss the procurement of the **Kharif produce for 2022-2023**.

- The government of India has considered pushing towards **coarse cereals** as **climate change** affects **wheat and paddy cultivation**.
- Procurement target for coarse cereals is **doubled from Kharif crop market**, more coarse grains likely to be seen in rations.

What are Coarse Cereals?

➤ About:

- Coarse cereals are traditionally **grown in resource poor agro-climatic regions** of the country.
 - Agro-climatic zone is a land unit in terms of major climates suitable for a certain range of crops and cultivars.
- Sorghum, pearl millet, maize, barley, finger millet and several small millets such as kodo millet, little millet, foxtail millet, proso millet and barnyard millet together called coarse cereals.
 - Sorghum, pearl millet, finger millet, maize and small millets (barnyard millet, proso millet, kodo millet and foxtail millet) **are also called nutri-cereals**.

➤ Significance:

- Coarse cereals are known for **nutria-rich content** and having characteristics like **drought tolerance, photo-insensitivity** and **resilient to climate change etc.**
 - These crops also offer a good potential in the **food processing industry** and as a **promising exportable commodity**.
 - Their **cultivation in drought prone areas** for providing food for human consumption, feed & fodder for animal and poultry, use as fuel and industrial uses are common.
 - Their nutritious value serves as an excellent tool to **combat malnutrition**.
 - It helps in **generating employment in low rainfall areas** where other alternative crops are limited and these crops are used as a contingent crop.
- #### ➤ Coarse Cereals Producing States:
- Karnataka, Rajasthan, Puducherry, Maharashtra, Madhya Pradesh, Uttar Pradesh etc.
- #### ➤ Uses of Coarse Cereals:
- **Fodder:**
 - The cultivation of **Millets** like sorghum and pearl millet in some Northern States like Haryana, Punjab and Western UP is primarily done for fodder purposes.

Note:

- **Industrial Products:**
 - **Sorghum:** Used in Malting, high fructose syrup, starch, Jaggery, bakery etc.
 - Pearl millet: Used in Brewing/malting, starch, bakery, poultry and animal feed.
 - **Maize:** Used in Brewing, starch, bakery, poultry and animal feed, bio-fuel.
- **Source of Feed:**
 - The demand for coarse cereals for **animals and poultry feed** is on the rise.
 - In India, feed requirements are met from **waste food grains** in general and **made especially from coarse cereals**.
 - Maize is the preferred carbohydrate source in poultry feed.

Why is the Government Shifting Focus on Coarse Cereals?

- **Climate Change:**
 - **Climate change** has affected the production of wheat and paddy in the country, indicating a **need to shift focus to coarse cereals**.
 - Cultivation of the wheat and paddy will not be enough to meet the country's food needs due to **erratic weather patterns**.
- **Monsoon:**
 - Erratic **monsoon** 2022 has increased the government's concern for the Kharif season yield.
 - The sowing of paddy and pulses was severely affected in most areas in 2022.
- **Sustainable Crop:**
 - Coarse cereals have characteristics like **drought tolerance, photo-insensitivity and resilient to climate change** etc.
- **Low Cost of cultivation:**
 - The cost of cultivation is less compared to summer paddy cultivation and also it requires lesser quantum of water for irrigation.
- **Increased Coarse Cereals Production:**
 - Coarse cereals have been sown in **17.63 million hectares in 2022** as against 16.93 million hectares in 2021.
 - About **50 million tonnes of coarse cereals** are produced in the country at present.
 - Maize and millets are grown the most.

What Steps are Government Taking to Support Coarse Cereals?

- **Initiative for Nutritional Security through Intensive Millet Promotion (INSIMP):**
 - Government announced an allocation of **Rs. 300 crores in 2011-12** under **Rashtriya Krishi Vikas Yojana** for promotion of millets as **Nutri-cereals**.
 - The scheme aimed to **demonstrate the improved production and post-harvest technologies** in an integrated manner with visible impact to catalyze increased production of millets in the country.
- **Increase in Minimum Support Price:**
 - The government has hiked the **Minimum Support Price** of Millets, which came as a big price incentive for farmers.
 - Further, to provide a steady market for the produce, the government has included millets in the **public distribution system**.
- **Input Support:**
 - The government has introduced provision of seed kits and inputs to farmers, building value chains through Farmer Producer Organisations and supporting the marketability of millets.
- **International Year of Millets:**
 - **The United Nation General Assembly** adopted an India-sponsored resolution to mark 2023 as the "**International Year of Millets**".
 - India celebrated 2018 as the "**National Year of Millets**".

Urban Employment Guarantee

Why in News?

Recently, the government of Rajasthan has launched the flagship scheme for **Urban Employment**; the **Indira Gandhi Shehari Rojgar Yojana**.

What do we need to know about the Scheme?

- **Aim:**
 - To provide **100 days of employment to families in urban areas** on the lines of **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGA)**.

Note:

- The government has allocated Rs 800 crore for the implementation of the scheme.
- **Target Population:** People in the 18 to 60 age group are eligible for the scheme.
- **Employment Opportunities:**
 - **Water Conservation:** The **renovation work** at Khaniyon ki Baori comes under the **water conservation works** of the scheme.
 - **Convergence:** People can be **employed in other centre or state level schemes**, already having a material component, and which require labour work.
 - **Other works include:**
 - **Environmental conservation** such as tree plantation in public places and maintenance of parks.
 - Cleanliness and sanitation-related works such as **solid waste management**.
 - **Heritage conservation** and work related to security/fencing/boundary wall/guarding of urban civic bodies and public lands, etc.
- **Urban Employment Guarantee Schemes of other States:**
 - **Kerala:**
 - **Ayyankali Urban Employment Guarantee Scheme (AUEGS)**, launched in 2010, aims at enhancing the livelihood security of people in urban areas by guaranteeing hundred days of wage employment in a financial year to an urban household whose adult members volunteer to do unskilled manual work.
 - **Himachal Pradesh:**
 - **Mukhya Mantri Shahri Ajeevika Guarantee Yojna** was launched in 2020 to enhance livelihood security in urban areas by providing 120 days of guaranteed wage employment to every household in a financial year.
 - **Jharkhand:**
 - **Mukhyamantri Shramik Yojana** was launched in 2020 to enhance livelihood security in Jharkhand State by providing a guaranteed 100 days wage employment in a financial year.

Why are Urban Employment Guarantee Schemes emerging in India?

- **Absence of “Guarantee” Schemes:**
 - **Swarna Jayanti Shahari Rozgar Yojana (SJSRY)**, launched in 1997, provided employment to the **unemployed and underemployed urban poor** through self-employment and wage employment.
 - In 2013, the SJSRY was replaced by the **National Urban Livelihoods Mission (NULM)**.
 - India has had a history of urban employment schemes, **but none of them were employment “guarantee” schemes.**
 - **Urban unemployment Rates:**
 - Most unemployment data, be it from the **Centre for Monitoring Indian Economy (CMIE)** or the **Periodic Labour Force Survey** shows that the **unemployment rates are typically higher in urban areas.**
 - As per **August 2022 data (CMIE)**, unemployment rate in **urban India stands at 9.57% (Rural 7.68%).**
 - **Vulnerable Informal Sector:**
 - According to the **International Labour Organization**, of the 535 million labour force in India in 2019, **around 398.6 million have poor quality jobs.** Further, the lockdown exposed the **state of vulnerable employment in urban low-end informal jobs.**
 - Vulnerable employment is characterised by **inadequate earnings, low productivity and difficult conditions of work that undermine the basic rights of workers.**
 - **Rural Centric Schemes:**
 - Most of the government schemes providing relief, be it from the Union government or state, **prioritize rural unemployment and poverty like MGNREGA.**
 - **Prime Minister Garib Kalyan Rojgar Abhiyaan**, launched in 2020, with an allocation of Rs 50,000 crore, to **boost employment and livelihood opportunities for migrant workers returning to villages** in the wake of the Covid outbreak.
- ### **Can UEG Scheme be an Extension of MGNREGA?**
- **Existing Scheme’s Framework:**
 - Currently in India, **most UEGs appear to be a mere extension of MGNREGA** to the urban areas.

Note:

- Being the UEG in Himachal Pradesh, Odisha or Kerala, one common feature among them is **providing employment for a specific number of days during the year to the urban households.**
- **However, UEGs cannot be mere extension of MGNREGA due to following reasons:**
 - **Rural unemployment is mostly seasonal.**
 - During peak farming season, very few rural people may be unemployed.
 - **But there is no such seasonality in urban unemployment.**
 - **Capacity of the Panchayati Raj Institutions in rural and urban areas.**
 - **Urban local bodies** are poorly funded and have little capacity to provide help.
 - **The public works** in which the labour is involved are different in rural and urban economies.

Fall in Price of Natural Rubber

Why in News?

Recently, there have been protests by farmers and various organizations due to the price of **natural rubber (NR)** crashing to a sixteen-month low in the Indian market.

What has Caused the Sharp Fall in Prices?

- **Poor Demand and Other Factors:** Due to weak Chinese demand and the European energy crisis, along with high **inflation**.
 - While the unremitting zero COVID strategy in China, which consumes about 42% of the global volume, has cost the industry dearly.
- **Import from Other countries:** There is an ample supply of block rubber from Ivory Coast and compounded rubber from the Far East in the domestic tyre industry.
 - The **Auto-Tyre manufacturing sector** accounted for **73.1%** of the total quantity of natural rubber consumption.

How does the Falling Price affect the Farmer?

- **Crop Shifting:** The impact of the price fall is felt more in the rural areas, where most people are solely dependent on rubber cultivation, therefore, they might switch to other crops.

- It can even lead to the fragmentation of rubber holdings.
- **Effect on Small and Medium Enterprises:** As most of the production occurs in small and medium enterprises, the falling price could lead to their uncertain future and force them to stop production temporarily.
- **Panic in Kerala:** The state accounts for almost 75% of total production, as local economy depends on rubber production, therefore the falling price could lead to major panic in villages of Kerala.

What do we Know about Natural Rubber?

- **Commercial Plantation Crop:** Rubber is **made from the latex** of a tree called **Hevea Brasiliensis**. Rubber is largely perceived as a **strategic industrial raw material** and accorded special status globally for defence, national security and industrial development.
- **Conditions for Growth:** It is an **equatorial crop**, but under special conditions, it is also grown in tropical and sub-tropical areas.
 - **Temperature:** Above 25°C with a moist and humid climate.
 - **Rainfall:** More than 200 cm.
 - **Soil Type:** Rich well-drained alluvial soil.
 - **Cheap and adequate supply of skilled labour** is needed for this plantation crop.
- **Major Producers Globally:** Thailand, Indonesia, Malaysia, Vietnam, China and India.
- **Major Consumers:** China, India, USA, Japan, Thailand, Indonesia and Malaysia.

What is the Status of Rubber Production in India?

- **Production:**
 - The **British established the first rubber plantation in India in 1902** on the banks of the river Periyar in Kerala.
 - India is currently the **fifth largest producer of Natural Rubber** in the world with one of the highest productivity.
 - The production of the material improved by 8.4%, to 7,75,000 tonnes, during 2021-22 compared to 2020-21.
 - It also remains the **second biggest consumer** of the material globally.
 - About **40% of India's total natural rubber consumption** is currently met through **imports**.

Note:



- **Top Rubber Producing States:** Kerala > Tamil Nadu > Karnataka.
- **Government Initiatives:**
 - **Rubber Plantation Development Scheme** and the **Rubber Group Planting Scheme** are examples of government-led initiatives for rubber.
 - 100% **Foreign Direct Investment (FDI)** is allowed in plantations of rubber.
 - **The Department of Commerce** brought out the **National Rubber Policy in March 2019.**
 - The policy includes several **provisions to support the Natural Rubber (NR)** production sector and the entire rubber industry value chain.
 - It is based on the **short-term** and **long-term strategies** identified by the **Task Force** constituted in the rubber sector for mitigating problems faced by rubber growers in the country.
 - Developmental and research activities for supporting the NR sector for the welfare of growers are carried out through **Rubber Board** by implementing the **scheme Sustainable and Inclusive Development of Natural Rubber Sector** in the **Medium-Term Framework (MTF).**

What do we know about the Rubber Board of India?

- It is **headquartered in Kottayam, Kerala**, under the **administration of the Ministry of Commerce and Industry.**
- The Board is responsible for the development of the rubber industry in the country by assisting and encouraging research, development, extension and training activities related to rubber.
 - **Rubber Research Institute** is under the Rubber Board.

Windfall Tax

Why in News?

Recently, the Ministry of Finance has justified the **imposition of Windfall Tax** on domestic **crude oil** producers in July 2022, saying that it was **not an ad hoc (made or done suddenly) move** but was done after full consultation with the industry.

- Besides India, a wave of countries including the United Kingdom, Italy, and Germany have either already imposed a windfall profit tax on **super normal profits of energy companies** or are **contemplating doing so.**

What is a Windfall Tax?

➤ About:

- Windfall taxes are **designed to tax the profits a company derives** from an external, sometimes unprecedented event— for instance, the **energy price-rise as a result of the Russia-Ukraine conflict.**
- These are profits that cannot be attributed to something the firm actively did, like an investment strategy or an expansion of business.
- A windfall is defined as an **“unearned, unanticipated gain in income** through no additional effort or expense”.
- Governments typically levy a **one-off tax retrospectively over and above the normal rates of tax** on such profits, called **windfall tax.**
- One area where such taxes have **routinely been discussed is oil markets**, where price fluctuation leads to **volatile or erratic profits for the industry.**

➤ Rationale:

- There have been varying rationales for governments worldwide to introduce windfall taxes, from **redistribution of unexpected gains when high prices benefit producers at the expense of consumers**, to funding social welfare schemes, and as a **supplementary revenue stream** for the government.

Why are Countries Levying Windfall Taxes Now?

- Prices of oil, **gas**, and **coal** have seen sharp **increases since late last year** and in the first two quarters of the current year, **although they have reduced recently.**
- The increase stems from a combination of factors, **including a mismatch between energy demand and supply** during the economic recovery from **Covid-19**, further amplified by the **Russian war in Ukraine.**
- Pandemic recovery and supply issues resulting from the Russia-Ukraine conflict shore up energy demands, **in turn driving up global prices.**
- The rising prices meant huge and record profits for energy companies while **resulting in hefty gas and electricity bills for household bills** in major and smaller economies.
- The levies came as refiners made major gains by **boosting fuel exports to countries that were in a deficit like Europe**, which has now boycotted oil imports from Russia.

Note:

- The **U.N. (United Nations)** chief urged all governments to tax these excessive profits “and use the funds to support the most vulnerable people through these difficult times.”
- The calls to introduce windfall taxes also found support in organisations like the IMF, which released an **advice note as to how such a tax should be levied.**

What are the Issues with Imposing Windfall Tax?

- **Uncertainty in the Market:**
 - Companies are confident in investing in a sector if there is **certainty and stability in a tax regime.**
 - Since windfall taxes are imposed retrospectively and are often influenced by unexpected events, they **can brew uncertainty in the market** about future taxes.
- **Populist in Nature:**
 - It is believed that such taxes are **populist** and politically opportune in the short term.
- **Reduces Future Investment:**
 - Introducing a temporary windfall profit tax **reduces future investment because prospective investors will internalize** the likelihood of potential taxes when making investment decisions.
- **Not Defined Precisely:**
 - It is not defined **what exactly constitutes true windfall profits** and how it **can be determined** what level of profit is normal or excessive.
 - If rapid increases in prices lead to higher profits, in one sense it can be called true windfalls as they are unforeseeable but it can be argued that it is the profit **the companies earned as a reward for the industries risk-taking** to provide the final product to the end user.
 - It is not defined who should be taxed- only the big companies responsible for the bulk of high-priced sales or smaller companies as well— raising the question of whether producers with revenues or **profits below a certain threshold should be exempt.**

Slide in Global Oil Prices

Why in News?

Brent crude prices **have fallen sharply over the last ten days;** the prices have declined to under USD 90 per barrel.

- While they were trading at around \$110 per barrel in July, 2022.

What led to the Fall in Global Crude Oil Prices?

- The crude prices fell sharply by around 4% and the decline has come **despite Organisation of the Petroleum Exporting Countries (OPEC+) plus announcement to cut supply by 100,000 barrels per day** beginning October, 2022 in a bid to prop up the prices.
- While the prices have been softening over the last couple of months, the recent sharp decline is **due to renewed fears of recession in Europe and decline in demand from China,** which brought in new Covid lockdown measures amid weakening factory activity.
- There is a concern that **these factors could dent the future demand of crude oil.**
- Market participants say OPEC’s decision to cut production is in itself an indication that **it expects a decline in demand** and further softening in prices.

How would Global Crude Oil Price Impact India?

- **Impact of Rise in Global Oil Price:**
 - India imports **nearly 85% of its crude requirement** and in the year ended March 2022, the oil import bill doubled to USD 119 billion on account of rise in prices.
 - The rise in import bill not only leads to inflation and rise in current account deficit and fiscal deficit, **but also weakens the rupee against the dollar** and hurts **stock market** sentiment.
 - A rise in crude oil price **also has an indirect impact on India as it leads to a rise in edible oil prices,** coal prices and also that of fertilizers as they use gas as feedstock. Gas accounts for 80% of all fertilizer production costs.

Note:

- So, if a rise in crude oil prices could lead to a much-enhanced import burden, it also leads to reduction in demand in the economy which hurts growth.
- It could also lead to higher **fiscal deficit** if the government chooses to bear the burden by way of subsidies.
- **Impact of Fall in Global Price:**
 - A softening in crude oil prices is a big relief for all stakeholders – the government, the consumers and even the corporates.
 - If oil continues to trade at lower levels, it will result in lower **inflation** levels, higher disposable incomes and thereby higher economic growth.
 - If on the one hand it is a reflection of expectations of slowdown in global growth which may have its bearing on India's growth too, on the other it comes as a big respite for India.
 - Softening crude oil price has also played a role in the **index rise on equity and debt markets as companies across sectors** are sensitive to crude oil prices.

Healthcare Sector in India

Why in News?

Healthcare has become more focused on innovation and technology over the past two years and **80% of healthcare systems are aiming to increase their investment in digital healthcare tools** in the coming five years.

What is the Scenario of the Healthcare Sector in India?

➤ About:

- Healthcare industry comprises **hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment**.
- India's healthcare delivery system is categorised into two major components - public and private.
 - The government (public healthcare system), comprises **limited secondary and tertiary care institutions** in key cities and focuses on providing basic healthcare facilities in the form of **Primary Healthcare Centres (PHCs)** in rural areas.

- The private sector provides a **majority of secondary, tertiary, and quaternary care institutions** with major concentration in metros, tier-I and tier-II cities.

➤ Market Statistics:

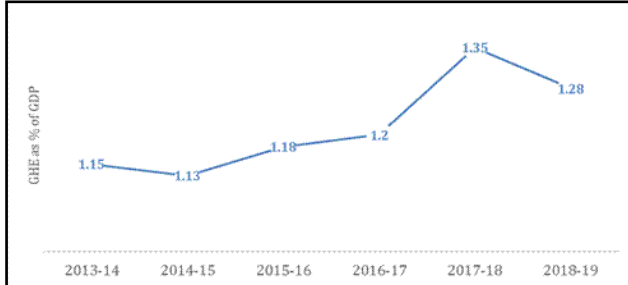
- The Indian healthcare sector is expected to record a **three-fold rise, growing at a CAGR (Compound Annual Growth Rate) of 22% between 2016–22 to reach USD 372 billion in 2022** from USD 110 billion in 2016.
- In the Economic Survey of 2022, India's **public expenditure** on healthcare stood at **2.1% of GDP in 2021-22 against 1.8% in 2020-21 and 1.3% in 2019-20**.
- In FY21, gross direct premium income underwritten by health insurance companies grew 13.3% YoY to Rs. 58,572.46 crore (USD 7.9 billion).
- The Indian **medical tourism market** was valued at USD 2.89 billion in 2020 and is expected to reach USD 13.42 billion by 2026.
- **Telemedicine** is also expected to reach USD 5.5 billion by 2025.

➤ Government Expenditure:

- As per the recent National Health Account (NHA) Estimate 2018-19, there has been an **increase in the share of government health expenditure** in the total GDP of the country. It has increased from **1.15% in 2013-14 to 1.28% in 2018-19**.
 - The National Health Accounts is a process through which countries monitor the flow of money in their health sector.
 - The World Health Organization (WHO) has been coordinating efforts at the global level to produce those estimates for each and every country.
- The Union government's healthcare spends dropped to 1.28 % of the **Gross Domestic Product (GDP)** in 2018-19 from the previous year's (2017-18) **figure of 1.35 %**.
- The total health expenditure (THE) in 2018-19 was Rs 5.96 lakh crore in which government spending was Rs 2.42 lakh crore, which is Rs 1,815 per capita.
- Meanwhile, **out-of-pocket spending** on health stood at Rs 2,155 per capita.
 - Total health expenditure has fallen **from 3.9% of the GDP to 3.2% in five years ending in 2018-19**.

Note:

- The decline in proportion to GDP has happened **despite an increase in the government's share of the country's total health expenditure** — from 29 % in 2014-15 to 40.6 % in 2018-19.
- Estimates show consistently **declining trends in out-of-pocket expenditure** as a share of total health expenditure – from 64.2 % in 2013 to 48.2 % in 2018.



What are the Challenges with the Health Sector?

- **Inadequate Access:**
 - Inadequate access to basic healthcare services such as shortage of medical professionals, a lack of quality assurance, insufficient health spending, and, most significantly, insufficient research funding.
 - One of the **major concerns is the administrations' insufficient financial allocation.**
- **Low Budget:**
 - India's public expenditure on healthcare is only 2.1% of GDP in 2021-22 while Japan, Canada and France spend about 10% of their GDP on public healthcare.
 - Even neighbouring countries like **Bangladesh and Pakistan have over 3% of their GDP** going towards the public healthcare system.
- **Lack of Preventive Care:**
 - Preventive care is **undervalued in India**, despite the fact that it has been shown to be quite beneficial in alleviating a variety of difficulties for patients in terms of unhappiness and financial losses.
- **Lack of Medical Research:**
 - In India, R&D and cutting-edge technology-led new projects receive little attention.
- **Policymaking:**
 - Policymaking is undoubtedly crucial in providing effective and efficient healthcare services. In India, the issue is one of supply rather than demand, and policymaking can help.

- **Shortage in Professionals:**
 - In India, there is a shortage of doctors, nurses, and other healthcare professionals.
 - According to a study presented in Parliament by a minister, **India is short 600,000 doctors.**
- **Paucity of Resources:**
 - Doctors work in **extreme conditions ranging from overcrowded out-patient departments**, inadequate staff, medicines and infrastructure.

What is the Potential of the Indian Health Sector?

- India's competitive advantage lies in its **large pool of well-trained medical professionals**. India is also cost competitive compared to its peers in Asia and western countries. The **cost of surgery in India is about one-tenth** of that in the US or Western Europe.
- India has all the **essential ingredients for the exponential growth** in this sector, including a **large population, a robust pharma and medical supply chain, 750 million plus smartphone users, 3rd largest start-up pool** globally with easy access to **VC (Venture Capital Fund) funding and innovative tech entrepreneurs** looking to solve global healthcare problems.
- India will have about **50 clusters for faster clinical testing of medical devices to boost product development and innovation.**
- The sector will be driven by life expectancy, shift in disease burden, changes in preferences, growing middle class, increase in health insurance, medical support, infrastructure development and policy support and incentives.
- As of 2021, the Indian healthcare sector is **one of India's largest employers as it employs a total of 4.7 million people**. The sector has generated 2.7 million additional jobs in India between 2017-22 -- over 500,000 new jobs per year.

What are the Initiatives for the Health Care Sector?

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

Note:

Karnataka Iron Ore Mining

Why in News?

Recently, the **Supreme Court** raised the “ceiling limit” of iron ore mining for Ballari, Chitradurga and Tumakuru districts in **Karnataka**, saying **conservation of the ecology and environment must go hand in hand with the spirit of economic development.**

- Ten years after the Supreme Court clamped down on **production and sale of iron ore in Karnataka**, the Court has relaxed its own orders.

What do we need to know about the Karnataka Iron Ore Mining Ban?

- **Background:**
 - In 2010, the Supreme Court shut down the **Obulapuram Mining Company (OMC) in Ballari**, after a **Central Bureau of Investigation (CBI)** probe was initiated in 2009 for **illegal mining**.
 - **The illegal mining resulted in** plunder of public wealth, massive loss to exchequer, encroached forest land, ravaged environment and large-scale health issue among local population.
 - The two **Lokayukta** Reports of 2008 and 2011 exposed over 700 government officials, including three chief ministers in the illegal mining scandal.
- **Supreme Court’s Orders:**
 - After the Supreme Court-appointed **Central Empowered Committee (CEC)** report brought attention to rampant violations in mining, the SC passed an order in **2011 to stop mining operations in Ballari**.
 - Additionally, SC **banned export of iron ore pellets from Karnataka** with an aim to prevent **environmental degradation** and to preserve **for future generations** as part of the concept of intergenerational equity.
 - SC also fixed the **maximum permissible annual production limit** at 35 MMT for A and B category mines.

- It directed the **Indian Council of Forestry Research and Education (ICFRE)** to draw up a **reclamation and rehabilitation (R&R)** plan to reverse the **environmental damage caused by illegal mining**.
- In 2012, the SC allowed 18 “**category A**” mines to resume operations.
 - Mines were categorized depending on the extent of illegalities committed by them:
 - **A Category Mines:** These are “leases wherein no illegality/marginal illegality have been found”
 - Mines with more serious infractions fall into **B and C categories**, based on their respective offences.
 - Once the mines were allowed to restart, the ore was sold through e-auctions.

➤ Implication of Order:

- With closure of mines, **steel mills faced raw material shortages**, forcing them to import from outside India, thereby **opening up the country to business for global iron ore giants**.
- The restrictions on production, e-auction and prices had also affected lakhs of mining dependents in Karnataka making their livelihood uncertain.

What have been the Recent Developments on the Issue?

- **Mining Firms Appeal:**
 - In May 2022, **Mining Firms** had asked the SC to **scrap e-auction norms** in the export or sale of iron ore for mining lessees in the districts of Ballari, Tumakuru and Chitradurga.
 - They claimed that they were **facing closure due to their stocks not getting sold**.
- **Karnataka Government’s Stand:**
 - The government of Karnataka is in **favour of a complete removal of the ceiling limit**.
- **Original Petitioners Stand:**
 - The original petitioner opposed any exports on the grounds that **minerals are national assets that need to be preserved and only finished steel should be exported**.

Note:

➤ Supreme Court's Ruling:

- The Supreme Court has **permitted resumption of exports** of already excavated iron ore from the state through modes **other than e-auction**, and also **increased the ceiling limit on mining for the following mines**:
 - **Ballari**: from 28 MMT to 35 MMT
 - **Chitradurga and Tumakuru districts**: from 7 MMT to 15 MMT
- The court ruled that it was **necessary to create a level playing field** for the mines situated in the three districts with others in the rest of the country.

What is E-Auction in Iron Ore Mining?

➤ About:

- An e-auction is a **transaction** between **sellers** (the auctioneers) and **bidders** (suppliers in the business to business scenarios) that takes place on an electronic marketplace.

➤ Process:

- After the completion of every bid, a **three-member monitoring committee**, appointed by the **Supreme Court**, publishes a document that **lists the details of the quality of iron ore, the mine that it belongs to, number of bidders for it and the final takers**.
- Once registered, the buyer can **see forthcoming auctions** on which they can bid.
- Each seller **specifies the quality of ore** that will go under the hammer, its **type** and the **floor price** from which the bidding should start.
- The **sellers** are those who have legal iron ore mines and **buyers** are typically steel manufacturers.

India Became the World's Fifth-largest Economy

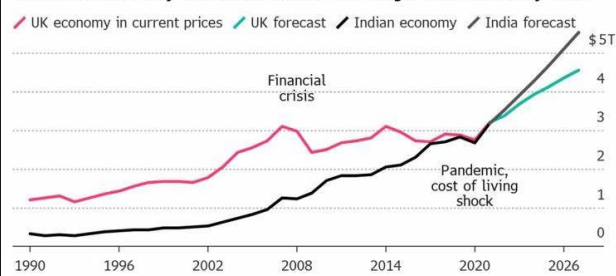
Why in News?

Recently, India became the **world's fifth largest economy by overtaking the United Kingdom**. Now, the United States, China, Japan, and Germany are the only nations with economies larger than India's.

- The real **Gross Domestic product (GDP)** growth of 6-6.5% in a world full of uncertainties is the new normal and **India is set to be the third largest economy by 2029**.

Overtaken

The Indian economy is forecast to be a fifth larger than the UK by 2027



What are the Key Highlights of this Achievement?

➤ New Milestone:

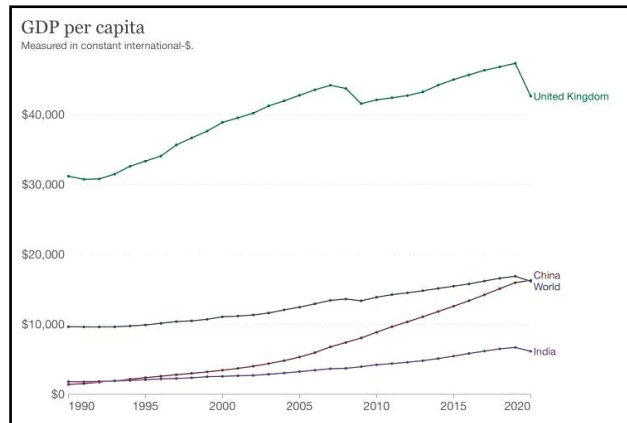
- Moving past one of the biggest economies in the world, **especially one that ruled over the Indian sub-continent for two centuries**, is a major milestone.

➤ Size of Economy:

- The size of the Indian economy in 'nominal' cash terms in the quarter through March, 2022 was USD 854.7 billion while for UK was USD 816 billion.

➤ Comparison with United Kingdom:

- **Population Size:**
 - As of 2022, India has a population of **1.41 billion** while the UK's population is **68.5 million**.
- **GDP Per capita:**



- GDP per capita provides a more **realistic comparison of income levels because it divides a country's GDP by the population of that country**.
- The per capita income in India remains very low, India is ranked 122 out of 190 countries in terms of per capita income in 2021.

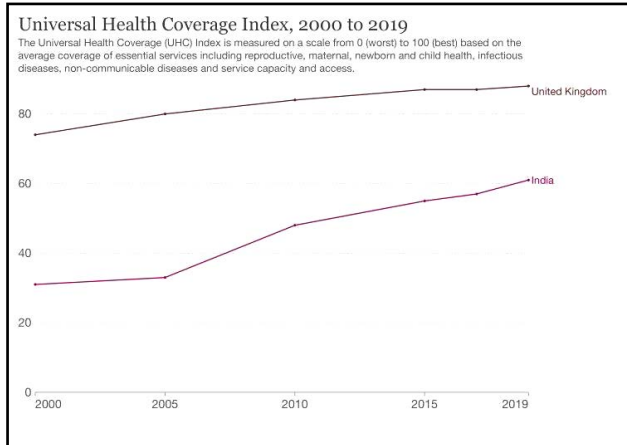
Note:



○ Poverty:

- The low per capita incomes often point to high levels of poverty.
- At the start of the 19th century, the UK's share in extreme poverty was considerably higher than India's.
 - However, the relative positions have reversed even though India has made giant strides in curbing poverty.

○ Health:



- The **Universal Health Coverage (UHC) Index** is measured on a scale from 0 (worst) to 100 (best) based on the average coverage of essential services including reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access.
- While faster economic growth and the government's policy focus on healthcare schemes since 2005 have made a distinct improvement for India, there is still a long way to go.
- **Human development Index:**
 - The end goal of higher GDP and faster economic growth is to have better human development parameters.
 - According to HDI (2019), the UK score is 0.932 and India's score is 0.645 which is comparatively far behind the UK.
 - Despite its secular improvement, India might still take a decade to be where the UK was in 1980.
- **Present outlook:**
 - The dramatic shift has been driven by India's rapid economic growth over the past 25 years as well as downslides in the value of the pound over the last 12 months.

- The right policy perspective and realignment in global geopolitics could further, also lead to an upward revision in its estimates for India.

What are the Issues Related to Indian Economy?

- **Slowing Exports and Rising Imports:**
 - The slowing growth of the manufacturing sector at 4.8% is an area of worry.
 - Also, imports being higher than exports is a matter of concern.
- **Unpredictable Weather:**
 - There is an uneven monsoon that is likely to weigh upon agriculture growth and rural demand.
- **Rising Inflation:**
 - There has been continuous rise in inflation about 6% for seven straight months.
 - The Indian economy faces headwinds from higher energy and commodity prices that are likely to weigh on consumer demand and companies' investment plans.

India's Creative Economy

Why in News?

India's creative economy comprising the arts and crafts, audio and video arts and design, among others, accounted for exports of goods and services worth \$121 billion in 2019, according to a paper by the Exim Bank of India.

What are the Key Findings of the Paper?

- India's total exports of creative goods and services stood close to \$121 billion in 2019, of which exports of creative services accounted for almost \$100 billion.
- In India, the contribution of the design segment was 87.5% of the total creative goods exports in 2019, and another 9% is contributed by art and crafts segment.
- Besides, in the Indian context, the creative goods industry has a trade surplus of \$16 billion.
- Creative economy was significantly diversified in the country and industries such as the entertainment sector give an important push to the creative economy.

Note:

- **India ranks 6th globally**, outside the U.S., with respect to the **top international box office markets by revenue**.
- As per the study, **technology is playing a critical role** along with human creativity, knowledge, intellectual property in this evolving arena.

What is the Significance of this Study?

- The research paper maps the **untapped export potential of India's creative economy**.
- This study '**Reflection & Development of India's Creative Economy**' is **first of its kind**.
- It analysed **seven** different creative segments such as **art & crafts, audio visuals, design and visual arts**, as per the UN classification, **to map their export potential**.
- The study **also captured the role of artificial intelligence and machine learning, extended reality, and blockchain**, which are impacting the functioning of the creative economy.
- It also **analyses the Creative Economy policies of countries such as the U.K., Australia, France, South Korea, Indonesia, and Thailand** where creative economy has found significant importance, with dedicated ministries or institutions.

Ban on Exports of Broken Rice

Why in News?

Recently, **India has banned exports of broken rice** and imposed a 20% duty on exports of non-Basmati rice except for parboiled rice to boost domestic supplies amid a fall in area under the paddy crop in the current Kharif season.

- **India** is the world's biggest exporter of rice which accounts for **more than 40% of global rice shipments** and it competes with Thailand, Vietnam, Pakistan, and Myanmar in the world market.

What is the Significance of Broken Rice?

- It is often used in the **manufacture of feed for very young animals and for pets**. Further, it is used for all types of livestock and is particularly suitable **due to its rich caloric value and low fibre content**.
- It is also used in the **brewing industry, where it is mixed with barley** and the **production of arak (aniseed alcoholic drink, distilled, colourless drink)**

- It is a raw material for rice flour, used in baby food, breakfast cereals, rice wine, rice liqueur, sake, and prepackaged and canned foods.

Why did the Government Ban the Export?

- **Unusual rise in Exports:** The broken rice exports have **increased 42 times to 21.31 lakh metric tonnes (LMT)** during April-August 2022 as compared to 0.51 LMT during the corresponding period of 2019.
 - China was the top buyer (15.85 LMT) of Indian broken rice in 2021-22.

BROKEN RICE EXPORTS OVER THE YEARS

COUNTRY	FY19	FY20	FY21	FY22
China	—	—	2.73	15.85
Senegal	6.73	1.62	8.64	9.22
Vietnam	—	—	1.87	3.44
Djibouti	1.08	0.17	1.07	2.44
Indonesia	1.51	—	0.41	2.08
TOTAL	12.21	2.7	20.64	38.9

(Lakh metric tonnes)

- **Paucity in Domestic Market:** Broken rice is also not available either for **poultry feed or for ethanol for which they were using broken rice or damaged foodgrains**.
- **Rise in Global Demand:** There has been a rise in global demand for broken rice due to a geo-political scenario which has impacted price movement of commodities.
- **Decline in Domestic Production:** The likely shortfall in area and production of Paddy for the Kharif season 2022 is 6% approx.
 - The total rice sowing during the current kharif season has been so far about 20 lakh hectares less as compared to the corresponding figure of the last year due to **poor rains in some states**.
 - Rice production may fall by 10 million tonnes and in the worst case it can be 12 million tonnes.

US Start-up SETU

Why in News?

The Union Minister of Commerce and Industry recently launched the **US Startup SETU** - Supporting Entrepreneurs in Transformation and Upskilling programme in the Bay Area of San Francisco, United States of America.

Note:

What are Startups?➤ **About:**

- The term startup refers to a company in the first stages of operations. Startups are founded by one or more entrepreneurs who want to develop a product or service for which they believe there is demand.
- These companies generally start with high costs and limited revenue, which is why they look for capital from a variety of sources such as venture capitalists.

➤ **Growth of Startups in India:**

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** has recognized startups which are spread across 56 diversified sectors.
 - More than 4,500 Startups have been recognized in sectors relating to emerging technologies such as **Internet of Things (IoT), robotics, artificial intelligence**, analytics, etc.
- Sustained Government efforts in this direction have **resulted in increasing the number of recognized Startups from 471 in 2016 to 72,993 in 2022.**

What is Startup SETU?➤ **About:**

- SETU or **Supporting Entrepreneurs in Transformation and Upskilling** is an Indian government initiative under **Ministry of Commerce & Industry**.
- The initiative would connect start-ups in India to US-based investors and start-up ecosystem leaders with mentorship and assistance in various areas including funding, market access and commercialization.

➤ **Significance:**

- To **break the geographical barriers between US mentors willing to invest in entrepreneurship** and sunrise startups in India.
- The interaction will be supported through the mentorship portal under the Startup India initiative MAARG, or the **Mentorship, Advisory, Assistance, Resilience, and Growth program**, which is a single-stop solution finder for startups in India.
 - The portal has been developed with the idea to be accessible from every corner of the country to connect with a mentor.

➤ **Need:**

- It is estimated that **about 90% of the start-ups and more than half of the well-funded startups fail in their early days**. Lack of experience in handling the business is a key issue, and founders require the right guidance for taking a decision and moral support.
- As India becomes a leading start-up destination, the proper guidance at the right time is paramount. Further, the Government of India invites stalwarts, seasoned experts, and industry leaders to give back to the nation by adding value to a startup's journey.

India & Startup**Why in News?**

Recently, the government of India has stated that **India ranks 3rd globally in Start-Up ecosystem** and also, in terms of **the number of Unicorns**.

What are Startups & Unicorns?➤ **Startup:**

- The term startup refers to a **company in the first stages of operations**. Startups are founded by **one or more entrepreneurs** who want to develop a product or service for which they believe there is demand.
- These companies **generally start with high costs and limited revenue**, which is why they look for capital from a variety of sources such as venture capitalists.

➤ **Unicorn:**

- A unicorn is **any privately owned firm with a market capitalization of more than USD 1 billion**.
- It denotes **new entities** dedicated to offering creative solutions and new business models, among other things.
- There are several categories like **fintech, Edtechs, B2B** (Business-to-Business) companies, etc.

What is the State of Startups India?➤ **Status:**

- India has become the **3rd largest start-up ecosystem** in the world after the US and China.
 - India is home to as many as **75,000 Startups**.
 - 49% of start-ups are from **tier-2 and tier-3 cities**.

Note:

- There are currently **105 unicorns**, out of which 44 were born in 2021 and 19 in 2022.
- Startups are also emerging in the fields like **IT, agriculture, aviation, education, energy, health and space sectors.**
- **Global Innovation Index:**
 - India has been ranked in its global ranking of **Global Innovation Index (GII)** from 81st in the year 2015 to **46th in 2021** among 130 economies of the world.
 - India ranks 2nd among 34 **lower middle-income economies** and 1st among 10 **Central and Southern Asian economies** in terms of GI.
- **Other Rankings:**
 - **Publications:** Globally ranked **3rd (2021) from 6th in 2013** based on the National Science Foundation database.
 - **Patents:** Globally ranked **9th (2021)** in terms of **resident patent filing.**
 - **Quality of Research Publications:** Globally ranked 9th (2021) from 13th in 2013.

What are the Growth Drivers & Challenges for Startups?

- **Growth Drivers:**
 - **Government Support:** India has increased the **Gross Expenditure on R&D (GERD)** more than three times in the last few years.
 - India has over 5 lakh R&D personnel, the number that has shown a 40-50% increase in the last 8 years.
 - In the last 8 years, women's participation in extramural R&D has also doubled
 - **Adoption of Digital Services:** The **pandemic** accelerated the adoption of **digital services** by consumers helping **start-ups and new-age ventures build tech-focused businesses** for customers.
 - **Online Services and Work from Home Culture:** Many Indians moved to **online services** exploring a host of services ranging from **food delivery and Edu-tech to e-grocery.**
 - The **Work-from-home culture** helped increase the number of start-ups' user base and expedited their business expansion plans and attracting investors.

- **Digital Payments:** The growth of **Digital Payments** is another aspect that aided the unicorn the most.
- **Buyouts from Major Public Corporations:** Many startups become unicorns as a **result of buyouts from major public corporations** that prefer to focus on acquisitions to grow their business rather than investing in internal growth.
- **Challenges:**
 - **Increasing Investments Do Not Ensure Success of a Startup:** The **billions of dollars** being invested in startups represent the large bets on distant outcomes, and do not value generation by way of revenues.
 - One cannot assume the high rate of survival of these startups with such investments, as it can be assured by profits.
 - **India, still a Marginal Player in the Space Sector:** Currently, the **global space economy** is worth USD 440 billion, with India **having less than 2% share in the sector.**
 - The reason for the lack of independent private participation in space includes the **absence of a framework to provide transparency and clarity in laws.**
 - **Indian Investors Unwilling to Take Risks:** The big investors in India's startup sector are from overseas, **Japan's SoftBank, China's Alibaba, and Sequoia from the US.**
 - That's because **India does not have a serious venture capital industry** with an appetite for risk.

What are Government's Initiatives for Startups?

- **National Initiative for Developing and Harnessing Innovations (NIDHI)**
- **Startup India Action Plan (SIAP)**
- **Ranking of States on Support to Startup Ecosystems (RSSSE)**
- **Startup India Seed Fund Scheme (SISFS):** It aims to provide financial assistance to startups for proof of concept, prototype development, product trials, market entry and commercialization.
- **National Startup Awards:** It seeks to recognize and reward outstanding startups and ecosystem enablers that are contributing to economic dynamism by spurring innovation and injecting competition.

Note:

- **SCO Startup Forum:** The first-ever **Shanghai Cooperation Organisation (SCO)** Startup Forum was launched in October 2020 to develop and improve startup ecosystems collectively.
- **Prarambh:** The 'Prarambh' Summit aims to provide a platform to startups and young minds from around the world to come up with new ideas, innovation and invention.

Review of Gas Pricing Formula

Why in News?

The Ministry of Petroleum and Natural Gas has set up a committee under noted energy expert Kirit Parikh to review the current **pricing formula for domestically-produced gas**.

What is the Need to revisit the Gas-Pricing Formula?

- **High Prices:**
 - Local gas prices are at a record high due to the surge in global prices because of the ongoing **Russia-Ukraine conflict** and are expected to rise further.
 - Skyrocketing global natural gas prices lifting energy and industrial costs and derailing the efforts to contain inflation are raising concerns.
 - The country has been battling inflation above the Reserve Bank of India's tolerance band of 2%-6% for seven consecutive months.
- **Current Formula is Myopic:**
 - The current formula is "myopic" and **does not incentivise gas producers**.
 - In India, gas penetration in its energy mix is 6% as against a global average of 23 %.
 - The objective is to improve this number to 15% over the next few years.
- **Underpricing Penalizes the Producers:**
 - India's gas price is determined at an average price of LNG imports into India and benchmark global gas rates.
 - India is simply underpricing a scarce resource.
 - At current prices, the producer is penalised and somehow the consumer trumps the producer.

What is the Scenario of Gas Market in India?

- Total consumption in India is 175 million standard cubic meters a day (MMSCMD).
 - Of this 93 MMSCMD is **met through domestic production and 82 MMSCMD through LNG imports**. Gas consumption is directly linked to supply availability.
- Of natural gas consumed in the country, **almost 50% is imported LNG**.
- Fertiliser sector is the **largest consumer of gas**, accounting for a third of the consumption, followed by city gas distribution or CGD (23%), power (13%), refineries (8%) and petrochemicals (2%).
- The industry fears that the **world's third largest energy consumer could see its natural gas consumption decline** from the current levels if LNG (imported gas) prices in the international market continue to rule in the range of USD 45 an mmBtu (Metric Million British Thermal Unit).

What is the Current Gas Pricing in India?

- **About:**
 - **Gas priced under APM (Administered Price Mechanism)**, which is set by the Government.
 - **Under this system**, the oil and gas sector are controlled at four stages viz. **production, refining, distribution and marketing**.
 - **Non-APM or Free Market Gas**, which is further divided into two categories, namely, **domestically produced gas from Joint Venture fields and imported LNG**.
 - The **pricing of JV gas** is governed in terms of the **PSC (Production Sharing Contract)** provisions.
 - While the **price of LNG** under term contracts is governed by the **SPA (Sale and Purchase Agreement)** between the **LNG seller and the buyer**, the spot cargoes are purchased on mutually agreeable commercial terms.
 - Further, there is **differential pricing existing for different sectors**. Subsidized sectors such as power and fertilizer get **relatively less prices as compared to other sectors**.
 - Also, **region specific pricing exists in the country** with North Eastern states getting gas at relatively cheaper prices as compared to other parts of the country.

Note:

- Pricing of a major share of gas supplies in the Indian market is **controlled and is not market driven as government approval is required before changing the price.**

➤ **Issues:**

- Controlled pricing may result in disincentivizing investments in the sector in terms of limited participation from foreign players, who have access to technology, much required in deep-water E&P activities.
- Also, controlled pricing **hampers the competitiveness of consumer sectors** (power/ fertilizer/ domestic) to compete with global energy markets as it leads to low investments in energy efficiency on the demand side.

First Disbursement under PLI Scheme

Why in News?

Recently, **the first-ever disbursement has been approved** by the empowered Committee in **Production Linked Incentive (PLI) scheme** for mobile manufacturing under 'Large-Scale Electronics Manufacturing' sector.

- Indian company **Padget Electronics is the first beneficiary** to receive incentive.

What is the PLI Scheme?

➤ **About:**

- The PLI scheme was **conceived to scale up domestic manufacturing capability**, accompanied by **higher import substitution and employment generation.**
- The government has set aside **Rs 1.97 lakh crore under the PLI schemes** for various sectors and an additional allocation of Rs 19,500 crore was made towards PLI for solar PV modules in **Budget 2022-23.**
- Launched in **March 2020**, the scheme initially **targeted three industries:**
 - **Mobile and allied Component Manufacturing**
 - **Electrical Component Manufacturing and**
 - **Medical Devices**

➤ **Incentives Under the Scheme:**

- The incentives, calculated on the **basis of incremental sales**, range from as low as **1% for the electronics and technology products to as high as 20%** for the manufacturing of critical key starting drugs and certain drug intermediaries.
- In some sectors such as **advanced chemistry cell batteries, textile products and the drone industry**, the incentive to be given will be **calculated on the basis of sales, performance and local value addition done** over the period of five years.

➤ **Sectors for which the PLI Scheme has been Announced:**

- So far, the **government has announced PLI schemes for 14 sectors** including **automobile and auto components, electronics and IT hardware, telecom, pharmaceuticals, solar modules, metals and mining, textiles and apparel, white goods, drones, and advanced chemistry cell batteries.**

➤ **Objectives:**

- The Government introduced this scheme to **reduce India's dependence on China and other foreign countries.**
- It supports the **labour-intensive sectors** and aims to increase the employment ratio in India.
- This scheme works to **reduce the import bills and boost domestic production.**
 - However, PLI Yojana invites foreign companies to set up their units in India and encourages domestic enterprises to expand their production units.

What is PLI scheme for Large-Scale Electronics Manufacturing?

➤ **About:**

- It is mapped to the **Union Ministry of Electronics and Information Technology (MEITY).**
- The PLI scheme on **Large-Scale Electronic Manufacturing**, which includes manufacturing of mobile phones and manufacturing of specified electronic components, was **approved in March 2020, with a total outlay of Rs 38,645 crores.**

Note:



- **Progress So Far:**
 - **Thirty-two beneficiaries had been approved** under the PLI scheme for Large-Scale Electronics Manufacturing, of which **10 (5 global and 5 domestic companies) were approved for mobile manufacturing.**
 - This PLI scheme has also **generated employment of 28,636.**
 - Over the last 3 years, **exports have grown by 139%.**
- **Significance:**
 - It is expected to **make India a competitive destination for electronics manufacturing.**
 - Further, it will give a **boost to Atmanirbhar Bharat while creating more global champions.**
 - The scheme is expected to bring in **additional production to the tune of Rs 10,69,432 crore and generate employment for 7,00,000 people.**

Rise in Retail Inflation & Contract in Index of Industrial Production

Why in News?

According to the recent **National Statistical Office (NSO) data**, the retail inflation **rose to 7%** in July, 2022 and the **Index of Industrial Production (IIP)** declined to a four-month low of 2.4% in July, 2022 as against a growth of 11.5% in 2021.

- Nine of the 22 manufacturing sub-sectors reported a contraction in output, including food products, tobacco products, leather products and electrical equipment.

What is Inflation?

- Inflation refers to the **rise in the prices of most goods and services** of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
- Inflation is indicative of the **decrease in the purchasing power** of a unit of a country's currency. This could ultimately lead to a deceleration in economic growth.
- However, a **moderate level of inflation is required in the economy** to ensure that production is promoted.
- In India, the NSO under the Ministry of Statistics and Programme Implementation measures inflation.

- In India, inflation is primarily measured by two main indices — **WPI (Wholesale Price Index)** and **CPI (Consumer Price Index)** which measure wholesale and retail-level price changes, respectively.
 - **Consumer Price Index**
 - It measures price changes from the **perspective of a retail buyer.**
 - The CPI calculates the difference in the price of commodities and services such as food, medical care, education, electronics etc, which Indian consumers buy for use.
 - Four types of CPI are as follows:
 - **CPI for Industrial Workers (IW).**
 - **CPI for Agricultural Labourer (AL).**
 - **CPI for Rural Labourer (RL).**
 - **CPI (Rural/Urban/Combined).**
 - Of these, the first three are compiled by the Labour Bureau in the **Ministry of Labour and Employment.** Fourth is compiled by the National Statistical Office (NSO) in the Ministry of Statistics and Programme Implementation.
 - **Base Year for CPI is 2012.**
- The **Monetary Policy Committee (MPC)** uses CPI data to control inflation.
- **Headline and Core Inflation:**
 - The food and fuel inflation form one of the components of headline inflation in India.
 - **Headline Inflation** is the total inflation for the period, comprising a basket of commodities.
 - **Core Inflation** excludes volatile goods from the basket of commodities tracking Headline Inflation. These volatile commodities mainly comprise food and beverages (including vegetables) and fuel and light (crude oil).
 - **Core inflation = Headline inflation – (Food and Fuel) inflation**

What are the Causes of Recent Inflation in India?

- **Food Inflation:** The uptick in inflation was largely driven by 'a broad-based rise across the food segment', with a higher inflation in cereals, pulses, milk, fruits.
 - The price rise in cereals rose further from 6.9% in July to 9.6% in August (2022).

Note:

- Rural inflation saw a sharper rise than urban inflation.
- **Low Kharif output:** Due to erratic monsoon, the Kharif crop sowing is unlikely to touch last year's levels of production, therefore food inflation could remain a problem in the near future.
- **Base Effect:** The rise in inflation is attributable both to an adverse base effect and an increase in food and fuel prices.
 - Core inflation — headline inflation excluding food and fuel — was at 5.9% in August, remaining below the tolerance limit of 6% for the fourth consecutive month.
- **Other reasons:** Global inflation pressures, Inflationary expectations, Weakness in Indian currency, etc.

What is the Index of Industrial Production?

- IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
- It is compiled and published monthly by the **National Statistical Office (NSO)**, Ministry of Statistics and Programme Implementation.
- It is a composite indicator that measures the growth rate of industry groups classified under:
 - Broad sectors, namely, Mining, Manufacturing, and Electricity.
 - Use-based sectors, namely Basic Goods, Capital Goods, and Intermediate Goods.
- The base year for IIP is 2011-2012.
- **Significance of IIP:**
 - It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
 - IIP remains highly relevant to calculating the quarterly and advance **GDP (Gross Domestic Product)** estimates.
- **About Eight Core Sectors:**
 - These comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).
 - The eight core sector industries in decreasing order of their weightage: Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.

What are the Reasons for Recent IIP Contraction?

- Mining sector output contracted 3.3 per cent in July, 2022. Non-durables contracted 2.0% in July, 2022.
 - The sharp YoY contraction in mining output in July 2022 was a surprise, given the double-digit growth in coal output, and is likely to have been **led by the excess rainfall seen during the month.**
- The IIP growth plunged to a four-month low due to the **shift in discretionary consumption to contact-intensive services** also.
- Industrial output was only 2.1% higher than pre-Covid levels of July 2019, with the consumer durables and non-durables segment lagging their pre-Covid levels by 6.8% and 2.5 %.
- Supply disruptions, the weakening global growth outlook also impact the industrial output.

World Dairy Summit 2022

Why in News?

Recently, Prime Minister inaugurated the **International Dairy Federation World Dairy Summit (IDF WDS) 2022 at India Expo Centre & Mart, Greater Noida.**

- **International Dairy Federation** is the leading source of scientific and technical expertise for all stakeholders of the dairy chain.
 - Since 1903, IDF's network of dairy experts has provided a mechanism for the dairy sector to reach a global consensus on how to help feed the world with safe and sustainable dairy products.

What are the Key Highlights of IDF World Dairy Summit?

- The IDF World Dairy Summit is an **annual meeting of the global dairy sector**, bringing together approximately 1500 participants from all over the world.
- The last such Summit was held in India about half a century ago in 1974.
- The theme for this year is **Dairy for Nutrition and Livelihood.**
- The IDF World Dairy Summit will provide a forum to industry experts to share knowledge and ideas on how the sector can contribute to nourish the world with safe and sustainable dairying.

Note:

- Participants will get an opportunity to acquire knowledge on latest research findings and experiences relevant to the global dairy sector in the broadest sense.

What is the status of Dairy sector in India?

➤ **About:**

- India is ranked **first in milk production contributing 23 % of global milk production** followed by the United States of America, China, Pakistan and Brazil.
- The top 5 milk-producing states are: Uttar Pradesh (14.9%), Rajasthan (14.6%), Madhya Pradesh (8.6%), Gujarat (7.6%), and Andhra Pradesh (7.0%).

➤ **Significance:**

- The potential of the dairy sector not only gives impetus to the rural economy, but is also a major **source of livelihood** for crores of people across the world.
- This sector provides employment to more than 8 crore families in the country.
- There are **more than a third of the members of dairy cooperatives** in India are women.

What are the Challenges of this Sector?

- **Shortage of fodder:** There is an excessive number of **unproductive animals** which compete with productive dairy animals in the utilisation of available feeds and fodder.
 - The grazing area is being reduced markedly every year due to industrial development resulting in shortage of supply of feeds and fodder to the total requirement.
- **Health: Veterinary health care centres are located in far off places** and the ratio between cattle population and veterinary institution is wider, resulting in inadequate health services to animals.
 - Further, **no regular and periodical vaccination schedule is followed**, regular deworming programme is not done as per schedule, resulting in heavy mortality in calves, especially in buffalo.

- **Hygiene Conditions:** Many cattle owners do not provide proper shelter for their cattles leaving them exposed to extreme climatic conditions.

- **Informal Nature of Dairy Sector:** Unlike sugarcane, wheat, and rice-producing farmers, cattle raisers are unorganised and do not have the political clout to advocate for their rights.

- **Lack of Remunerative Pricing:** Though the value of milk produced outweighs the combined value of the output of wheat and rice in India, there is no official and periodical estimate of the cost of production and **Minimum Support Price** for milk.

What are the Initiatives taken by Government?

- **Rise in Productivity:** The government has taken multiple steps for the betterment of the dairy sector resulting in an **increase of milk production by more than 44% in the last eight years.**

- Further, as compared to the 2% production growth at the global level, India is clocking the milk production growth rate at more than 6%.

➤ **Schemes:**

- **Rashtriya Gokul Mission**
- **Nationwide Artificial Insemination Programme**
- **Rashtriya Gokul Mission**
- **Goberdhan Yojna**
- **Digitization of dairy sector and universal vaccination of cattle.**
- **Animal Husbandry infrastructure development fund:** It aims to help to increase meat processing capacity and product diversification thereby providing greater access for unorganized Dairy producers to organized the Dairy market.

- **National Programme for Dairy development**

➤ **Upcoming Initiatives:**

- **Dairy Ecosystem:** The government is working on developing a **blanched dairy ecosystem** where challenges of the sectors would be addressed along with a focus on increasing production.

Note:

- Further, extra income for the farmers, empowerment of the poor, swachhta, chemical-free farming, clean energy and care of the cattle is interlinked in this ecosystem.
- **Pashu Aadhar:** Government is building the **largest database of dairy animals** and every animal associated with the dairy sector is being tagged.
- By 2025, India will vaccinate 100% of animals against **foot, mouth disease and brucellosis**.

Agricultural and Processed Food Exports

Why in News?

Recently, the Directorate General of Commercial Intelligence and Statistics (DGCI&S) has released the data of **India's Agricultural and processed food products exports** for the first quarter of current Fiscal (April-July 2022-23).

- DGCI&S, under the Ministry of Commerce, Government of India, is the **pioneer official organization for collection, compilation and dissemination of India's Trade Statistics** and Commercial Information.

What are the Findings?

- India's Agricultural and processed food products exports **rose by 30 % to USD 9.6 billion during** in the first four months of the current Financial Year 2022-23 in comparison to the corresponding period of FY 2021-22.
- For 2022-23, an export target of USD 23.56 billion has been fixed for the agricultural and processed food products basket.
- Exports of fruits and vegetables registered a 4 % growth during the period.
- Basmati Rice exports witnessed a growth of 29.13 %.
- Exports of non-Basmati rice rose by 9.24% during the period under review to USD 2.08 billion.
- The export of **dairy products recorded a growth of 61.91 %** to USD 247.

What is the Scenario of Agriculture, Food Industry and Exports?

- **About:**
 - The agriculture sector is the **largest source of livelihood in India**. India is **one of the largest**

producers of agriculture and food products in the world.

- In 2021-22, India's agriculture sector growth rate was estimated to be at 3.9% as compared to the 3.6% in the previous year.
- India produces many crops and food grains such as **rice, wheat, pulses, oilseeds, coffee, jute, sugarcane, tea, tobacco, groundnuts, dairy products, fruits, etc.**
- India's agriculture sector **primarily exports agri & allied products, marine products, plantation, and textile & allied products.**
- **Statistics:**
 - During 2021-22, India recorded USD 49.6 billion in total **agriculture exports with a 20% increase from USD 41.3 billion in 2020-21.**
 - Agri & allied products exports were valued at US\$ 37.3 billion, recording a growth of 17% over 2020-21.
 - **Rice is the largest exported agricultural product** from India and contributed to more than 19% of the total agriculture export during the year 2021-22.
- **Export Destinations:**
 - The largest **importers of India's agricultural products** are USA, Bangladesh, China, UAE, Indonesia, Vietnam, Saudi Arabia, Iran, Nepal and Malaysia.
 - The other importing countries are Korea, Japan, Italy, and the UK.
 - During 2021-22, the **USA was the largest importer of Indian agricultural products.**
 - Bangladesh is the **major importer of Agri & allied products** followed by UAE.
 - **USA and China** are major importers of **India's marine products.**

What are the Growth Drivers?

- **B2B Exhibitions:** Various initiatives have been taken for the export promotion of agricultural and processed food products such as **organising B2B (Business to Business) exhibitions** in different countries, exploring new potential markets through product-specific and general marketing campaigns by the active involvement of Indian Embassies.

Note:



- **Agriculture Export Policy 2018:** Key objectives of the AEP are to **diversify export basket and destinations, to boost high value-added agricultural exports**, to promote indigenous, organic, traditional and non-traditional Agri products exports.
- **Financial Assistance Scheme:** It is an export promotion scheme by (APEDA). The primary aim of this scheme is to **assist businesses in export infrastructure** development, quality development and market development.
- **APEDA:** In a bid to give a boost to the export of Indian wine, the **APEDA (Agricultural and Processed Food Products Export Development Authority)** facilitated participation of 10 wine exporters in the London Wine Fair
- **GI and Other Initiatives:** Several initiatives have also been taken to promote **products having registered Geographical Indications (GI)** in India by organizing virtual Buyer Seller Meets on agricultural and food products with the United Arab Emirates and on GI products, including handicrafts with the USA.



Note:

Social Issues

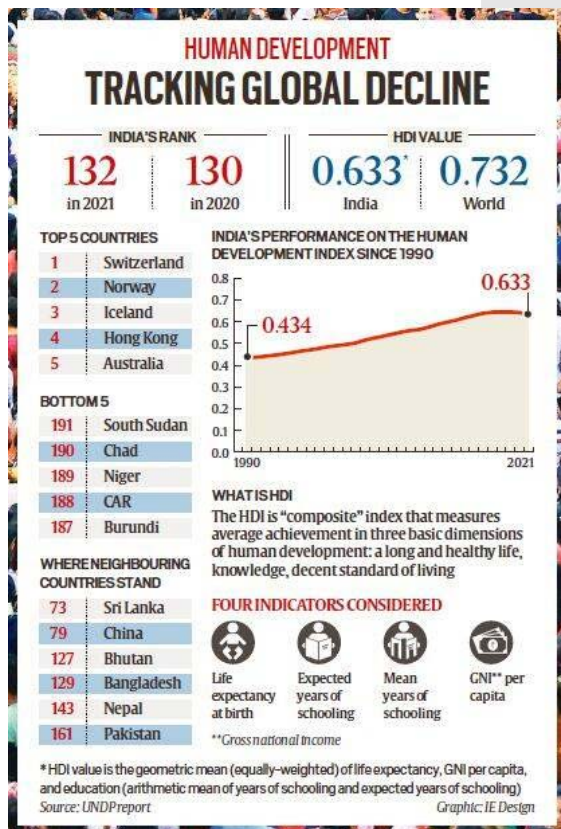
Highlights

- Human Development Report 2021-22
- Pradhan Mantri TB Mukh Bharat Abhiyan
- Operation 'Gear Box'
- The Gender Snapshot 2022
- Corruption in Civil Service
- Ban on Conversion Therapy for the LGBTQIA+
- Status of Social Protection in India
- Uniformed Forces and Mental Health
- State of the World's Healthcare Facilities

Human Development Report 2021-22

Why in News?

According to the **Human Development Report 2021-22**, India's rank on the **Human Development Index (HDI)** has slipped from 130 in 2020 to 132 in 2022, in line with a global fall in HDI scores in the wake of the **Covid-19** pandemic.



What is Human Development Report?

- **About:**
 - Human Development Reports (HDRs) have been released since 1990 and have explored different themes through the human development approach.
 - It's **published by the Human Development Report Office for the United Nations Development Programme (UNDP)**.
- **Goal:** The goal is to contribute toward the expansion of opportunities, choice and freedom.
- **Theme:** The theme for Human Development Report 2021-22 is **Uncertain Times, Unsettled Lives: Shaping our Future in a World in Transformation**.

What is the Human Development Index?

- HDI is a **composite index that measures average achievement** in human development taking into account four indicators:
 - Life expectancy at birth (Sustainable Development Goal 3),
 - Expected years of schooling (Sustainable Development Goal 4.3),
 - Mean years of schooling (Sustainable Development Goal 4.4),
 - **Gross national income (GNI)** (Sustainable Development Goal 8.5).

What are the Key Highlights of the Report?

- **Global:**
 - Ninety percent of countries have registered a reduction in their **Human Development Index** value in 2020 or 2021, reversing much of the progress toward the **Sustainable Development Goals**.

Note:

- **Drop in Life Expectancy:** A large contributor to the Human Development Index's recent decline is a global drop in life expectancy, down from 72.8 years in 2019 to 71.4 years in 2021.

➤ **Indian Perspective:**

- **Human Development Index:** India's HDI value stood at **0.633 in 2021**, which was lower than the world average of 0.732. In 2020, too, India recorded a decline in its HDI value (0.642) in comparison to the pre-Covid level of 2019 (0.645).
- **Life expectancy:** In 2021, India's **life expectancy at birth was recorded at 67.2 years**.
- **Schooling:** Expected years of schooling at 11.9 years; mean years of schooling at 6.7 years;
- **Gross National Income:** The gross national income per capita stood at USD 6,590.
- **Gender Inequality Index:** India has been ranked 122 on the **Gender Inequality Index**.

➤ **Other insights:**

- **Humans are not prepared for climate change:** It stated that humans were unprepared for a world with climate crises like **fires and storms and other planetary-level changes** brought about due to the Anthropocene in recent years.
- **Population Decline of Insects:** Without an abundance of insect pollinators, humans face the mind-boggling challenge of **growing food and other agricultural products at scale**.
 - As insects are important because of their **diversity, ecological role and influence on agriculture, human health and natural resources**.
 - They create the **biological foundation for all terrestrial ecosystems**, further, they **cycle nutrients, pollinate plants, disperse seeds, maintain soil structure and fertility**, control populations of other organisms and provide a major food source for other taxa.
- **Microplastic menace:** Plastics are now everywhere, in country-sized garbage patches in the ocean, in protected forests and distant mountaintops and in people's lungs and blood.

Pradhan Mantri TB Mukh Bharat Abhiyan

Why in News?

Recently, to speed up the country's fight against **tuberculosis (TB)** and achieve the target set by the Prime Minister of eliminating the disease by 2025, President launched the **Pradhan Mantri TB Mukh Bharat Abhiyan**.

What is Tuberculosis?

- **About:** Tuberculosis (TB) is an infectious disease caused by **Mycobacterium tuberculosis**.
 - It commonly affects the lungs, but can also affect other parts of the body.
 - It is a **treatable and curable disease**.
- **Transmission:** TB is **spread from person to person through the air**. When people with lung TB cough, sneeze or spit, they propel the TB germs into the air.
- **Symptoms:** **Common** symptoms of active lung TB are cough with sputum and blood at times, chest pains, weakness, weight loss, fever and night sweats.
- **Vaccine:** Bacille Calmette-Guérin (BCG) is a vaccine for TB disease.
- **Statistics:**
 - A total of 1.5 million people died from TB and an estimated 10 million people fell ill with tuberculosis (TB) worldwide in 2020.
 - India has the **world's highest tuberculosis (TB) burden**, with an estimated 26 lakh people contracting the disease and approximately 4 lakh people dying from the disease every year.
- **Challenges for India:**
 - Major challenges to control TB in India include **poor primary health-care infrastructure in rural areas** of many states; **unregulated private health care** leading to widespread **irrational use of first-line and second-line anti-TB drugs**; poverty; lack of political will; and, above all, corrupt administration.

Note:



What Pradhan Mantri**TB Mukht Bharat Abhiyan?**

- **About:**
 - It's an initiative of Ministry of Health and Family Welfare (MOHFW) to accelerate the country's progress towards TB elimination by 2025.
- **Objectives:**
 - Provide additional patient support to improve treatment outcomes of TB patients
 - Augment community involvement in meeting India's commitment to end TB by 2025.
 - Leverage **Corporate Social Responsibility (CSR)** activities.
- **Components:**
 - **Ni-kshay Mitra Initiative:** It is to ensure **additional diagnostic, nutritional, and vocational support** to those on TB treatment.
 - **Ni-kshay Mitra** (Donor) are those who can support by adopting health facilities (for individual donor), blocks/urban wards/districts/states for accelerating response against TB to complement government efforts.
 - **Ni-kshay Digital Portal:** It will provide a platform for community support for persons with TB.

What are the other related**Initiatives Regarding Tuberculosis?**

- **Global Efforts:**
 - The **WHO (World Health Organisation)** has launched a joint initiative "Find. Treat. All. #EndTB" with the **Global Fund** and **Stop TB Partnership**.
 - WHO also releases the **Global Tuberculosis Report**.
- **India's Efforts:**
 - India's **National TB Elimination Programme** is strengthened to meet the goal of ending the TB epidemic by 2025 from the country, five years ahead of the **Sustainable Development Goals (SDG) for 2030**.
 - **National Strategic Plan (NSP)** for Tuberculosis Elimination (2017-2025), **The Nikshay Ecosystem** (National TB information system), **Nikshay Poshan Yojana (NPY- financial support)**, **TB Harega Desh Jeetega Campaign**.

- Currently, two vaccines **VPM (Vaccine Projekt Management) 1002** and **MIP (Mycobacterium Indicus Pranii)** have been developed and identified for TB, and are under **Phase-3 clinical trial**.
- **Ni-kshay Poshan Yojana:** It provides Rs 500 support through **direct benefit transfer to the patients**.
- **Ayushman Bharat Digital Health Mission:** The government has also focused on utilising technology and creating digital health IDs for TB patients under the **Ayushman Bharat Digital Health Mission** to ensure proper diagnostics and treatment are available.

Operation 'Gear Box'**Why in News?**

Recently, the Directorate of Revenue Intelligence (DRI) launched **operation 'Gear Box'** to stop heroin smuggling, seizes 39.5 kg of contraband from Kolkata port.

- The heroin was examined and seized under provisions of the **Narcotic Drugs and Psychotropic Substances Act**.

What is Operation Gear Box?

- Operation Gear Box is conducted to **detect the hidden drugs in the gear boxes**.
- The gears from old and used gearboxes were removed after opening them and plastic packets containing the narcotic substance were placed in the created cavity and the gearboxes were refitted to avoid detection.
 - The drug syndicate has used this unique modus operandi to conceal heroin.
- These packets were shipped concealing inside this metal scrap with other metal scrap so that it would go unnoticed by the authorities.

What about Drug Addiction in India?

- The menace of **drug addiction** has spread fast among the youth of India.
 - India is sandwiched between two largest Opium producing regions of the world that is the **Golden triangle on one side and the Golden crescent on other**.

Note:





- The golden triangle area comprises Thailand, Myanmar, Vietnam and Laos.
- The golden crescent area includes Pakistan, Afghanistan and Iran.
- According to the **World Drug Report 2022**, India is one of the world's single largest opiate markets in terms of users and would likely be vulnerable to increased supply.
- According to the **National Crime Records Bureau's Crime in India 2020** report, a total of 59,806 cases were lodged under NDPS Act.
- According to the Social Justice Ministry and **All India Institute of Medical Sciences (AIIMS)** report on magnitude of substance use in 2019, there were:
 - 3.1 crore cannabis users (of which 25 lakhs were dependent users).
 - 2.3 crore opioid users (of which 28 lakhs were dependent users).

What are the Other Related Initiatives?

- **Seizure Information Management System**
- **National Drug Abuse Survey**
- **NDPS Act, 1985**
- **Nasha Mukh Bharat**

What are the International Treaties and Conventions to Combat Drug Menace?

- India is signatory of the following International treaties and conventions to combat the menace of Drug Abuse:
 - **United Nations (UN) Convention on Narcotic Drugs (1961)**

- UN Convention on Psychotropic Substances (1971)
- **UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)**
- UN Convention against Transnational Organized Crime (UNTOC) 2000.

The Gender Snapshot 2022

Why in News?

Recently, the report entitled "**Progress on the Sustainable Development Goals (SDG): The Gender Snapshot 2022**" was launched by **United Nations (UN) Women and the UN Department of Economic and Social Affairs (UN DESA)**.

What are the Key Findings of the Report?

- The report highlighted that **Sustainable Development Goal-5 (SDG-5), or achieving gender equality, will not be met by 2030** at the current pace of progress.
- By the end of 2022, around 383 million women and girls will live in extreme poverty (on less than USD 1.90 a day) compared to 368 million men and boys.
- It will take close to **300 years to achieve full gender equality** at the current rate of progress.
 - It will also take at least **40 years to achieve equal representation of women in national parliaments**.
- **Progress must be 17 times faster than last decade's progress of the last decade, to eradicate child marriage by 2030.**
 - Girls from the poorest rural households and in conflict-affected areas are expected to suffer the most.
- In 2021, about **38% of female-headed households in war-affected areas experienced moderate or severe food insecurity**, compared to 20% of male-headed households.
- Globally, **women lost an estimated USD 800 billion in income in 2020 due to the pandemic**.
- **More women and girls are now forcibly displaced than ever before**, some 44 million women and girls by the end of 2021.
- Over **1.2 billion women and girls of reproductive age (15-49) live in countries and areas with some restrictions on access to safe abortion**.

Note:



What are the Challenges?

- Global challenges, such as the **COVID-19 pandemic** and its aftermath, violent conflict, **climate change** and the **backlash against women's sexual and reproductive health** and rights further **exacerbate gender disparities**.
- The **invasion of Ukraine** and the war, there is **further worsening food insecurity and hunger**, especially among women and children.
- In most parts of the World, **still legal systems don't ensure uniform protection of women rights in all spheres** such as denying women's rights in marriage and family, unequal pay and benefits at work and unequal rights to own and control land. Unfortunately, this may continue to exist for generations to come.

Corruption in Civil Service

Why in News?

The Prime Minister in his 76th Independence Day's address targeted **the twin challenges of corruption and nepotism** and raised the **urgent need to curb them**.

What is Corruption?

- Corruption is dishonest behavior by those in positions of power.
- Those who abuse their power may be individuals or they **may belong to organizations, such as businesses or governments**.
- **Corruption can entail a variety of actions**, including giving or accepting bribes or inappropriate gifts, double-dealing, and defrauding investors.
- India was ranked 85 among 180 countries in the **corruption perception index 2021**.

What are the Reasons for the Prevalence of Corruption in Civil Service?

- **Politicization of the Civil Service:** When civil service positions are **used as rewards for political support or swapped for bribes**, the opportunities for high levels of corruption increase significantly.
- **Lower Wages Compared to Private Sector:** Lowering wages for civil servants compared to those in the private sector.
 - Certain employees may resort to taking bribes in order to compensate for the difference in wages.
- **Administrative Delays:** Delays in the clearance of files are the root cause of corruption.
- **Colonial Legacy of Unchallenged Authority:** In a society which worships power, it is **easy for public officials to deviate from ethical conduct**.
- **Weak Enforcement of Law:** Various laws have been made to curb the evil of corruption but their **weak enforcement has acted as a hindrance in curbing corruption**.

What can be the impact of Corruption?

- **On People and Public Life:**
 - **Lack of Quality in Services:** In a system with corruption, **there is no quality of service**.
 - To demand quality, one might need to pay for it. This is seen in many areas like municipality, electricity, distribution of relief funds, etc.
 - **Lack of Proper Justice:** Corruption in the judiciary system **leads to improper justice**. And the victims of offense might suffer.
 - A crime **may be proved as a benefit of the doubt** due to a lack of evidence or even the evidence erased.
 - Due to corruption in the police system, **the investigation process has been going on for decades**.
 - **Poor Health and Hygiene:** In countries with more corruption, **one can notice more health problems among people**. There will be no fresh drinking water, proper roads, quality food grains supply, milk adulteration, etc.
 - These low-quality services are all done to save money by the contractors and the officials who are involved.

Note:

- **Failure of Genuine Research:** Research by individuals needs government funding and some of the funding agencies have corrupt officers.
 - These people sanction the funds for research to those investigators who are ready to bribe them.
- **On Society:**
 - **Disregard for Officials:** People **start disregarding the official involved in corruption** by talking negatively about him.
 - Disregard officials will also build distrust and even lower-grade officers will be disrespectful to higher-grade officers. So even he may not obey his orders.
 - **Lack of Respect for Rulers: Rulers of the nation like the president or prime ministers lose respect** among the public. Respect is the main criteria in social life.
 - People **go for voting during the election with the desire to improve their living standards** by the election winner and respect for the leader.
 - If the politicians are involved in corruption, people knowing this will lose respect for them and will not like to cast their vote for such politicians.
 - **Lack of Faith and Trust in Governments: People vote for a ruler based on their faith in him/her**, but if leaders are found to be involved in corruption, people lose faith in them and may not vote next time.
 - **Aversion for Joining the Posts Linked to Corruption:**
 - **Sincere, honest, and hardworking people develop an aversion** for the particular posts deemed corrupt.
 - Though they like those jobs, they tend not to opt for them as they believe that they also would have to be involved in corruption if they get into the post.
- **On Economy:**
 - **A Decrease in Foreign Investment:** Corruption in government bodies has **led to many foreign investments going back from developing countries.**
 - **Delay in Growth:** An official who needs to pass clearances for projects or industries delays the process in order to make money and other unlawful benefits. A work which can be done in a few days may be done in a month.

- This leads to **delays in investments, the starting of industries, and also growth.**
- **Lack of Development:** Many new industries willing to get started in a particular region change their plans if the region is unsuitable.
 - If there are no proper roads, water, and electricity, the companies do not wish to start up there, which hinders the economic progress of that region.

What are the Related Indian Initiatives?

- **The Indian Penal Code, 1860**
- **Prevention of Corruption Act, 1988**
- **The Prevention of Money Laundering Act, 2002**
- **The Foreign Contribution (Regulation) Act, 2010**
- **The Companies Act, 2013**
- **The Lokpal and Lokayuktas Act, 2013**
- **Central Vigilance Commission**

Ban on Conversion Therapy for the LGBTQIA+

Why in News?

The **National Medical Commission (NMC)**, has written to all State Medical Councils, banning conversion therapy of LGBTQIA+ Community and calling it a “**professional misconduct**”.

- The NMC by following a Madras High Court directive, said that conversion therapy is wrong, under the **Indian Medical Council (Professional Conduct, Etiquettes and Ethics) Regulations, 2002.**

What is LGBTQIA+?

- The LGBTQIA+ (lesbian, gay, bisexual, transgender, queer, intersex, asexual or of any other orientation) are the people **who don't identify with cisgender (sex assigned at birth) heterosexual “ideals”.**
 - The ‘plus’ is used to signify **all of the gender identities** and sexual orientations that **letters and words cannot yet fully describe.**
- In India, the LGBTQIA+ community also includes a specific social group, a distinct community: the Hijras.
- They are culturally defined either as “**neither men, nor women**”, or as **men who behave like a woman.**

Note:

- At present they are referred to as the **Third Gender**.
- Supreme Court, on 6th September 2018, decriminalised section 377[1], which **titled homosexual relations as “unnatural offences”**.

What is Conversion Therapy and Associated Risk?

- Conversion or reparative therapy is an **intervention aimed at changing the sexual orientation or gender identity** of an individual with the use of either **psychiatric treatment, drugs, exorcism (Evil Ceremonial Practices) and even violence**, with the aim being to **make the individual heterosexual (Attraction to Opposite Sex)**.
- It includes **efforts to change the core identity of youth** whose gender identity is incongruent with their sex anatomy.
- Often, the therapy is offered by quacks with little expertise in dealing with the issue.
- According to the American Academy of Child and Adolescent Psychiatry (AACAP), the interventions under conversion therapy are **provided under the false premise that homosexuality and diverse gender identities are pathological**.
- Conversion therapy **poses the risk of causing or exacerbating mental health conditions**, like anxiety, stress and drug use which sometimes even lead to suicide.

What are the Directives of Madras High Court?

- The Madras High court ruling **prohibited any attempt to medically “cure”** or change the sexual orientation of LGBTQIA+ (lesbian, gay, bisexual, transgender, queer, intersex, asexual or of any other orientation) people.
- It urged the authorities to **take action against professionals involving themselves in any form or method of conversion therapy**.
- The court gave an order to the National Medical Commission directing it to “issue necessary official notification by enlisting ‘**Conversion Therapy**’ as a **professional misconduct.**”

- The court said the **community should be provided with legal assistance by the District Legal Services Authority** in coordination with law enforcement agencies.
- Asking agencies to follow the **Transgender Persons (Protection of Rights) Rules, 2020**, and the **Transgender Persons (Protection of Rights) Act, 2019**, in letter and spirit, the court said it was imperative to hold sensitization programmes for an all-out effort to understand the community and its needs.

What are the Rulings for Safeguarding LGBTQIA+?

- **Naz Foundation vs. Govt. of NCT of Delhi (2009):**
 - Delhi High Court struck off section 377, legalising consensual homosexual activities between adults.
- **Suresh Kumar Koushal Case (2013):**
 - SC overturned the previous judgment by Delhi High Court (2009) arguing that “plight of sexual minorities” could not be used as an argument for deciding constitutionality of law.
- **Justice K.S. Puttaswamy vs. Union of India (2017):**
 - SC ruled that Fundamental Right to Privacy is intrinsic to life and liberty and thus, comes under Article 21 of the Indian constitution. It held that “sexual orientation is an essential attribute of privacy”.
- **Navtej Singh Johar vs. Union Of India (2018):**
 - Dismissed the position taken by SC in Suresh Kumar Koushal case (2013) and decriminalised homosexuality.
- **Shafin Jahan v. Asokan K.M. and others (2018):**
 - The Supreme Court observed that choice of a partner is a person’s fundamental right, and it can be a same-sex partner.
- **Transgender Persons (Protection of Rights) Act, 2019:**
 - An Act to provide for protection of rights of transgender persons and their welfare and for matters connected therewith and incidental thereto.
- **Same-sex Marriage:**
 - In February, 2021, the Central Government opposed same-sex marriage in Delhi High Court stating that a marriage in India can be recognised only if it is between a “biological man” and a “biological woman” capable of producing children.

Note:



Status of Social Protection in India

Why in News?

According to the latest report (**World Social Protection Report 2020-22: Regional companion report for Asia and the Pacific**) on social protection by the **International Labour Organisation (ILO)**, only 24.4% of Indians, even fewer than Bangladesh (28.4%), are under any sort of social protection benefit.

What is Social Protection?

Social protection systems help individuals and families, especially the poor and vulnerable, cope with crises and shocks, find jobs, improve productivity, invest in the health and education of their children, and protect the aging population.

What are the Key Highlights of the Report?

- **About:** The Report is a **companion to the ILO's 'World Social Protection Report 2020-22'**, that gives a regional overview of the social protection in the Asia and Pacific region.
- **Global:**
 - **Social Protection:** It notes that **Mongolia, New Zealand, Singapore and Australia have 100% social protection net**, while in **Myanmar and Cambodia**, the number stands **below 10%**.
 - **Lower Coverage:** As per the report, **three out of four workers in the Asia Pacific region are not protected** in the event of illness or injury sustained at work.
 - Countries with lower **Gross Domestic Product(GDP)** per capita tend to have low levels of work injury coverage for example, Afghanistan, India, Nepal and Pakistan cover fewer than 5% of their workers.
 - **Uneven Coverage:** According to the report, as of 2020, **only 46.9% of the global population was effectively covered by at least one social protection benefit**, while the remaining 53.1% as many as 4.1 billion people were left wholly unprotected.

- The report further notes that the large majority of the working-age population in the world 69.4%, or **4 billion people, are only partially protected or not protected at all.**

- **Gender Inequality:** Highlighting the inherent gender inequality in the social protection coverage, the report makes note women's coverage lag behind men's by a substantial 8% points.
- **Indian Perspective:**
 - **Low Investment in Social Protection:** The report notes that owing to the relatively **low investment in social protection i.e.**, only 24.4% of Indian population, the amounts transferred under **non-contributory benefits are usually too low** to provide adequate protection.
 - **Disparity in Coverage:** With **contributory schemes typically limited to those working in the formal sector** and non-contributory schemes still mostly targeted on the poorest, India's social security benefits are **lower than the 5% of GDP per capita (USD 2,277)**.
 - **Recent Initiatives:** It appreciated India's **higher coverage rate achieved through a combination of contributory and non-contributory schemes** through its progressive extension of coverage by combining different tiers of social protection such as the **Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGA)**, which offers a degree of protection for informal sector workers for up to 100 days.

What are the various Indian Government Initiatives Regarding Social Security?

- **Pradhan Mantri Shram Yogi Maan-Dhan Yojana (PM-SYM).**
- **National Pension Scheme for Traders and The Self-employed Persons (NPS).**
- Pradhan Mantri Jeevan Jyoti Yojana (PMJJBY).**
- **Pradhan Mantri Suraksha Bima Yojana (PMSBY).**
- **Atal Pension Yojana.**
- National Safai Karamcharis Finance and Development Corporation (NSKFDC).**
- **Self Employment Scheme for Rehabilitation of Manual Scavengers.**

Note:

What is International Labour Organisation (ILO)?

- It is the only tripartite **United Nation (UN) agency**. It brings together governments, employers and workers of 187 member States (India is a member), to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- Received the **Nobel Peace Prize in 1969**.
- **Established in 1919 by the Treaty of Versailles** as an affiliated agency of the **League of Nations**.
- Became the first affiliated specialized agency of the UN in 1946.
- **Headquarters:** Geneva, Switzerland.
- **Other Reports:**
 - Social Dialogue Report.
 - World Employment and Social Outlook: Trends
 - World Employment and Social Outlook
 - World Social Protection Report
 - Global Wage Report

Uniformed Forces and Mental Health

Why in News?

The **government needs to take immediate action** to address mental health issues in the uniformed services.

What are the Reasons for the Prevalence of Mental Health Issues in the Uniformed Forces?

- **Tightly Structured Hierarchy:**
 - **Uniformed forces are tightly structured** with a command-and-control hierarchy system.
 - A **senior officer is the reporting authority for his immediate junior** and this junior has to fulfil their tasks with manpower under his/her command.
 - The **hierarchy is rarely breached** and the system ensures discipline, clarity of roles and accountability.
 - However, **it tends to become inhuman**, especially to those who cannot communicate their personal issues in an appropriate forum.

Stress is not Addressed:

- Uniformed forces showing signs of **mental stress are not given enough attention**.
- Those who **express the problem are termed as weak** and are seen as shying away from the rigours of life.
- In a uniformed setup, **subordinate staff do not want to appear weak** as the “macho man” stereotype weighs them down.

Less Recognition for their Achievements:

- The **constabulary accounts for around 85% of state police** and CAPFs.
- These **personnel perform their duties** as directed by their seniors.
- They **mostly remain in the background of the organisation** with less recognition for their achievements and more frequent persecution for failure.

Tend towards Alcoholism:

- To cope with the difficulty of the types of setups, **personnel often resort to alcoholism and drug abuse**.
- In the latter cases, **defaulters are punished as per the law** and suitable departmental action is also taken.

What can be the impact of the Rising Mental Health issues among the forces?**Discourage Younger Generation:**

- Despite the good image that the armed forces have, and the fact that it is a very respectable job, **rising mental health issues among the forces can discourage the younger generations from joining**.

Demoralize the Forces:

- Increasing mental health issues among the forces can discourage them and negatively impact their daily operations.

Rising cases of Suicides:

- **Suicides, fratricides and untoward incidents are causing more Army personnel to lose their lives** than any enemy or terrorist activities, according to the findings of a study by United Service Institution of India (USI).

Note:



State of the World's Healthcare Facilities

Why in News?

According to the latest **Joint Monitoring Programme (JMP) report by World Health Organisation(WHO) and United Nations International Children's Emergency Fund(UNICEF)**, about half of the world's healthcare facilities lack basic hygiene services, putting 3.85 billion people at an increased risk of infections.

- The report was released during **World Water Week held in Stockholm, Sweden.**

What are the Key Highlights of the Report?

- **Lack of Basic Hygiene:**
 - About half of the world's healthcare facilities lack basic hygiene services, putting 3.85 billion people at an increased risk of infections.
 - These facilities **do not provide patients with water, soap, or alcohol-based hand rubs.**
 - **Only 51% of healthcare facilities met the requirements** for basic hygiene services.
 - **Some 68% of them provided facilities for handwashing with water and soap at restrooms** and 65% had such amenities at points of care.
 - Furthermore, **just one in 11 medical facilities worldwide has both.**
- **Lethal for Vulnerable Population:**
 - Hospitals and clinics without safe water and basic hygiene and sanitation services are a **potential death trap for pregnant mothers, newborns and children.**
- **Rise of Various Diseases:**
 - Every year, a **whopping 670,000 newborns lose their lives to sepsis.**
 - Sepsis is a potentially **life-threatening condition that occurs when the body's response to an infection damages its own tissues.**
- **Increased Disease Transmission:**
 - Unhygienic hands and environment significantly **influence disease transmission in healthcare facilities and the emergence of antibiotic resistance.**

- Only 53% of healthcare institutions in the least developed countries have access to a safe water supply.
 - The proportion for **eastern and south-eastern Asia is 90%, with hospitals performing better than smaller healthcare facilities.**
 - Some 11% of the rural and 3% of urban healthcare institutions lacked access to water.

What is the Importance of Hygiene Facilities?

- Hygiene facilities and practices in health care settings are non-negotiable.
- Their improvement is **essential to pandemic recovery, prevention and preparedness.**
- Promoting access to handwashing with water and soap and cleaning is essential for providing **high-quality health care**, especially for safe deliveries.

How Could the Issue be tackled?

- As the coverage of WASH facilities is still uneven across different regions and income groupings.
 - There is a need for countries to **implement their 2019 World Health Assembly commitment to strengthen water, sanitation and hygiene (WASH) services in health care facilities.**

What are the Indian Government Initiatives related to Water, Sanitation and Hygiene (WASH)?

- **Present Status:**
 - **Urban Centers Bear the Brunt:**
 - Nationally, **910 million citizens do not have access to proper sanitation.**
 - Despite urban centers housing the majority of India's population, urban sanitation is underfunded.
- **Initiatives:**
 - **Swachh Bharat's Toilet Access and Job Creation:**
 - It aims to **reduce open defecation in India.** Between 2018 and 2019, 93% of households had access to toilets, a noticeable jump from 77% in the previous year.

Note:

- The construction of the sanitation infrastructure is responsible for **employing more than 2 million full-time workers**.
- **Water in Rural Communities:**
 - Between 2017 and 2018, India's national water mission expanded to become the **National Rural Drinking Water Mission (NRDWM)**.
 - While other programs and departments address sanitation in urban centers, NRDWM **cares for the rural regions of India**.
 - One **goal is the institution of piped water supplies to rural households**.
 - **iJal Safe Water Stations:**
 - The Safe Water Network, a **nonprofit organization** created by Paul Newman, has reached communities through its iJal water stations.
 - The locally owned stations **provide access to clean, quality water in communities where water security is scarce**.
 - **WASH Allies:**
 - USAID and UNICEF work in cooperation with the Government of India.
 - As of September 2020, **USAID reported recent achievements**, including greater access to safe drinking water, more household toilets and a decrease in public defecation.



Note:

Science & Technology

Highlights

- Dark Sky Reserve in Ladakh
- WEST: A New I-STEM Initiative
- Anti-Radiation Pills
- National List of Essential Medicines (NLEM)
- Legionellosis Disease
- New branches of the National Centre for Disease Control
- Inflatable Aerodynamic Decelerator: ISRO
- Cyber Surakshit Bharat
- India & Quantum Computing
- CRISPR-Cas9 for Sickle-Cell Anaemia

Dark Sky Reserve in Ladakh

Why in News?

Recently, in a first-of-its-kind initiative, the **Department of Science & Technology (DST)** has announced the setting up of **India's first Dark Sky Reserve in Hanle, Ladakh.**

What is Dark Reserve?

- A Dark Sky Reserve is a **designation given to a place that** has policies in place to ensure that a tract of land or region **has minimal artificial light interference.**
- The International Dark Sky Association is a U.S.-based non-profit that **designates places as** International Dark Sky Places, Parks, Sanctuaries and Reserves, depending on the criteria they meet.

What are the Key Highlights of the Dark Reserve in Ladakh?

- **MoU for Setting up Dark Reserve:** There was a three-way Memorandum of Understanding was signed among the **Union Territory administration, Ladakh Autonomous Hill Development Council (LAHDC), Leh, and the Indian Institute of Astrophysics (IIA), Bengaluru,** which uses and maintains the telescopes, for launching the Dark Space Reserve.
 - It will have activities to help in boosting local tourism and the economy through interventions of science and technology.
- **Promote Tourism:** To promote **Astro-tourism,** villages around Hanle will be encouraged to promote homestays equipped with telescopes that visitors can use to view the night sky.

- Villagers and residents will also be **trained to help visitors with astronomical observations.**

- There will be delineators on roads like you do outside observatories. People can come, park, observe the sky and stay in homestays.

- **Wildlife Awareness:** A visitor centre would also be set up to inform people not only about astronomy but also about the **wildlife and plant life in the adjoining Changthang Wildlife Sanctuary.**

Why was Ladakh chosen for Setting up the Dark Reserve?

- **Cold Desert with Sparse Population:** The Indian Astronomical Observatory, the high-altitude station of IIA, is situated to the north of the Western Himalayas, at an altitude of 4,500 metres above mean sea level.
 - Located atop **Mt. Saraswati in the Nilamkhul Plain in the Hanle Valley of Changthang,** it is a **dry, cold desert** with a sparse human population and has the Hanle monastery as its nearest neighbour.
- **Clear Skies:** The cloudless skies and low atmospheric water vapour make it one of the best sites in the world for optical, infrared, sub-millimetre, and millimetre wavelengths.
- **Other Telescopes situated in Hanle Observatory:** The Himalayan Chandra Telescope (HCT), High Energy Gamma Ray telescope (HAGAR), the Major Atmospheric Cherenkov Experiment Telescope (MACE) and GROWTH-India are prominent telescopes located at the Hanle observatory.

Note:

WEST: A New I-STEM Initiative

Why in News?

Recently, a new **Indian Science Technology and Engineering facilities Map (I-STEM)** initiative called “**Women in Engineering, Science, and Technology (WEST)**” was launched.

What is WEST Initiative?

- The WEST programme will cater to **women with a Science, Technology, Engineering, and Mathematics (STEM) background** and empower them to **contribute to the science, technology, and innovation ecosystem**.
- Through the WEST initiative, I-STEM shall provide a **separate platform to scientifically inclined women researchers, scientists, and technologists for pursuing research** in basic or applied sciences in frontier areas of science and engineering.
- Women may join the WEST program and **explore opportunities to become stakeholders in various domains and pursue careers in R&D** at various levels: technicians, technologists, scientists, and entrepreneurs.
 - Opportunities range from operating scientific equipments and maintaining them, to designing and manufacturing them.
- The **Skill Development programmes** under the WEST initiative **will provide training for women with S&T backgrounds** to brush up on their abilities and become engaged “in the field” as lab technicians and maintenance engineers.
- The access to R&D facilities and R&D software platforms (COMSOL, MATLAB, LABVIEW, AUTOCAD) will be available through the I-STEM portal.
- In addition, a **digital consortium “Connect Quickly”** for online discussion and immediate support has also been established through the I-STEM WhatsApp and Telegram platforms.
- A **dedicated team of women** will ensure the successful implementation of the WEST initiative.

What is I-STEM?

- **About:**
 - I-STEM is a **National Web portal for sharing R&D (Research and Development) facilities**.
 - The portal **facilitates researchers to access slots for the use of equipment**, as well as to share the details of the outcomes, such as patents, publications and technologies.
- **Launch:**
 - Launched in January 2020. It is an initiative of the Office of the **Principal Scientific Adviser** to the Government of India under the aegis of **Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission**.
 - **PM-STIAC:** It is an overarching Council that facilitates the Principal Scientific Adviser’s Office to **assess the status in specific science and technology domains**, comprehend challenges in hand, formulate specific interventions, develop a futuristic roadmap and advise the Prime Minister accordingly.



What is the Significance of WEST?

- This initiative will also help **bring women back into S&T domains after a career break**.
- Crucial gaps in the R&D infrastructure of the country will be filled.
- **A strong support network for women entrepreneurs** in S&T will be built.
- I-STEM shall provide a platform/forum for women researchers to deliberate on achievements, issues, and **exchange ideas on taking the country forward through advances in science, technology, and innovation**.

Note:

- Women can become entrepreneurs to **serve as consultants for the operation and maintenance of sophisticated equipment/instruments** through the I-STEM platform.
- This would go a long way towards **filling a “skills gap”, and putting publicly-funded equipment to good use.**

Anti-Radiation Pills

Why in News?

With fears of a nuclear disaster at Ukraine’s Zaporizhzhia power plant growing, the **European Union** has decided to **pre-emptively supply 5.5 million Anti-Radiation Pills** to be distributed among residents in the vicinity.

What is a Radiation Emergency?

- These are **unplanned or accidental events** that create **radio-nuclear hazard to humans** and the environment.
- Such situations involve **radiation exposure from a radioactive source** and require prompt intervention to mitigate the threat.
- Dealing with such an emergency also involves the **use of anti-radiation tablets.**

What are Anti-Radiation Pills?

- Potassium Iodide (KI) tablets, or anti-radiation pills, are known to **provide some protection in cases of radiation exposure.**
- They contain **non-radioactive iodine and can help block absorption**, and subsequent concentration, of radioactive iodine in the thyroid gland.

How do these Pills Work?

- After a radiation leak, **radioactive iodine floats through the air and then contaminates food**, water and soil.
- Internal exposure, or irradiation, occurs **when radioactive iodine enters the body** and accumulates in the **thyroid** gland.
 - The thyroid gland, which uses iodine to produce hormones to regulate the body’s metabolism, has **no way of telling radioactive from non-radioactive iodine.**
- Potassium iodide (KI) tablets rely on this to **achieve ‘thyroid blocking’.**

- KI pills taken a few hours **before or soon after radiation exposure** ensure that non-radioactive iodine in the **medicine is absorbed quickly to make the thyroid “full”.**
- The thyroid becomes full and cannot absorb any more iodine – either stable or radioactive – for the next 24 hours.
- But KI pills are preventive **only and cannot reverse any damage** done by radiation to the thyroid gland.
- Once thyroid gland absorbs radioactive iodine, those exposed are at a high risk of developing thyroid cancer.

Is the method Fool-Proof?

- Anti-radiation pills do **not provide 100% protection.**
- The effectiveness of KI depends on **how much radioactive iodine gets into the body** and how quickly it is absorbed in the body.
- Also, the pills are not meant for everybody. They are **recommended for people under 40 years of age.**

National List of Essential Medicines (NLEM)


Why in News?

Recently, The Union Health Ministry launched the new **National List of Essential Medicines (NLEM)**, where 384 drugs have been included in this list with addition of 34 drugs, while 26 from the previous list have been dropped.

- As per the **World Health Organisation (WHO)**, Essential Medicines are those that satisfy the priority health care needs of the population.

DRUGS LIST GETS A REJIG

- ▶ **Four major anti-cancer drugs** – bendamustine hydrochloride (leukemia), irinotecan HCl trihydrate (pancreatic cancer), lenalidomide (multiple myeloma), and leuprolide acetate (prostate and uterine cancer) – added to NLEM 2022
- ▶ **Insulin glargine and anti-diabetic drug** teneligliptin also included
- ▶ **Patented drugs dolutegravir** (anti-HIV), daclatasvir (Hepatitis C), and bedaquiline and delamanid (anti-TB) also part of the list
- ▶ **Common gastrointestinal drug** ranitidine removed
- ▶ **Disinfectants like bleaching powder** also taken off the list



Note:

What is the National List of Essential Medicines (NLEM)?

➤ About:

- The National List of Essential Medicines (NLEM) is a list released by the **Ministry of Health and Family Welfare**.
 - The medicines listed in the NLEM are sold below a price ceiling fixed by the **National Pharmaceutical Pricing Authority (NPPA)**.
- In India, it was framed on the lines of the **Essential Medicines List (EML)** released by the WHO.

➤ History:

- The **Ministry of Health and Family Welfare** prepared and released the first National List of Essential Medicines of India in 1996 consisting of 279 medicines. This list was subsequently revised in 2003, 2011, 2015 and 2022.

➤ Purpose:

- Guide safe and effective treatment of priority disease conditions of a population.
- Promote the rational use of medicines.
- Optimize the available health resources of a country. It can also be a guiding document for:
 - State governments to prepare their list of essential medicines
 - Procurement and supply of medicines in the public sector.

What are the Criteria for a Medicine to be Included in NLEM?

- Several factors are looked at before including a drug in the NLEM. These are:
 - **Essentiality:** A medicine may be essential considering the population at large and should fit into the definition mentioned earlier.
 - **Changing disease burden:** With time, the disease burden keeps changing in the country. At one point, TB might be more important to tackle. At the next moment, another disease like Covid-19 may become more important. So, the prevalent disease is considered while preparing the list.
 - **Efficacy and Safety:** The medicine must have “unequivocal” evidence of efficacy and wider acceptance based on its safety to be included in the list.

- **Cost-Effectiveness:** The total price of the treatment must be considered while including the drug in NLEM. Only unit price may not be the best benchmark for this.
- **Fixed Dose Combinations (FDCs):** The single-dose medicines are considered for inclusion in NLEM. FDCs are only included if they have a proven advantage concerning the therapeutic effect.
- **Turnover:** High sales turnover alone is not considered a good benchmark for inclusion in the NLEM. Other factors are also required to be essentially considered for it.

When is a Medicine Deleted from NLEM?

- A drug is deleted from the list if it gets banned in India. Also, it is removed if reports of concerns about drug safety emerge.
- If medicine with better efficacy or favourable safety profile and better cost-effectiveness is now available, then it is removed from NLEM.

What is an Essential Medicine List (EML)?

➤ About:

- The list is made with consideration of disease **prevalence, efficacy, safety and comparative cost-effectiveness** of the medicines.
- Such medicines should be available in such a way that an individual or community can afford them.
- The WHO EML is updated every two years by the Expert Committee on Selection and Use of Essential Medicines.

➤ History:

- The first country in the world to compose its EML was Tanzania in 1970. Then in 1975, the **World Health Assembly (WHA)** requested WHO to assist member states in selecting and procuring essential medicines, assuring good quality at a reasonable cost.
- Subsequently, the **first WHO model list of essential medicines was published in the year 1977 which contained 186 medicines**.
- It stated that essential medicines were “of **utmost importance, basic, indispensable and necessary for the health and needs of the population**” and the criteria for selection were based on efficacy, safety, quality and total cost.

Note:

Legionellosis Disease

Why in News?

Recently, a mysterious pneumonia outbreak in Argentina has been identified as Legionellosis.

What is Legionellosis?

- **About:**
 - Legionellosis is a **pneumonia-like illness** that varies in severity from mild febrile illness to a serious and sometimes fatal form of pneumonia.
 - The causative agents are **Legionella bacteria** from water or potting mix.
- **Symptoms:**
 - It included **fever, muscle and abdominal pain and shortness of breath.**
- **Spread:**
 - The disease typically **spreads via inhalation of contaminated aerosols from contaminated water**, which could come from — air conditioning cooling towers, evaporative condensers associated with air conditioning and industrial cooling, hot and cold-water systems, humidifiers and whirlpool spas.
- **Risk Population:**
 - The people who have **comorbidities like hypertension, diabetes, obesity, respiratory problems, chronic obstructive pulmonary disease (COPD)**, or those who follow poor habits like smoking are more prone to the condition.
- **Treatment:**
 - Treatments exist, but there is **no vaccine currently available for Legionnaires' disease.**
 - Patients with Legionnaires' disease always require **antibiotic treatment following diagnosis.**
 - The public health threat posed by legionellosis can be addressed by implementing water safety plans by authorities responsible for building safety or water system safety.

New branches of the National Centre for Disease Control

Why in News?

Recently, the Union Health Minister virtually laid the foundation stone for **National Centre for Disease Control (NCDC)** branches in **Andhra Pradesh, Arunachal Pradesh, Kerala, Maharashtra, Tripura, and Uttar Pradesh.**

What is National Centre for Disease Control (NCDC)?

- **About:**
 - The National Centre for Disease Control (NCDC), formerly **National Institute of Communicable Diseases (NICD)**, had its origin as the Central Malaria Bureau, established at **Kasauli (Himachal Pradesh) in 1909.**
 - NICD was transformed into the **National Centre for Disease Control (NCDC)** with a larger mandate of controlling emerging and re-emerging diseases in 2009.
 - It is under the administrative control of the **Director General of Health Services, Ministry of Health and Family Welfare, Govt. of India.**
- **Function:** It functions as the **nodal agency in the country for disease surveillance facilitating the prevention** and control of communicable diseases.
 - In coordination with the State Governments, NCDC has the **capacity and capability for disease surveillance**, outbreak investigation, and rapid response to contain and combat outbreaks.
- **Services:** The Institute provides referral diagnostic services to individuals, communities, medical colleges, research institutions and state health directorates.
- **Headquarters:** The Institute has its headquarters in **Delhi.**
- **Branches:** It has **eight branches** located at Alwar (Rajasthan), Bengaluru (Karnataka), Kozikode (Kerala), Coonoor (Tamil Nadu), Jagdalpur (Chhattisgarh), Patna (Bihar), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

Note:

What are the Benefits of having multiple branches of NCDC?

- The regional branches of NCDC will play a **pivotal part and will provide a boost to public health infrastructure with prompt surveillance**, rapid detection and monitoring of diseases thereby enabling early interventions.
- The State branches will **coordinate with NCDC(Delhi)** with **real-time sharing of data and information** aided by cutting-edge technology.
 - Further, the NCDC branches would also be crucial in ensuring **the timely availability of updated guidelines**.
- New branches are being added with the mandate for integrated disease surveillance activities, dealing with **Anti-Microbial Resistance (AMR)**, multi-sectoral and entomological investigations etc.

Inflatable Aerodynamic Decelerator: ISRO

Why in News?

Recently, the **Indian Space Research Organisation (ISRO)** has successfully tested the **Inflatable Aerodynamic Decelerator (IAD)** technology that could aid cost-effective recovery of spent rocket stages and safely land payloads on other planets.



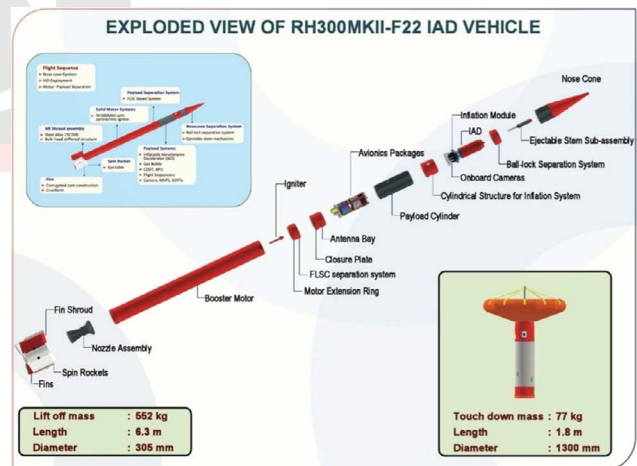
What is IAD?

- **About:**
 - The IAD is designed, developed and successfully test-flown by **ISRO's Vikram Sarabhai Space Centre (VSSC)**.
 - The IAD was successfully test flown in Rohini-300 (RH300 Mk II) sounding rocket from Thumba Equatorial Rocket Launching Station.
 - Rohini sounding rockets are routinely used for flight demonstration of new technologies being developed by ISRO as well as by scientists from India and abroad.

- The IAD serves to **decelerate an object plunging down** through the atmosphere.
- The IAD was initially folded and kept inside the payload bay of the rocket. At around 84 km altitude, the IAD was inflated and it descended through the atmosphere with the payload part of a sounding rocket.
- The IAD has systematically **reduced the velocity of the payload through aerodynamic drag** and followed the predicted trajectory.
 - The force on an object that resists its motion through a fluid is called **drag**. When the fluid is a gas like air, it is called **aerodynamic drag** or air resistance.

Significance:

- The IAD has huge potential in a variety of space applications like **recovery of spent stages of rocket, for landing payloads on to Mars or Venus** and in making space habitat for human space flight missions.



What is ISRO?

- ISRO is the space agency under the Department of Space of Government of India, headquartered in the **city of Bengaluru, Karnataka**.
- Its vision is to harness space technology for national development, while pursuing space science research and planetary exploration.
- **Antrix Corporation Limited (ACL)** is a Marketing arm of ISRO for promotion and commercial exploitation of space products, technical consultancy services and transfer of technologies developed by ISRO.
- **Shri S. Somanath** is the incumbent chairman of ISRO.

Note:

Cyber Surakshit Bharat

Why in News?

Recently, the **National e-Governance Division (NeGD)**, organised the 30th **Chief Information Security Officers (CISO) Deep-Dive training programme** at the Indian Institute of Public Administration (IIPA), New Delhi.

What is Cyber Surakshit Bharat?

➤ About:

- Cyber Surakshit Bharat initiative was conceptualized with the **mission to spread awareness about cyber-crime** and build capacities of **Chief Information Security Officers (CISOs) and frontline IT officials**, across all government departments.
- It was launched in 2018 by the **Ministry of Electronics and Information Technology (MeitY)**.
- The CISO training is the first-of-its-kind partnership between the Government and industry consortium under **Public Private Partnership (PPP) model**.

➤ Target Participants:

- Officers from Central and State/UT Governments and subordinate agencies/PSUs, including public sector Banks and Insurance companies, technical wings of police and security forces:
 - **Designated Chief Information Security Officers (CISOs)**,
 - **CTOs and Member of Technical/PMU teams, Officers** responsible to observe security of the IT systems in their respective organization.

○ Training:

- **NeGD, an arm of the Ministry of Electronics and IT**, will provide logistic support in arranging the training programmes, whereas the industry consortium will provide technical support for the training.
- The training partners from the industry are **Microsoft, IBM, Intel, Palo Alto Networks, E&Y, and Dell-EMC**. **NIC, CERT-In, and CDAC** are knowledge partners from the Government side.

➤ Objectives:

- It aimed at educating and enabling CISOs to understand cyber-attacks comprehensively and thoroughly, get necessary exposure in latest

technologies of safeguard, and translate the benefits of a resilient e-infrastructure to individual organizations and citizens at large.

- Create awareness on the emerging landscape of cyber threats.
- Provide in-depth understanding of related solutions.
- Applicable frameworks, guidelines & policies related to cyber security.
- Share best practices to learn from success & failures.
- Provide key inputs to take informed decisions on Cyber Security related issues in their respective functional area.

India & Quantum Computing

Why in News?

According to a study by IBM, **India is witnessing a growing interest in quantum computing**, with students, developers, and academia actively participating. Consequently, the country is **emerging as a talent hub for quantum computing**.

What is Quantum Computing?

➤ About:

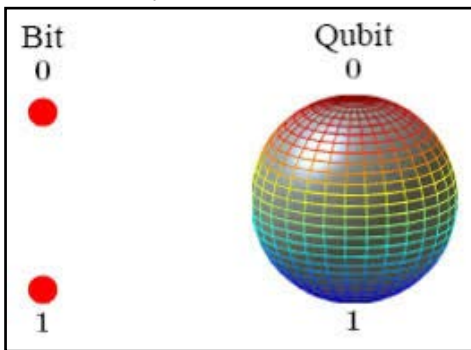
- Quantum computing is a **rapidly-emerging technology that harnesses the laws of quantum mechanics** to solve problems too complex for classical computers.
 - Quantum mechanics is a subfield of physics that describes the behavior of particles — atoms, electrons, photons, and almost everything in the molecular and submolecular realm.
- It is an exciting **new technology that will shape our world tomorrow** by providing us with an edge and a myriad of possibilities.
- It is a fundamentally **different way of processing information** compared to today's classical computing systems.

➤ Features:

- **Different from Traditional Computers:**
 - While today's **classical computers store information as binary 0 and 1 states**, **quantum computers** draw on the fundamental laws of nature to **carry out calculations using quantum bits**.

Note:

- Unlike a bit that has to be a 0 or a 1, a **qubit can be in a combination of states**, which allows for exponentially larger calculations and **gives them the potential to solve complex problems** which even the most powerful classical supercomputers are not capable of.



- **Significance:**
 - Quantum computers can tap into the quantum mechanical phenomenon to **manipulate information and are expected to shed light on processes of molecular and chemical interactions**, address difficult optimization problems, and boost the power of artificial intelligence.
 - These could **open the door to new scientific discoveries**, life-saving drugs, and improvements in supply chains, logistics and the modelling of financial data.

What are IBM India's Initiatives around Quantum Computing?

- **Qiskit Challenge:** Qiskit is an **open-source software development kit** built by IBM for the quantum developer community.
- **Qiskit India Week of Quantum:** IBM regularly organizes India-focused programmes such as Qiskit India Week of Quantum, which **celebrated women in quantum to kickstart their journeys in quantum**, and was attended by almost 300 students.
- **The Qiskit Textbook:** Qiskit textbook is available in Tamil, Bengali and Hindi and was accessed more than 30,000 times by students in India in 2021 alone.
- **IBM Quantum Educators Programme:** IBM is **collaborating with leading educational institutions in India** through the IBM Quantum Educators Programme.
 - The faculty and students of these institutions will be able to **access IBM Quantum systems, quantum learning resources and quantum tools** over IBM Cloud for educational purposes.

What are the Key Initiatives taken by the Indian Government?

- **National Mission on quantum technologies and applications:** The Government in its 2021 budget allocated INR 8000 Crore towards the **National Mission on quantum technologies and applications** to spur developments in quantum computing, cryptography, communications, and material science.
- **Quantum Computing Laboratory:** In December 2021, the Indian Army set up a **quantum computing laboratory** and an AI centre at a military engineering institute at Mhow, Madhya Pradesh. It is also backed by the **National Security Council Secretariat (NSCS)**.
- **Quantum Communication Lab:** The **Centre for Development of Telematics (C-DOT)** launched a **quantum communication lab** in October 2021. It can support more than 100 km of standard optical fibre.
- **Collaborations:** The **Defence Institute of Advanced Technology (DIAT)** and the **Centre for Development of Advanced Computing (C-DAC)** agreed to collaborate and develop quantum computers.
- **I-HUB Quantum Technology Foundation:** The Department of Science and Technology and about 13 research groups from IISER Pune launched **I-HUB Quantum Technology Foundation (I-HUB QTF)** to further enhance the development of quantum tech.
- **Startups:** A number of Start-Ups such as **Qunu Labs, Bangalore; BosonQ, Bhilai** have also emerged and as a result, they are making inroads in this area.

CRISPR-Cas9 for Sickle-Cell Anaemia

Why in News?

India approved a 5-year project to **develop Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) to cure sickle cell anaemia** in 2021.

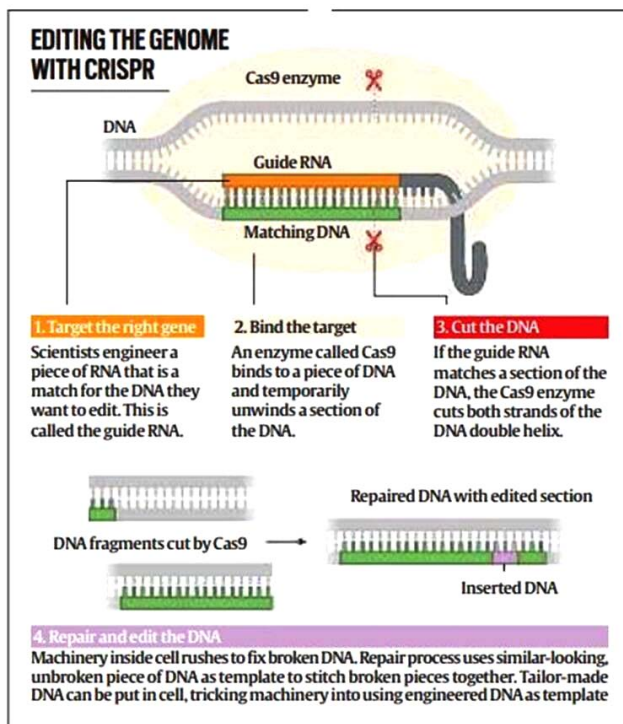
- Sickle cell anaemia is the **first disease that is being targeted for CRISPR-based therapy in India**.
 - The pre-clinical phase (trials on animal subjects) is about to begin.

Note:

What is CRISPR Technology?

➤ About:

- **Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)** is a **gene editing technology**, which replicates natural defence mechanism in bacteria to fight virus attacks, using a special protein called Cas9.
- It usually involves the **introduction of a new gene, or suppression of an existing gene**, through a process described as **genetic engineering**.
 - CRISPR technology **does not involve the introduction of any new gene from the outside**.
- **CRISPR-Cas9 technology** is often described as 'Genetic Scissors'.
 - Its mechanism is often compared to the 'cut-copy-paste', or 'find-replace' functionalities in common computer programmes.
 - A **bad stretch** in the DNA sequence, which is the cause of disease or disorder, is **located, cut, and removed and then replaced with a 'correct' sequence**.
 - The tools used to achieve this are biochemical i.e., specific protein and RNA molecules.
- The technology replicates a natural defence mechanism in some bacteria that uses a similar method to **protect itself from virus attacks**.



➤ Mechanism:

- The first task is to **identify the particular sequence of genes that is the cause of the trouble**.
- Once that is done, an **RNA molecule is programmed to locate this sequence on the DNA strand**, just like the 'find' or 'search' function on a computer.
- After this **Cas9 is used to break the DNA strand at specific points, and remove the bad sequence**.
- A DNA strand, when broken, has a **natural tendency to re-attach and heal itself**. But if the auto-repair mechanism is allowed to continue, the bad sequence can regrow.
 - So, **scientists intervene during the auto-repair process by supplying the correct sequence of genetic codes**, which attaches to the broken DNA strand.
 - It is like cutting out the damaged part of a long zipper, and replacing it with a normally functioning part.
- The **entire process is programmable**, and has remarkable efficiency, though **the chances of error are not entirely ruled out**.

What is the Significance of CRISPR-based Therapeutic Solutions?

- **Specific Treatment:** CRISPR aids in the disease treatment by **correcting the underlying genetic problem**. CRISPR-based therapeutic solutions are not in the form of a pill or drug. Instead, **some cells of every patient are extracted, the genes are edited in the laboratory, and the corrected genes are then re-injected into the patients**.
- **What is to be edited, and where, is different in different cases. Therefore, a specific solution needs to be devised for every disease or disorder that is to be corrected.**
 - The solutions could be **specific to particular population or racial groups**, since these are also dependent on genes.
 - The changes in genetic sequences remain with the individual and are not passed on to the offspring.
- **Permanent Cure of Genetic Diseases/Anomalies:** A vast number of diseases and disorders are genetic in nature i.e.; they are caused by unwanted changes or mutations in genes.

Note:

- These include common blood disorders like **sickle cell anaemia, eye diseases including colour blindness, several types of cancer, diabetes, HIV, and liver and heart diseases**. Many of these are hereditary as well.
- CRISPR opens up the possibility of finding a **permanent cure for many of these diseases**.
- Deformities like **stunted or slow growth, speech disorders, or inability to stand or walk** arise out of abnormalities in gene sequences.
 - CRISPR presents a **potential treatment** for the cure of such abnormalities as well.

What is the Related Ethical Dilemma?

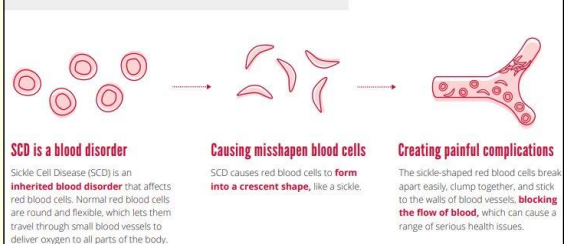
- CRISPR's power to **induce dramatic changes in an individual** which can be potentially misused.
 - In 2018, a **Chinese researcher** disclosed that he had CRISPR aids in the disease treatment by **correcting the underlying genetic problem**.
 - This was the **first documented case of creating a 'designer baby'**, and it **caused widespread concern in the scientific community**.
 - Preventive interventions to **obtain special traits is not something that scientists currently want the technology to be used for**.
 - Also, because the changes were made in the embryo itself, the **new acquired traits were likely to be passed on to future generations**.
 - Though the technology is fairly accurate, it is **not 100% precise, and could induce a few errors as well, making changes in other genes**. This has the **possibility of being inherited by successive generations**.

What is Sickle Cell Anaemia?

➤ About:

- It is an **inherited blood disease** which is most common among people of African, Arabian and Indian origin.
- It is a group of disorders that **affects hemoglobin, the molecule in red blood cells that delivers oxygen to cells throughout the body**.
- People with this disease have **atypical hemoglobin molecules called hemoglobin S**, which can **distort red blood cells into a sickle, or crescent shape**.
 - This **blocks blood flow and oxygen** from reaching all parts of the body.

What is Sickle Cell Disease?



➤ Symptoms:

- It can cause severe pain, referred to as **sickle cell crises**.
- Over time, people with sickle cell disorders can experience **damage to organs including the liver, kidney, lungs, heart and spleen**. Death can also result from complications of the disorder.

➤ Treatment:

- Medication, blood transfusions and rarely a bone-marrow transplant.



Note:

Environment & Ecology

Highlights

- International Day of Clean Air for Blue Skies
- Cloud Seeding
- Extension of Sulfur Dioxide Emission Norms
- Sea Turtle Poaching
- Climate Reparation
- India's Climate Pledges
- Hydrogen Fuel Cell
- Plea on Western Ghats
- Biosphere Reserves in India

International Day of Clean Air for Blue Skies

Why in News?

Recently, the Ministry of Environment, Forest and Climate Change (MoEF&C) organized **3rd International Day of Clean Air for blue skies** as 'Swachh Vayu Diwas ("Swachh Vayu Neel Gagan")' today to raise awareness and facilitate actions to improve **air quality under National Clean Air Programme (NCAP)**.

- 20 cities selected out of 131 for its **National Clean Air Programme (NCAP)** have attained the **National Ambient Air Quality Standards** (60 microgram per cubic meter) in 2021-22, compared to their 2017 levels.

What are the Key Points?

- **Theme:**
 - The theme is "The Air We Share".
 - It highlights the **need for immediate and strategic international and regional cooperation for more efficient implementation** of mitigation policies and actions to tackle air pollution.
- **About:**
 - During its **74th session**, the **United Nations General Assembly** adopted a resolution to hold an **International Day of Clean Air for Blue Skies on 19th December, 2019**.
 - The resolution also encouraged the **United Nations Environment Programme (UNEP)** to facilitate the day's observance in collaboration with other relevant stakeholders.

- In the lead-up to the passing of the resolution, the Climate and Clean Air Coalition collaborated with UNEP and the Republic of Korea to advocate for the day.

➤ Significance:

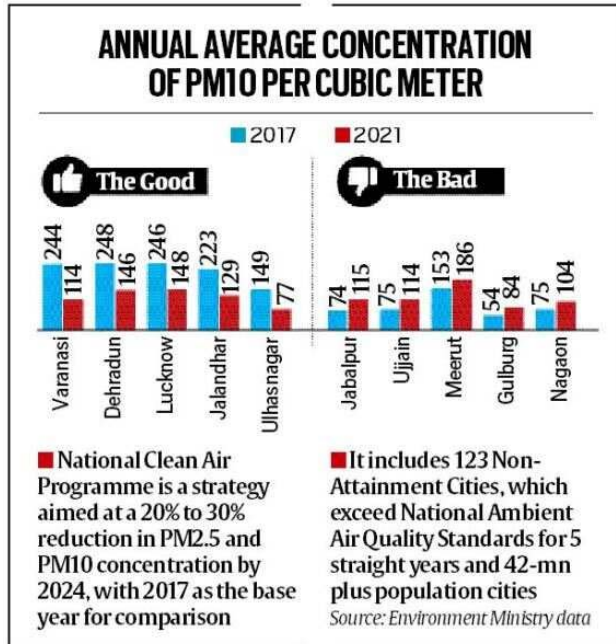
- The United Nations commemorates the International Day of Clear Air for Blue Skies by hosting summits with member states.
- Attendees put forth **their perspectives and discuss the data on the impacts of air pollution** and air quality around the globe.

What are the Findings of NCAP?

- **Ninety-five of these 131 cities have shown air quality improvement,**
 - Varanasi recorded the most marked improvement — of 53% — in air quality levels.
 - Varanasi had an **annual average concentration of PM10 of 244 in 2017**, which dropped to 144 in 2021.
- **PM10** for all metropolitan cities, **Delhi, Bengaluru, Mumbai, Chennai, Kolkata and Hyderabad**, have **shown significant improvement** in air quality in 2021-22 compared to 2017.
 - Other major cities to have shown an improvement include Noida, Chandigarh, Navi Mumbai, Pune, Guwahati, etc.
- But **27 cities** have shown a **deterioration in air quality over the same period.**
 - Among them is **Korba — the district in Chhattisgarh** houses 10 thermal coal power plants.

Note:

- Among states, Madhya Pradesh has been the poorest performer, as six of seven cities from the state selected by the Centre for NCAP have shown a **deterioration in air quality**.
 - These are Bhopal, Dewas, Indore, Jabalpur, Sagar, Ujjain and Gwalior.
- **Howrah and Durgapur in West Bengal**, Aurangabad and Thane in Maharashtra, Gaya in Bihar, Rajkot and Vadodara in Gujarat, Bhubaneswar (Odisha), Patiala (Punjab) and Jammu, among others, have also shown a worsening of air quality.



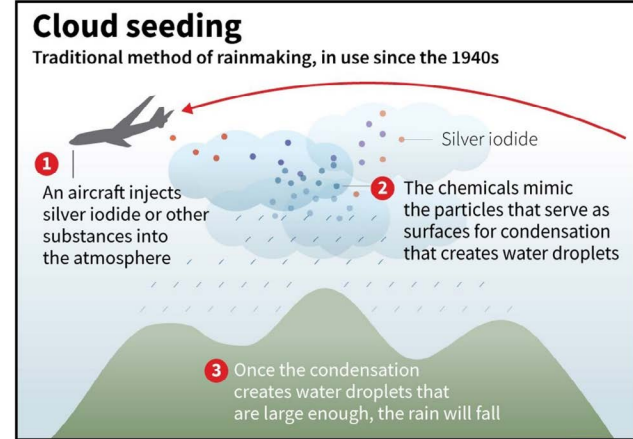
Cloud Seeding

Why in News?

Recently, the United Arab Emirates (UAE) which is located in **one of the hottest and driest regions on earth**, has been leading the effort to **seed clouds and increase precipitation**, which remains at less than 100 millimetres a year on average.

- UAE combined **shooting water-attracting salt flares with releasing salt nanoparticles**, a newer technology, into the clouds to **stimulate and accelerate the condensation process** and hopefully produce droplets big enough to then fall as rain.

What is Cloud Seeding?



About:

- Cloud seeding is the process of **spreading either dry ice or more commonly, silver iodide aerosols**, into the upper part of clouds to try to **stimulate the precipitation process** and form rain.
- Cloud seeding uses **planes to spray clouds with chemicals** to condense smaller particles into larger rain droplets.
- Cloud seeding **increases rainfall rates** by approximately 10% to 30% per year and cloud seeding operations **cost much less than the desalination process**.

Cloud Seeding Methods:

- **Hygroscopic Cloud Seeding:**
 - Disperses salts through flares or explosives in the lower portions of clouds. The salt grows in size as water joins with them.
- **Static Cloud Seeding:**
 - It involves spreading a **chemical like silver iodide into clouds**. The silver iodide provides a crystal around which moisture can condense.
 - The moisture is already present in the clouds, but silver iodide essentially makes rain clouds more effective at dispensing their water.
- **Dynamic Cloud Seeding:**
 - It aims to boost vertical air currents, which encourages more water to pass through the clouds, translating into more rain.
 - The process is considered more complex than static cloud seeding because it depends on a sequence of events working properly.

Note:

- **Applications of Cloud Seeding:**
 - **Agriculture:**
 - It creates rain, providing relief to **drought-stricken areas**.
 - E.g.: ‘Project Varshadhari’ in Karnataka in 2017.
 - **Power Generation:**
 - Cloud seeding experiments have shown to augment production of **hydroelectricity** during the last 40 years in Tasmania, Australia.
 - **Water Pollution Control:**
 - Cloud seeding can help to **maintain minimum summer flows** of the rivers and **dilute the impact of treated wastewater** discharges from municipalities and industries.
 - **Fog Dispersal, Hail Suppression, and Cyclone Modification:**
 - During the winter the cloud seeding programme is used to **increase the mountain snowpack** so that additional runoff is received during the spring melt season.
 - “Project Sky Water” of the U.S.A. in 1962 for **weather modification through cloud seeding** aimed at fog dispersal, hail suppression, and cyclone modification.
 - **Tackle Air Pollution:**
 - Cloud seeding can potentially be used to **settle down toxic air pollutants** through the rain.
 - E.g.: Recently, the **Central Pollution Control Board** along with other researchers mulled the **use of cloud seeding to tackle Delhi’s air pollution**.
 - **Tourism:**
 - Cloud seeding can transform **typically dry areas much more hospitable to enhance tourism**.

What are the Challenges involved in Cloud Seeding?

- **Potential Side-effects:**
 - The chemicals used in cloud seeding might be **potentially harmful to plants, animals, and people, or the environment**.
- **Abnormal Weather Patterns:**
 - It might ultimately change climatic patterns on the planet. Places that normally receive moisture might

start experiencing drought due to the artificial process of adding chemicals to the atmosphere to stimulate rain.

- **Costly:**
 - It involves processes such as delivering chemicals to the sky and releasing them into the air by flare shots or airplanes, which involves huge costs and logistic preparation.
- **Pollution:**
 - As artificial rain falls, seeding agents like silver iodide, dry ice or salt will also fall. **Residual silver discovered in places near cloud-seeding projects is considered toxic**. As for dry ice, it can also be a **source of greenhouse gas** that contributes to **global warming**, as it is basically carbon dioxide.

Extension of Sulfur Dioxide Emission Norms

Why in News?

The Ministry of Power (MoP) has extended the deadline for **coal-fired power plants to install Flue Gas Desulphurisation (FGD)** to cut sulphur emissions by two years.

What is the Background?

- India had initially set a **2017 deadline for thermal power plants to install FGD** units to cut Sulphur emissions.
 - Removal of Sulfur Dioxide is called **Flue-gas Desulphurization (FGD)**.
 - It seeks to remove gaseous pollutants viz. SO₂ from exhaust flue gases generated in furnaces, boilers, and other industrial processes due to thermal processing, treatment, and combustion.
- The deadline was later changed to **varying deadlines for different regions, ending in 2022**, and further extended last year to **a period ending 2025**.
- Power plants will be forcibly retired if they do not comply to norms on sulphur emissions by end-2027.
- Plants near populous regions and the capital New Delhi will have to pay penalties to operate from end-2024, while utilities in less polluting areas **will be penalized after end-2026**.

Note:

- Higher costs, lack of funds, Covid-19 related delays and geopolitical tension with China, which has restricted trade, are cited as the reasons for the extension.

Why is the installation of FGD Units Important?

- Indian cities have some of the world's most polluted air. India currently emits almost **twice the amount of SO₂ than** the next highest country, **Russia**.
- Thermal utilities, which produce 75% of the country's power, account for some 80% of industrial emissions of sulphur and nitrous-oxides, **which cause lung diseases, acid rain and smog**.
- Every single day delay in implementation of prescribed norms and not installing the FGD system is causing **huge health and economic damage to our society**.
- The high levels of damaging SO₂ pollution in India are avoidable much sooner as flue-gas desulphurisation systems have proved successful in reducing emission levels in China, the country responsible for the highest level in 2005.

What is Sulfur Dioxide Pollution?

- **Source:**
 - The largest source of SO₂ in the atmosphere is the **burning of fossil fuels by power plants** and other industrial facilities.
 - Smaller sources of SO₂ emissions include: **industrial processes** such as extracting metal from ore, natural sources such as **volcanoes, and locomotives**, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content.
- **Impact: SO₂ can affect both health and the environment.**
 - Short-term exposures to SO₂ can **harm the human respiratory system** and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO₂.
 - WHO has estimated that it causes **4.2 million deaths globally per year**.
 - SO₂ emissions that lead to high concentrations of SO₂ in the air generally also lead to the formation of other sulfur oxides (SO_x). SO_x can react with other compounds in the atmosphere to form small particles. These particles contribute to **Particulate Matter (PM) pollution**.

- Small particles may penetrate deeply into the lungs and in sufficient quantities can contribute to health problems.

- It can also **cause acid rain** which leads to widespread environmental damage.

➤ **India's Case:**

- India's sulphur dioxide (SO₂) emissions recorded a significant decline of approximately 6% in 2019 compared to 2018, the steepest drop in four years, according to a report from **Greenpeace India and the Centre for Research on Energy and Clean Air (CREA)**.
 - However, India remained the largest emitter of SO₂.
- **Air Quality sub-index** has been evolved for eight pollutants (PM10, PM2.5, NO₂, SO₂, CO, O₃, NH₃, and Pb) for which short-term (upto 24-hours) National Ambient Air Quality Standards are prescribed.

Sea Turtle Poaching

Why in News?

According to a new study, **more than 1.1 million sea turtles have been illegally killed** and, in some cases, trafficked from 1990 to 2020.

- The sea turtle species that faced the most exploitation in the 30-year-period were Green (56%) and Hawksbill Sea Turtles (39%).



What are the Key Highlights of the Study?

- **Marginal Decline in Poaching:** There has been a decline of 28% in the poaching of marine creatures, with over 44,000 turtles targeted annually over the last decade.

Note:

- **Exploitation:** The reptiles faced exploitation in 65 countries/territories and 44 marine **turtle regional management units (RMU)** in the world despite various protection laws.
- **Illegal Trade of Species:** Southeast Asia and Madagascar were major hotspots for illegal sea turtle trade, particularly for the **critically endangered Hawksbills**.
 - **Vietnam** was the most common country of origin for illegal sea turtle trafficking, while China and Japan served as destinations for nearly all trafficked sea turtle products.
 - They are slaughtered for their eggs, meat, skin, and shell and they also face habitat destruction and accidental capture or bycatch in fishing gear.
- **Effects of Climate change:** The **Climate change** has an impact on turtle nesting sites — it alters sand temperatures, which affects the sex of hatchlings.
 - Because incubation temperature of turtle eggs determines the animal's sex, a warmer nest results in more females. Increasing temperatures in Queensland's north, (Australia), linked to climate change, have led to virtually **no male Green Sea turtles being born**.
- **Initiatives:**
 - **Global:** In 2017, residents in eastern Indonesia's Maluku Province harvested up to 75% of leatherback turtle eggs laid on one turtle nesting beach.
 - Education and community outreach done by organisations like the non-governmental organisation **World Wide Fund** has helped in reducing turtle egg harvesting by 10%.
 - **Indian:** There are plans to tag 30,000 **Olive Ridley turtles in Odisha**, it will help scientists study them and draft conservation plans.

What do We Need to Know about Sea Turtles?

- **About:**
 - Sea turtles are **marine reptiles with streamlined bodies** and large flippers that are well-adapted to life in the ocean.
 - The sea turtle family includes the **Hawksbill, Loggerhead, Leatherback, Green and Olive ridley turtle**.
 - These five species are found worldwide, mainly in tropical and subtropical waters.

- Other than the five species, there are **two more types of sea turtles** that have restricted ranges.
 - **Kemp's Ridley** is found mainly in the Gulf of Mexico and the **Flatback Turtle** around northern Australia and southern Papua New Guinea.
- **Conservation Status:**
 - **The International Union for Conservation of Nature (IUCN) Status:**
 - Flatback Turtle: Data Deficient
 - Green Turtle: **Endangered**
 - Hawksbill Turtle: **Critically Endangered**
 - Kemp's Ridley: **Critically Endangered**
 - Loggerhead Turtle: **Vulnerable**
 - **Olive Ridley: Vulnerable**
 - Leatherback Turtle: **Vulnerable**
 - **The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) status:**
 - All seven species of sea turtles are currently listed as **Appendix- I** under CITES.

Climate Reparation

Why in News?

Recently, Pakistan is witnessing the **worst flooding disaster in its history**, therefore it has begun **demanding reparations, or compensation**, from the rich countries that are mainly responsible for causing climate change.

What is Climate Reparation?

- Climate reparations refer to a **call for money to be paid by the developed countries to the developing countries** as a means of addressing the historical contributions that the Developed countries have made (and continue to make) toward climate change.

Who is Responsible for Climate Change?

- **Historical Emissions:** **Historical responsibility of the Western nations** is important because carbon dioxide remains in the atmosphere for hundreds of years, and it is the **cumulative accumulation of this carbon dioxide that causes global warming**.

Note:

- **Polluter Pays Principle:** The concept of the **Polluter Pays principle** makes the polluter liable for paying not just for the cost of remedial action, but also for compensating the victims of environmental damage caused by their actions.
 - The **United States and the European Union**, including the UK, account for **over 50% of all emissions** during the present time.
 - If **Russia, Canada, Japan, and Australia** too are included, the combined contribution goes past **65% or almost two-thirds of all emissions**.
 - Further, a country like India, currently the **third largest emitter, accounts for only 3% of historical emissions**. Whereas, China, which is the world's **biggest emitter for over 15 years now, has contributed about 11% to total emissions since 1850**.
- **Global Impact:** The impacts of climate change are **much more severe on the poorer nations** because of their geographical locations and weaker capacity to cope.
 - This is what is giving rise to demands for loss and damage compensation, countries that have had **negligible contributions to historical emissions and have severe limitations of resources** are the ones that face the most devastating impacts of climate change.
- **Impact on India:** The economic loss from **cyclone Amphan in India and Bangladesh in 2020** has been assessed at **USD 15 billion**.

What did the International Conventions say about Climate Responsibility?

- **Admission of Responsibility:** The **UN Framework Convention on Climate Change (UNFCCC)**, the 1994 international agreement that **lays down the broad principles of the global effort** to fight climate change, explicitly acknowledges this **differentiated responsibility of nations**.
 - It makes it very clear that **rich countries must provide both finance and technology** to developing nations to help them tackle climate change.
 - The rich countries agreed to provide USD 100 billion to the developing world every year as a result of this mandate.

- **Present Status:** The promise of USD 100 billion in assistance to developing countries is yet to be completed.
 - According to a recent report by the **UN Office for the Coordination of Humanitarian Efforts (UNOCHA)**, prepared for the **UN General Assembly**, annual funding requests related to **climate-linked disasters averaged USD 15.5 billion in the three-year period between 2019 and 2021**.
 - The United States alone is estimated to have “inflicted more than USD 1.9 trillion in damages to other countries” due to its emissions.
 - **Non-Economic Losses:** There are non-economic losses, including **loss of lives, displacement and migration, health impacts, and damage to cultural heritage**.
 - **Economic Losses:** The unavoidable annual economic losses from climate change were projected to reach somewhere between USD 290 billion to USD 580 billion by the year 2030.
- **Initiatives:** The **developing countries and NGOs** managed to establish a separate channel for loss and damages at international climate change negotiations.
 - Therefore, the **Warsaw International Mechanism (WIM) for Loss and Damages**, set up in 2013, was the first formal acknowledgment of the need to compensate developing countries struck by climate disasters.

India's Climate Pledges

Why in News?

Recently, a study has ranked **India's updated climate pledge to the Paris Agreement fifth in compliance and fourth in ambition**.

INDIA'S CLIMATE TARGETS: EXISTING AND NEW			
Target (for 2030)	Existing: First NDC (2015)	New: Updated NDC (2022)	Progress
Emission intensity reduction	33-35 per cent from 2005 levels	45 per cent from 2005 levels	24 per cent reduction achieved in 2016 itself. Estimated to have reached 30 per cent
Share of non-fossil fuels in installed electricity capacity	40 per cent	50 per cent	41.5 per cent achieved by the end of June this year
Carbon sink	Creation of 2.5 to 3 billion tonnes of additional sink through afforestation	Same as earlier	Not clear.

Note:

What are the Key Highlights of the Study?

➤ About:

- The study was published in the scientific journal **Nature Climate Change**.
- It included eight countries — **India, the US, China, Australia, Saudi Arabia, Russia, Australia and Brazil** — and the **European Union**.
- Nearly all signatories to the **Paris Agreement** updated their climate commitments during the 26th session of the **United Nations Conference on Climate Change (COP 26)**.

➤ Outcomes:

- **European Union (EU)** took the lead while the United States was ranked last in compliance and second to last in ambition.
 - **Compliance:** In the compliance category, the EU took the lead which was followed by China, Australia, South Africa, India, Russia, Saudi Arabia, Brazil and the US.
- **Ambition:**
 - In the Ambition category, the EU was followed by China, South Africa, India, Australia, Brazil, Russia, the United States and Saudi Arabia.

➤ Parameters:

- Nations likely to meet their climate pledges or the **Nationally Determined Contributions (NDC)** were ranked high in compliance.
 - The countries with bold commitments were ranked high in ambition.

➤ Statistical Analysis:

- Nations with more **stable governments are more likely to have bold and highly credible pledges**.
- Besides, China and other **non-democracies are also likely to honour their commitments**.
 - Their administrative and political systems enable them to implement complex national policies.

➤ India's Performance:

- It has been ranked fifth in compliance and fourth in ambition.

What is the Paris Agreement?

➤ About:

- The Paris Agreement (also known as the **Conference of Parties 21 or COP 21**) was **adopted in 2015**.

- It replaced the **Kyoto Protocol** which was an earlier agreement to deal with climate change.
- It is a global treaty wherein some 200 countries agreed to cooperate to **reduce Green House Gas (GHG) Emissions and rein in climate change**.
 - It seeks to limit global warming to well below **2°C, preferably to 1.5°C, compared to pre-industry levels**.

➤ Working:

- The Paris Agreement works on a **5-year cycle** of increasingly ambitious climate action carried out by countries. In 2020, countries had submitted their plans for climate action known as **nationally determined contributions (NDCs)**.
- **Long-Term Strategies:**
 - **Long-term low greenhouse gas emission development strategies (LT-LEDS)** provide the **long-term horizon for the NDCs**. Unlike NDCs, they are not mandatory.

➤ Tracking Progress:

- With the Paris Agreement, countries established an **enhanced transparency framework (ETF)**. Under ETF, starting in 2024, countries will report transparently on actions taken and progress in climate change mitigation, adaptation measures and support provided or received.
 - It also provides for international procedures for the review of the submitted reports.
 - The information gathered through the ETF will feed into the **Global stocktake** which will assess the collective progress towards the long-term climate goals.

Hydrogen Fuel Cell

Why in News?

Recently, Germany launched the **world's first fleet of fully hydrogen-powered trains**, these are **emissions-free trains** that can reach speeds of 140 kilometres per hour and can run about 1,000 km before the tank runs dry.

Note:

What are the Key Points of Hydrogen Fuel Cell?

➤ About:

- Hydrogen fuel cells are a **clean, reliable, quiet, and efficient source of high-quality electric power.**
- They use hydrogen as a fuel to drive an electrochemical process that produces electricity, with water and heat as the only by-products.
 - **Hydrogen** is one of the most abundant elements on earth for a **cleaner alternative fuel option.**

What are the Types of Hydrogen based on the process of its formation?

- **Green hydrogen** is produced by **electrolysis of water using renewable energy (like Solar, Wind)** and has a **lower carbon footprint.**
 - Electricity splits water into hydrogen and oxygen.
 - **By Products:** Water, Water Vapor.
- **Brown hydrogen** is produced **using coal** where the emissions are released into the air.
- **Grey hydrogen** is produced from **natural gas** where the associated **emissions are released into the air.**
- **Blue hydrogen** is produced from natural gas, where the **emissions are captured** using carbon capture and storage.

➤ Significance:

- **Best Zero Emission Solutions:** It is one of the **best Zero Emission solutions.** It is completely **environment friendly with no tailpipe emissions** other than water.
 - **Tailpipe emissions:** Emission of something such as gas or radiation into the atmosphere.
- **Quiet operation:** The fact that the fuel cells make little noise means that they can be used in challenging contexts, such as in hospital buildings.
- **Easier scaling:** Operation times of fuel cells are longer than those of batteries, with fuel cells, only the amount of fuel needs to be doubled to double the operation time, while batteries require the capacity of the components to be doubled to achieve the same.

➤ Issues:

- **High Cost:** Green hydrogen makes up **only 0.03% of global hydrogen production** and it is up to five times more expensive than 'grey' hydrogen produced from natural gas or worse, 'brown' hydrogen produced from coal.
- **Hydrogen Storage:** Storage and transportation of hydrogen is more complex than that required for fossil fuels. This implies additional costs to consider for hydrogen fuel cells as a source of energy.
- **Hydrogen Extraction:** Despite being the most abundant element in the Universe, hydrogen does not exist on its own so needs to be extracted from water via electrolysis or separated from **carbon fossil fuels.**
 - Both of these processes require a significant amount of energy to achieve. This energy can be more than that gained from the hydrogen itself as well as being expensive.
 - In addition, this extraction typically requires the use of fossil fuels, which in the absence of carbon capture and storage (CCS) **undermines the green credentials of hydrogen.**
- **Indian Scenario:**
 - **Initiatives Taken:** The Union Budget for 2021-22 has announced a **National Hydrogen Energy Mission (NHM)** that will draw up a road map for using hydrogen as an energy source.
 - **Other Initiatives for Renewable Energy:**
 - **Jawaharlal Nehru National Solar Mission (JNNSM).**
 - **International Solar Alliance.**
 - **PM- KUSUM.**
 - **National Wind-Solar Hybrid Policy.**
 - **Rooftop Solar Scheme.**
 - There is a potential for India **to save more than 24 million tonnes of CO2 emissions every year** and 2,400 million litres of diesel fuel (and associated costs) if the **trains are switched to hydrogen.**
 - India currently has around 13,500 trains running every day, around 5,000 (37%) of these are diesel locomotives and the rest is fully electrified.

Note:

Plea on Western Ghats

Why in News?

Recently, the Supreme Court has dismissed a **Public Interest Litigation (PIL)**, which challenged the **Gadgil and Kasturirangan Committees** on **Western Ghats Ecologically Sensitive Area (ESA)**.

What are Eco-Sensitive Areas?

- Eco-Sensitive Areas (ESAs) are areas notified by the Ministry of Environment, Forest and Climate Change (MoEFCC) **around Protected Areas, National Parks and Wildlife Sanctuaries** under the **Environment Protection Act 1986**.
- The basic aim is **to regulate certain activities around National Parks and Wildlife Sanctuaries** so as to minimize the negative impacts of such activities on the fragile ecosystem encompassing the protected areas.

What was the PIL?

- The petitioner had pleaded to the apex court to not implement the recommendations of the Western Ghats Ecologically Expert Panel (**Gadgil Committee Report**) and the **High-Level Working Group (Kasturirangan Committee Report)**.
- It asked the court to **declare the 2018 draft notification** by the Union Ministry of Environment, Forest and Climate Change (MoEF&CC) as **ultra vires** (beyond its legal power or authority) as it may lead to the **violation of the Right To Life of the citizens** hailing from the Western Ghats, especially Kerala.
- The **petition pushed** for the implementation of the 2014 report of the **expert committee set up** by the former Chief Minister of Kerala.
 - The report recommended implementing changes in clauses of the **Environmentally Fragile Land (EFL)** in the Western Ghats, stating the **lapses occurred in determining the EFL areas**.

What did SC Rule?

- But the apex court dismissed the petition stating that the MoEF&CC draft notification it challenged in 2018, was followed by a **fifth draft notification** that was issued in July 2022.

- The draft notification issued in July prohibits activities like **mining, thermal power plants, and all 'Red' category industries** from coming up in the ESA.

- The Court did not find **any reason to exercise its jurisdiction under Article 32** of the Constitution of India.

What do the Committees say?

➤ Gadgil Committee:

- Also known as the **Western Ghats Ecology Expert Panel (WGEEP)**, it recommended that all of the Western Ghats be declared as the Ecological Sensitive Areas (ESA) with only limited development allowed in graded zones.
- It classified the whole of the Western Ghats, spread across six states and covering 44 districts and 142 talukas, as an **Eco-Sensitive Zone (ESZ)**.

➤ Kasturirangan Committee:

- It sought to **balance development and environment protection** in contrast to the system proposed by the Gadgil report.
- The **Kasturirangan committee** recommended that instead of the total area of Western Ghats, only **37% of the total area should be brought under ESA** and a complete ban on mining, quarrying and sand mining be imposed in ESA.

What do we Need to

Know about the Western Ghats?

➤ About:

- Western Ghats consist of a **chain of mountains running parallel to India's Western Coast** and passing from the states of **Kerala, Maharashtra, Goa, Gujarat, Tamil Nadu and Karnataka**.

➤ Significance:

- The Ghats **influence the Indian monsoon weather patterns** that mediate the warm tropical climate of the region.
- They act as a **barrier to rain-laden monsoon winds** that sweep in from the south-west.
- Western Ghats are **home to tropical evergreen forests**, as well as to 325 globally threatened species.

Note:

➤ Threats to Western Ghats:

○ Developmental Pressures:

- Urbanisation together with agricultural expansion and livestock grazing are posing **serious threats to the region**.
- About 50 million people are estimated to live in the Western Ghats Region, resulting in developmental pressures that are orders of magnitude greater than many protected areas around the world.

○ Biodiversity Related Issues:

- Forest loss, habitat fragmentation, habitat degradation by invasive **plant species, encroachment and conversion also continue** to affect the Ghats.
- Fragmentation caused by development pressure in the Western Ghats is **shrinking the availability of wildlife corridors** and suitable habitats outside Protected Areas.

○ Climate Change:

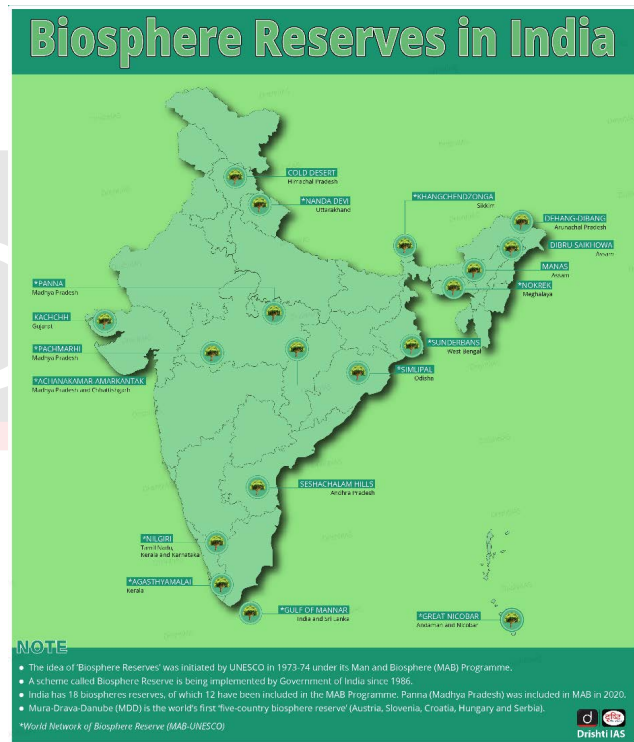
- In the intermediate years, the climate crisis has gained momentum:
- **In the past four years (2018-21)**, floods have ravaged the ghat areas of Kerala thrice killing hundreds of people and delivering an overwhelming blow to infrastructure and livelihoods
- **Landslides and flash floods** ravaged the ghat areas of Konkan in 2021

- Cyclones are also gaining intensity with the warming of the Arabian Sea leaving the west coast especially vulnerable.

○ Threats from Industrialisation:

- More polluting industries, **quarries and mines, roads, and townships are likely to be planned due to the absence** of the Western Ghats ESA policy.
- This implies more damage to the fragile landscape of the region in future.

Biosphere Reserves in India



Note:

History

Highlights

- Hyderabad Liberation Day
- Mohenjo Daro: UNESCO's World Heritage Site
- V. O. Chidambaram Pillai
- Acharya Vinoba Bhave

Hyderabad Liberation Day

Why in News?

The Telangana Government and Central government will observe 75 years of Liberation of Hyderabad on 17th September 2022 to signify the merger of erstwhile Hyderabad State under Nizam rule **with the Indian Union**.

What is the History about Integration of Princely State of Hyderabad into India?

- Hyderabad was one of the largest natives/princely states in India. It was **ruled by the Nizams who accepted the paramountcy** of the British sovereign.
- The Nizam of Hyderabad like the **Nawab of Junagadh** and the ruler of Kashmir did not accede to India before the date of independence, i.e., **15th August 1947**.
- He was encouraged by Pakistan and Muslim natives peoples, **to stay as an independent power** and improve his armed forces to resist the integration.
- During this military improvisation, internal chaos emerged in the state of Hyderabad because of which, on **13th September 1948, the Indian Army was sent into Hyderabad under Operation Polo** (military operation to annex Hyderabad into the Union of India), on the grounds that the law-and-order situation in Hyderabad threatened the peace of South India.
 - The troops met little resistance by the Razakars (the private militia who were resisting the integration), and between the **13th and 18th September, the military took complete control of the state**.
 - The operation led to **massive communal violence with estimates of deaths ranging from the official one of 27,000 to 40,000** to scholarly ones of 200,000 or more.

- After the integration, the **Nizam was retained as the head of state in the same manner** as the other princes who acceded to India.
- He thereupon, disowned the complaints that had been made to the UN and, despite vehement protests from Pakistan and strong criticism from other countries, the UN Security Council did not deal further with the question, and **Hyderabad was absorbed into India**.

Mohenjo Daro: UNESCO's World Heritage Site

Why in News?

Pakistan's Department of Archaeology warned that **heavy rainfall in the Sindh** province threatened the **World Heritage status of Mohenjo Daro**.

What threatens the Heritage Site?

- Between August 16 and 26, 2022, the **archaeological ruins of Mohenjo Daro received a record 779.5 mm of rain**, which had resulted in **"considerable damage to the site** and partial falling of several walls, including the protection wall of the stupa dome".
 - Muneer Area, Stupa, Great Bath and other important sites of these ruins have been badly affected by the natural disaster.
- It is feared that the ruins of Mohenjo Daro might be removed from the World Heritage list, therefore the authorities of Sindh have called for **urgent attention towards conservation and restoration work** at the site.

Note:

What are the Key Points of Mohenjo Daro?

- The site of Mohenjo Daro, literally meaning 'Mound of the Dead' is one of the important sites of **Indus Valley Civilization (IVC)**.
 - Sites of the **Indus Valley Civilisation** have been found in a **large area extending from Sutkagen Dor in Balochistan near the Pakistan-Iran border to Alamgirpur in Meerut district of Uttar Pradesh** and from Manda in Jammu to Daimabad in Maharashtra.
 - Other important sites of the Harappan civilization in India are at **Lothal and Dholavira in Gujarat, and Kalibangan in Rajasthan**.
- Along with Harappa, Mohenjo Daro is the **best-known site of the bronze age (3300 BC to 1200 BC) urban civilization**.
- It flourished in the Indus Valley between roughly **3,300 BC and 1,300 BC**, with its **'mature' phase spanning the period 2,600 BC to 1,900 BC**.
- Civilization went into decline in the **middle of the second millennium BC** for reasons that are believed to include **catastrophic climate change**.
- Excavation of Mohenjo Daro was started in 1920 and continued in phases until 1964-65, even now **only a small part of the site has been excavated**.
 - The prehistoric antiquity of Mohenjo Daro was established by **Rakhal Das Banerji of the Archaeological Survey of India in 1922**.
- The site is **famous for its elaborate town planning with street grids** with brick pavements, developed water supply, drainage, and covered sewerage systems, homes with toilets, and monumental buildings such as the **Great Granary and the Great Bath**.
- At its peak, it was estimated to have between 30,000 and 60,000 residents with a **highly evolved social organization**.
- The ruins of the sprawling city of unbaked brick 510 km northeast of Karachi and 28 km from Larkana in Sindh were recognised as a **UNESCO World Heritage site in 1980**.

What are UNESCO's World Heritage Sites?

- **About:**
 - A **World Heritage Site** is a place that is listed by **UNESCO for its special cultural or physical significance**.

- The list of World Heritage Sites is **maintained by the international 'World Heritage Programme'**, administered by the UNESCO World Heritage Committee.
- This is embodied in an international treaty called the **Convention concerning the Protection of the World Cultural and Natural Heritage**, adopted by UNESCO in 1972.
- **Sites:**
 - There are around **1,100 UNESCO listed sites across its 167 member countries**.
 - **In 2021**, 'Liverpool — Maritime Mercantile City' in the United Kingdom was deleted from the World Heritage List due to "the **irreversible loss of attributes** conveying the outstanding universal value of the property".
 - In 2007, the UNESCO panel **delisted the Arabian Oryx Sanctuary in Oman** after concerns over poaching and habitat degradation, and the Elbe Valley in Dresden, Germany, in 2009 after the construction of the Waldschloesschen road bridge across the Elbe River.
- **Sites in India:**
 - India is home to a total of **3691 monuments and sites**. Of these 40 are designated as **UNESCO World Heritage Sites**.
 - Including places like the Taj Mahal, **Ajanta Caves and Ellora Caves**. **World Heritage Sites also include natural sites like the Kaziranga National Park in Assam**.
 - Harappan city of **Dholavira** in Gujarat as India's **40th world heritage site**.
 - **Ramappa Temple (Telangana)** was India's 39th World Heritage Site.
 - **Khangchendzonga National Park**, Sikkim has been inscribed as India's first and the only "Mixed World Heritage Site".
 - In 2022, the Union Ministry of Culture nominated **Sacred Ensembles of the Hoysalas temples** for consideration as a World Heritage site for the year 2022-2023.

Note:



V. O. Chidambaram Pillai

Why in News?

Recently, the Prime Minister paid tribute to **V. O. Chidambaram Pillai**, the legendary freedom fighter on his **151th birth anniversary** on 5th September 2022.



- He was popularly known as **Kappalottiya Tamilan (The Tamil Helmsman)** and **Sekkizuththa Semmal** (scholarly gentry who suffered at the oil press).

Who was Chidambaram Pillai?

- **Birth:** Vallinayagam Olaganathan Chidambaram Pillai (VOC) was born **5th September 1872** to an eminent lawyer **Olaganathan Pillai** and Paramyee Ammai in Ottapidaram, **Tirunelveli district of Tamil Nadu**.
- **Early Life:** VOC graduated from **Caldwell College, Tuticorin**. Before beginning his law studies, he worked for a brief period as a taluk office clerk.
 - His tussle with the judge forced him to seek fresh pastures at Tuticorin in 1900.
 - Until 1905, professional and journalistic activities consumed most of his energy.
- **Entry in Politics:** VOC entered politics in 1905 following the **partition of Bengal**.
 - Towards the end of 1905, VOC visited Madras and was drawn closer to the **Swadeshi Movement** initiated by **Bal Gangadhar Tilak** and **Lala Lajpat Rai**.
 - VOC was drawn towards **Ramakrishna Mission** and came into contact with Subramania Bharati and the Mandayam family.
 - It was not until the arrival of VOC at Tuticorin (Present day Thoothukudi) that the **Swadeshi movement** in Tirunelveli district began to gather force and momentum.
- **Role Played in Freedom Movement:** By 1906, VOC won the support of merchants and industrialists in Tuticorin and Tirunelveli **for the idea of establishing a Swadeshi merchant** shipping outfit by the name of the **Swadeshi Steam Navigation Company (SSNCo)**.
 - He established many institutions like **Swadeshi Prachar Sabha**, Dharmasanga Nesavu Salai, National

Godown, Madras Agro-Industrial Society Ltd and Desabimana Sangam.

- VOC and Siva were aided in their efforts by a number of Tirunelveli-based lawyers, who formed an organisation called the **Swadeshi Sangam, or 'National Volunteers'**.
- The nationalist movement acquired a secondary character with the beginning of the Tuticorin Coral Mills strike (1908).
- Even prior to **Gandhiji's Champaran Satyagraha (1917)**, VOC took up the cause of the working class in Tamil Nadu, and thus **he is a forerunner to Gandhiji in this respect**.
- VOC, along with other leaders, resolved to take out a mammoth procession on the morning of 9th March 1908 to celebrate the release of Bipin Chandra Pal from jail and to hoist the flag of Swaraj.
- **Writings:** Meyyaram (1914), Meyyarivu (1915), Anthology (1915), Thirukural with literary notes of Manakudavar (1917), Tholkappiam with literary notes of Ilampooranar (1928), Autobiography (1946).
- **Death:** V.O.C died on **18th November 1936** in the **Indian National Congress Office** at Tuticorin.

Acharya Vinoba Bhave

Why in News?

Recently, the Prime Minister paid rich tributes to **Acharya Vinoba Bhave** on his birth Anniversary.

What do we need to know about Acharya Vinoba Bhave?

- **Birth:**
 - Vinayak Narahari Bhave was born on **11th September 1895** in **Gagode, Bombay Presidency** (Maharashtra).
 - He was the eldest son of **Narahari Shambhu Rao** and **Rukmini Devi**.
- **Brief Profile:**
 - Acharya Vinoba Bhave was a **nonviolence activist, freedom activist, social reformer and spiritual teacher**.
 - Being an avid follower of **Mahatma Gandhi**, Vinoba upheld his doctrines of **non-violence and equality**.
 - He dedicated his life to serve the poor and the downtrodden, and stood up for their rights.



Note:

➤ Awards & Recognition:

- Vinoba was the first recipient of the international **Ramon Magsaysay Award** for **Community Leadership in 1958**.
- He was also conferred with the **Bharat Ratna** (India's highest civilian awards) posthumously in **1983**.

➤ Association with Gandhi:

- Vinoba met Gandhi on **7th June 1916** and **took residence at the Ashram**.
 - Gandhi's teachings led Bhave to a life of austerity dedicated to improving Indian village life.
- The name Vinoba (a **traditional Marathi epithet signifying great respect**) was conferred upon him by **Mama Phadke, another member of the Ashram**.
- On **8th April 1921**, Vinoba went to Wardha to take charge of a Gandhi-ashram there under the directives from Gandhi.
 - During his stay at Wardha, Bhave also brought out a monthly in Marathi, named, '**Maharashtra Dharma**' which consisted of **his essays on the Upanishads**.

➤ Role in Freedom Struggle:

- He took part in programs of **non-cooperation** and especially the call for **use of Swadeshi goods** instead of foreign imports.
- He took up the **spinning wheel churning out Khadi** and urged others to do so, resulting in mass production of the fabric.
- In 1932, **Vinoba was sent to jail for six months to Dhulia** as he was accused of conspiracy against British rule.
 - During the imprisonment, he explained to fellow prisoners the different subjects of '**Bhagwad Gita**', in Marathi.
 - All the lectures given by him on Gita in Dhulia jail were collected and later published as a book.
- He was also chosen as the **first Individual Satyagrahi** (an Individual standing up for Truth instead of a collective action) **by Gandhi himself**.
- He served a **five-year prison sentence in the 1940s** for leading nonviolent resistance to British rule.
- He was given the honorific title "**Acharya**" (teacher).

➤ Role in Social Work:

- He worked tirelessly towards eradicating social evils like inequality.
- Influenced by the examples set by Gandhi, **he took up the cause of people who were referred to as Harijans by Gandhi**.
- He adopted the term **Sarvodaya from Gandhi** which simply means "**Progress for All**".
- **The Sarvodaya movement** under him implemented various programs during the 1950s, the chief among which is the **Bhoodan Movement**.

➤ Bhoodan Movement:

- In 1951, Vinoba Bhave started his **peace-trek on foot through the violence-torn region of Telangana**.
- On **19th 1951**, the **Harijans of the Pochampalli** village requested him to provide them with around 80 acres of land to make a living.
- Vinoba asked the **landlords of the village to come forward and save the Harijans**.
 - A landlord got up and offered the required land.
 - It was the beginning of the **Bhoodan (Gift of the Land) movement**.
- The movement **continued for thirteen years** and Vinoba toured the length and breadth of the country, a total distance of 58741 Km.
- He was successful in **collecting around 4.4 million acres of land, of which around 1.3 million was distributed** among poor landless farmers.
- The movement attracted admiration from all over the world and was commended for being the only experiment of his kind to incite voluntary social justice.

➤ Religious Work:

- He set up a number of Ashrams to promote a simple way of life, devoid of luxuries that took away one's focus from the Divine.
- He established the **Brahma Vidya Mandir in 1959**, a small community for women, aiming at self-sufficiency on the lines of Mahatma Gandhi's teachings.
- He took a strong stand on **cow slaughter** and declared to **go on fast until it was banned in India**.

➤ Literary Work:

- **His important books include:** Swarajya Sastra, Geeta Pravachane, Teesri Shakti or The Third Power etc.

➤ Death:

- Died in 1982, Wardha, Maharashtra.



Note:



drishti

Art and Culture

Highlights

- Importance of Regional Language
- Hindi Diwas

Importance of Regional Language

Why in News?

Recently, the Chairman of the **University Grants Commission (UGC)** emphasised that early initiation of learning a mother tongue is important for a child's creative thinking.

What are Regional Languages?

- Regional language is a **term used to refer to a language that is spoken by a sizeable number of people** but is not the de facto language of communication in the rest of the country.
 - A language is considered regional when it is mostly spoken by **people who reside largely in one particular area of a state or country**.
 - **Article 343(1) of the Indian Constitution** states that the official language of the Union shall be Hindi in Devanagiri Script.

What is the Need for Regional Language?

- **Remove Dilemma:**
 - To remove the **dilemma regarding giving preference to English language** rather than any vernacular language and let the child think naturally in their own mother tongue.
- **Colonial Mindset:**
 - There was a need to **change our attitudes**, so that when someone asked a question in a class in a regional language, they should not feel inferior.
- **Benefits:**
 - **Subject-Specific Improvement:** Several studies in India and other Asian countries suggest a positive impact on learning outcomes for students using a regional medium rather than the English medium.

- **Performance in science and math**, in particular, has been found to be **better among students studying in their native language** compared to English.

- **Higher Rates of Participation:** Studying in the native language results in **higher attendance, motivation and increased confidence** for speaking up among students and **improved parental involvement** and support in studies due to familiarity with the mother tongue.

- Poor grasp of English has been tied by many educationists to dropout rates at the premier engineering education institutions as well as poor performance of some students.

- **Additional Benefits for the Less-Advantaged:** This is especially **relevant for students who are first-generation learners** (the first one in their entire generation to go to school and receive an education) or the ones **coming from rural areas**, who may feel intimidated by unfamiliar concepts in an alien language.

What are the Initiatives taken by the Government for the Promotion of Vernacular Languages?

- The University Grants Commission is in talks with various regulatory bodies such as **Bar Council of India** for promotion of vernacular languages, therefore, a **committee had been formed under former Chief Justice of India** which would look into how institutions could provide legal education in local languages.
- The **All India Council of Technical Education** too had introduced courses in regional languages in 10 colleges.
 - Further, It is also working with the **High-Powered Committee on Indian Language Development** established by the **Ministry of Education** to identify

Note:

experts as well as 10-12 disciplines so that books could either be translated or written afresh.

- The regulatory body was aiming at preparing 1,500 books in regional languages in the next one year across different disciplines.
- The **Commission for Scientific and Technical Terminology (CSTT)** is providing publication grant towards the publications of University Level Books in regional languages.
- **The National Translation Mission (NTM)** is being implemented through the **Central Institute of Indian Languages (CIIL)**.

How would Regional Language be Promoted in Education?

- Either **institutes would adopt a regional language as a medium of instruction** or it would serve as a **learning aid for students in English medium** who may not be proficient in the language.
- **Use of Technology:** There was **artificial intelligence-based technology** available to enable real-time translations that would be seen in classrooms in the future.
- **National Education Policy:** The **National Education Policy 2022** lays emphasis on promoting mother tongue which should be a medium of instruction at least till class fifth or class eighth and after which it should be offered as a language.
 - It also urges universities to develop study material in regional languages.

What are the Constitutional Provisions related to Regional Language?

- **Article 345:** The legislature of a **State may by law adopt any one or more of the languages in use in the State or Hindi as the Language or Languages** to be used for all or any of the official purposes of that State.
- **Article 346:** The language authorised for use in the Union **for official purposes shall be the official language for communication between one State and another State and between a State and the Union.**
 - **For example-** If two or more States agree that the Hindi language should be the official language for communication between such States, that language may be used for such communication.

- **Article 347:** It gives the **President the power to recognise a language as an official language of a given state**, provided that the President is satisfied that a substantial proportion of that state desires that the language be recognised. Such recognition can be for a part of the state or the whole state.
- **Article 350A:** The facilities for **instruction in mother-tongue at the primary stage.**
- **Article 350B:** It provides for the **establishment of a Special Officer for linguistic minorities.**
- **Article 351:** It gives power to the union government to **issue a directive for the development of the Hindi language.**

Hindi Diwas

Why in News?

On the occasion of Hindi Diwas, Prime Minister of India has said that the Hindi language has brought India special honour globally and its simplicity and sensitivity always attracts people.

What is the History behind Hindi Diwas?

- Hindi Diwas or the National Hindi Day is **celebrated every year in India on September 14** to mark the **day of adoption of Hindi as the official language by the Constituent Assembly of India** in 1949.
- The decision of using Hindi as an official language of India was **legalised by the Constitution of India on January 26, 1950**. India's first prime minister Jawaharlal Nehru decided to celebrate Hindi Diwas on this day.
- Hindi is also an **eighth schedule language**.
- Hindi is **not a classical language**.
- **Article 351** pertains to the 'Directive for development of the Hindi language'.

What are the Government Initiatives to Promote Hindi?

- The **Central Hindi Directorate** was established in **1960** by the Government of India under the Ministry of Education to promote and propagate Hindi.
- **Indian Council for Cultural Relations (ICCR)** has established '**Hindi Chairs**' in various foreign universities/institutions abroad to promote Hindi language in foreign countries.

Note:

- **LILA-Rajbhasha** (Learn Indian Languages through Artificial Intelligence) is a multimedia based intelligent self-tutoring application for learning Hindi.
- **E-Saral Hindi Vakya Kosh and E-MahashabdKosh Mobile App**, both initiatives of the Department of Official Language, aim to harness information technology for the growth of Hindi.
- **Rajbhasha Gaurav Puraskar and Rajbhasha Kirti Puraskar** recognise contributions to Hindi.

Hindi Language

- Hindi is the **fourth most spoken language in the world**, and is written in Devanagari script. The language got its name from the Persian word 'Hind' - meaning 'land of the Indus River'; and is a descendant of Sanskrit.

- Turk invaders in the early 11th century named the language of the region Hindi, 'language of the land of the Indus River'.
- It is the **official language of India, English being the other official language**.
- Hindi is also spoken in some countries outside India, such as in Mauritius, Fiji, Suriname, Guyana, Trinidad & Tobago and Nepal.
- Hindi in its present form emerged through different stages, during which it was known by other names. The earliest form of old Hindi was Apabhramsa. In 400 AD Kalidas wrote a romantic play in Apabhramsa called Vikramorvashiyam.
- The modern Devanagari script came into existence in the 11th century.



Note:

Security

Highlights

- Project 17A and INS Taragiri
- Naval Exercise Kakadu
- Quick Reaction Surface to Air Missile system
- Cyber Security Exercise "Synergy"

Project 17A and INS Taragiri

Why in News?

Recently, Mazagon Dock Shipbuilders Ltd (MDL), which is under the Ministry of Defence, launched **Taragiri**, the third stealth frigate of **Project 17A**.

What is Project 17A?

➤ About:

- Project 17 Alpha frigates (P-17A) were launched by the Indian Navy in 2019 **to construct a series of stealth guided-missile frigates**.
- These are currently being constructed by two companies - **Mazagon Dock Shipbuilders (MDL)** and **Garden Reach Shipbuilders & Engineers (GRSE)**.
- These guided-missile frigates have been constructed with a **specific stealth design**, which has **radar-absorbent coatings** and is low-observable which can make its approach undetectable for the enemies.
 - The new technology also **reduces the infrared signals of the ship**.
- The first stealth ship launched under Project 17A was the **Nilgiri**, which was launched in 2019.
- **Udaygiri**, the second ship, was launched in May 2022, and will likely be commissioned in 2024.

➤ **Present Status:** Further, **seven P17A Frigates** are under various stages of construction at MDL and GRSE.

➤ Benefits:

- It provides additional benefits such as **economic development, and employment generation for Indian Shipyards**, their sub-contractors and the ancillary industry.

○ Around 75% of the orders of Project 17A have been placed on indigenous firms including MSMEs, thus reinforcing the country's quest for **Atma Nirbhar Bharat**.

- Indigenous construction of complex frontline ships such as Stealth Frigates has catapulted the nation to a **higher pedestal in the arena of shipbuilding**.

What are the Key Highlights of Taragiri?

- Taragiri is named after a hill range in the Himalayas located at Garhwal.
- The ship has been built using an **integrated construction methodology** which involves hull block construction in different geographical locations.
- The ship will have **state-of-the-art weapons, sensors, an advanced action information system**, an integrated platform management system, world-class modular living spaces, a sophisticated power distribution system and a host of other advanced features.
- It will be fitted with a **supersonic surface-to-surface missile system**.
- The ship's air defence capability, designed to counter the threat of enemy aircraft and anti-ship cruise missiles will revolve around the vertical launch and long-range surface-to-air missile system.

Naval Exercise Kakadu

Why in News?

INS Satpura and **P8I Maritime Patrol Aircraft** have arrived in **Darwin in Australia** to participate in a multinational naval **exercise, Kakadu**, being hosted by the **Royal Australian Navy**.

Note:





What do we Know about Exercise Kakadu?

- **About:**
 - Exercise Kakadu is a joint-enabled, **biennial exercise** hosted by the Royal Australian Navy and supported by the Royal Australian Air Force.
 - Kakadu is the Navy's premier maritime exercise, **developing interoperability between nations in the maritime and air domains**, and providing training opportunities for maritime security and surveillance.
 - It started in 1993.
- **Exercise Kakadu -22:**
 - It's a two-week-long exercise, both in harbour and sea, involving ships and maritime aircraft from 14 navies.
 - **Participation:** Around 19 vessels, 34 aircraft and more than 3000 personnel from 25 countries are expected.
 - **Theme:** Partnership, Leadership, Friendship.
 - **Significance:** As Navy's most significant international engagement activity, Exercise Kakadu is vital for building relationships between participating countries.

- The exercise provides an opportunity for regional partners to undertake **multinational maritime activities** ranging from constabulary operations to **high-end maritime warfare** in a combined environment.

What are other military exercises with Australia?

- **Multilateral exercise:**
 - **Malabar**
 - **Exercise Pitch Black 22**
- **Bilateral exercise: Ausindex.**

Quick Reaction Surface to Air Missile system

Why in News?

Recently, India conducted six successful flight-tests of the **Quick Reaction Surface to Air Missile (QRSAM) system** from Integrated Test Range (ITR) Chandipur off the Odisha coast.

- The test was jointly conducted by the **Defence Research and Development Organisation (DRDO)** and **Indian Army**.

What is QRSAM?

- **About:**
 - QRSAM is a **canister-based system**, which means that it is **stored and operated from specially designed compartments**.
 - In the canister, the **inside environment is controlled**, thus along with making its transport and storage easier, the shelf life of weapons also improves significantly.
 - The system is **capable of detecting and tracking targets** on the move and engaging targets with short halts.
- **Range and mobility:**
 - It is a short-range surface-to-air missile (SAM) system, **primarily designed and developed by DRDO to provide a protective shield** to moving armoured columns of the Army from enemy aerial attacks.

Note:

- The entire weapon system has been configured on a mobile and manoeuvrable platform and is capable of providing air defence on the move.
- It has been designed for induction into the Army and has a range of 25 to 30 km.



➤ **Functioning:**

- The QRSAM weapon ensemble, which functions on the move, consists of a **fully automated command and control system**.
 - It also consists of two radars - Active Array Battery Surveillance Radar and Active Array Battery Multifunction Radar - with one launcher.
- Both radars have **360-degree coverage with “search on move”** and “track on move” capabilities.
- The system is compact, **uses a single stage solid propelled missile and has a mid-course inertial navigation system** with two-way data link and terminal active seeker developed indigenously by DRDO.

Cyber Security Exercise “Synergy”

Why in News?

Recently, **Computer Emergency Response Team - India (CERT-In)** successfully designed & conducted the **Cyber Security Exercise “Synergy”** for 13 Countries as part of the **International Counter Ransomware Initiative**.

- The exercise was conducted as part of the International Counter Ransomware Initiative-

Resilience Working Group which is being led by India under the leadership of **National Security Council Secretariat (NSCS)**.

What is CERT-IN?

- Computer Emergency Response Team - India is an **organisation of the Ministry of Electronics and Information Technology** with the objective of securing Indian cyberspace.
- It is a **nodal agency which deals with cybersecurity threats** like hacking and phishing.
- It collects, analyses and disseminates information on cyber incidents, and also **issues alert on cybersecurity incidents**.
- CERT-IN provides **Incident Prevention and Response Services** as well as Security Quality Management Services.

What is Synergy?

➤ **About:**

- Synergy is a **Cyber Security Exercise** which is successfully designed & conducted by **CERT-In** in collaboration with **Cyber Security Agency of Singapore (CSA)**.
- The exercise scenario was derived from real life cyber incidents, in which a domestic level (limited impact) ransomware incident escalates to a global cyber security crisis.
- Each State participated as a **National Crisis Management Team having composition from different government agencies** including National CERTs/CSIRTs, Law Enforcement Agencies (LEA), Communication & IT/ICT Ministry and Security agencies.

➤ **Objectives:**

- To **Assess, Share and Improve strategies** and practices among Member-States to build network resiliency against **ransomware & cyber extortion attacks**.

➤ **Theme:**

- Building Network Resiliency to Counter Ransomware Attacks.

Note:



What is Ransomware?

- Ransomware is a **malware designed to deny a user or organization access to files** on their computer.
- By encrypting these files and demanding a ransom payment for the decryption key, **cyber attackers place organizations in a position where paying the ransom is the easiest and cheapest way to regain access** to their files.
- Some variants have added additional functionality – such as data theft – to provide further incentive for ransomware victims to pay the ransom.

What are Government Initiatives for Cyber Security?

- **Cyber Surakshit Bharat Initiative**
- **Cyber Swachhta Kendra**
- **Online cybercrime reporting portal**
- **Indian Cyber Crime Coordination Centre (I4C)**
- **National Critical Information Infrastructure Protection Centre (NCIIPC)**
- **Information Technology Act, 2000**
- **National Cyber Security Strategy 2020**



Note:

Miscellaneous

Highlights

- Serious Fraud Investigation Office
- Stockholm Junior Water Prize
- Smart Solutions Challenge and Inclusive Cities Awards 2022

Serious Fraud Investigation Office

Why in News?

The **Serious Frauds Investigation Office (SFIO)** has arrested the alleged **mastermind of a widespread racket involving the setting up of shell companies** with Chinese links and supply of dummy directors.

- SFIO was assigned by the government to **investigate Jillian Consultants India Pvt Ltd** and 32 other companies.

What are the Shell Companies?

- A shell company is a **firm that does not conduct any operations in the economy**, but it is formally registered, incorporated, or legally organized in the economy.
- These are sometimes **used illegitimately, such as to disguise business ownership** from law enforcement or the public.

What is SFIO?

- **About:**
 - SFIO is a **multi-disciplinary organization under the Ministry of Corporate Affairs**, consisting of **experts in the field** of accountancy, forensic auditing, law, information technology, investigation, company law, capital market and taxation for **detecting and prosecuting or recommending for prosecution white-collar crimes/frauds**.
 - It has its head office in **New Delhi**.
 - The **Computer Forensic and Data Mining Laboratory (CFDML)** was set up in 2013 to provide support and service to the officers of SFIO in their investigations.

- SFIO is headed by a **Director** as Head of Department **in the rank of Joint Secretary** to the Government of India.
- Serious Fraud investigation (SFIO) was initially set up by the Government of India by way of a resolution dated 2nd July, 2003. At that time SFIO did not enjoy a formal legal status.

Function and Roles:

- **Section 211 of the Companies Act, 2013**, has accorded statutory status to the **Serious Fraud Investigation Office (SFIO)**.
 - SFIO also has **powers to arrest people for the violation of the Company law**.
- An investigation into the affairs of a company can be initiated by the Central Government and **entrusted to the Serious Fraud Investigation Office** under the following circumstances:
 - On receipt of a report of the Registrar or inspector **under section 208** (Report on Inspection made) of the Companies Act, 2013.
 - On intimation of a special resolution passed by a company that its affairs are required to be investigated.
 - In public interest.
 - On request from any Department of the Central Government or a State Government.

Smart Solutions Challenge and Inclusive Cities Awards 2022

Why in News?

Recently, **Smart Solutions Challenge and Inclusive Cities Awards 2022** were awarded by the Ministry of Housing and Urban Affairs.

Note:

Why were the Key Highlights of the Event?

- In the category of early-stage innovations, the winner was a **wearable technology product, Fifth Sense by Glovatrix Pvt. Ltd.**
 - This product **translates sign language gestures to speech and text using sensors and Artificial Intelligence.**
- In the second category of market-ready solutions, **Mouseware by Dextroware Devices Pvt. Ltd.** was the winner.
 - Mouseware is a **head-wearable device that enables hands-free control of computers and smart gadgets.**
- **Belagavi Smarty City's** system for those with disabilities to access education and healthcare was awarded the **top prize in the category of implemented solutions.**

What should we Know about the Awards?

- **About:**
 - The Smart Solutions Challenge is an **initiative of the National Institute of Urban Affairs (NIUA) and the United Nations (UN) in India.**
 - NIUA and UN in India are looking for **innovative ideas, solutions, technologies, products, and business solutions** that can help break-down and resolve complex city-level inclusion and accessibility challenges **faced by persons with disabilities, women and girls, and the elderly.**
- **Significance:**
 - These solutions will be instrumental in integrating universal design, which will help **achieve Sustainable Development Goals' target 11.7- to provide safe, inclusive and accessible, green and public spaces for all vulnerable communities.**

What is National Institute of Urban Affairs?

- NIUA is an institute for **research, training and information dissemination in urban development and management.** It is located in **New Delhi, India.**
- It was established in 1976 as an **autonomous body under the Societies Registration Act, 1860.**
- The Institute is supported by the **Ministry of Housing and Urban Affairs, Government of India, State Governments, urban and regional development authorities and other agencies concerned with urban issues.**

What are Other Initiatives

Related to Urban Development?

- **Atal Mission for Urban Rejuvenation and Urban Transformation (AMRUT).**
- **Pradhan Mantri Awas Yojana-Urban (PMAY-U).**
- **Integrated Command and Control Centres (ICCCs).**
- **Climate Smart Cities Assessment Framework 2.0.**
- **India Smart Cities Fellowship Program.**
- **TULIP-The Urban Learning Internship Program.**

Stockholm Junior Water Prize

Why in News?

Recently, **Annabelle M. Rayson**, a student from Canada received the **prestigious 2022 Stockholm Junior Water Prize** for her research on **how to treat and prevent harmful algae blooms.**

- **Harmful Algal Blooms, or HABs,** occur when colonies of algae grow out of control and produce toxic or harmful effects on people, fish, shellfish, marine mammals and birds.

What is Stockholm Junior Water Prize?

- **About:**
 - Stockholm Junior Water is an **international competition** where students aged **15 to 20 years present solutions to major water challenges.**
 - It has been organized every year **since 1997 by the Stockholm International Water Institute, with Xylem, an American water technology provider.**
 - This prize is a popular part of the **World Water Week.**
- **Other Prizes:**
 - **Diploma of Excellence:**
 - It was awarded to **Laura Nedel Drebes and Camilly Pereira dos Santos from Brazil** for their development of addressing the issue of **period poverty** — the inaccessibility to sanitary pads.
 - **People's Choice Award:**
 - The People's Choice Award went to **Mishal Faraz from the United Arab Emirates** for Water Bottle Project to **discourage the use of single-use plastic water bottles and strengthen water security.**



Note:

Ethics

Highlights

- Crack Down on Illegal Liquor Supply
- Faustian Bargain Vs Principled Position
- Effect of the Internet on the Morals and Values of Children
- Civil Servants and Freedom of Speech
- Policing in India and Ethics

Crack Down on Illegal Liquor Supply

Why in News?

Recently, an Indian Police Service (IPS) officer used soft policing to crack down on illegal hooch distilleries in Solapur (Maharashtra).

- Hooch is made when 'country alcohol' or cheap distilled liquor (desi daru) is adulterated with industrial alcohol or methanol to increase its intoxicating potency.
- **National Crime Records Bureau (NCRB)** data show that 6,172 people died between 2016 and 2020 due to the consumption of illicit hooch in India

What are the Responsibilities of Different Stakeholders involved in Such Operations?

- **State and Central Governments:**
 - **Implement the constitutional values** by endeavouring for prohibition (**Article 47**).
 - Maintain impartiality in taking legal actions against the culprits.
 - **Be transparent and uphold rule of law** in investigations.
 - Maintain fairness in decision making and determining the accountability of mishaps.
- **District Magistrate:**
 - **Maintaining nonpartisanship and probity in bringing perpetrators** to justice no matter how powerful they might be.
 - Show empathy towards the victims and their families.

➤ Police:

- **Curb the illegal liquor trade** with an unbiased attitude
- To maintain nonpartisanship in discharge of their duty by not sidelining or exonerating the politicians.
- Maintaining integrity while delivering duty.
- Be accountable for its omissions and commissions.
- Rectitude of dereliction duties.
- Elimination of corruption, promoting honesty in discharge of duties.

➤ Media:

- **Be responsible and liable** for their reports.
- Being one of the pillars of democracy it is their duty to report the truth fearlessly but objectively.

➤ Ministers/ MLAs:

- Uphold integrity by following the laws in letter and spirit.
- Pay allegiance to the oath of public service

➤ Society:

- Inculcate moral restraint to abjure consumption of liquor, which also causes health hazards.
- Embracing the Gandhian ideals of prohibition.
- Perform the duty of being a good citizen by helping the administration and police to bring about justice.

Faustian Bargain Vs Principled Position

What is a Faustian Bargain?

➤ About:

- Its classical definition **refers to a pact where someone trades something of supreme moral**

Note:



and spiritual value to them, a core principle which defines their essential being, in return for power, knowledge, or wealth.

- The idea comes from the **German legend of Johann Georg Faust** who sold his soul to the devil for unlimited knowledge and worldly pleasures.
 - This was for a **fixed period** and it is a tale that has inspired great literature from Christopher Marlowe's play Doctor Faustus to Goethe's drama Faust.
 - In this bargain, **Faust's soul gets reclaimed by the devil for eternity** when the contract expires. This is a hard bargain.
- In modern terms, **this means a temporary benefit gained for the suspension**, or suppression, of one's conscience. The guilt of the compromise, however, does not go away.

➤ **Examples:**

- The Chief Minister of Delhi too might have made such a bargain when he chose not to condemn the release of the 11 men who were convicted for serious crimes in the **Bilkis Bano case** while campaigning in Gujarat Election.
- Perhaps deposed Myanmar leader Aung San Suu Kyi also made a Faustian bargain when she made a deal with the Myanmar Generals to come to power despite the atrocities by the army against the Rohingya.
- The case of former Chief Justice of India Ranjan Gogoi can also be considered a Faustian deal with the Government that resulted in his nomination to the Rajya Sabha.
- Faustian bargain, **however distasteful and unethical** it may be, be justified by **better outcomes measured in utilitarian terms**.
 - Mr. Kejriwal may produce a better government in Gujarat and Aung San Suu Kyi's produced a democratic government in Myanmar.

What is the Principled Position?

➤ **About:**

- In contrast to the Faustian bargain, **some politicians prefer not to make compromises** believing that it is better to take public positions that are consistent with one's values rather than adopt a utilitarian calculus of compromise with evil for a future good.

➤ **Examples:**

- **Babasaheb Ambedkar resigned in 1951 when he felt Nehru had undermined his position** as the Law Minister on the Hindu Code Bill which he wanted to be discussed.
 - His resignation speech is an artistic statement of the principled position.
- Gandhiji entered into no Faustian bargain, nor did Nelson Mandela or Jawaharlal Nehru or Rabindranath Tagore.

Effect of the Internet on the Morals and Values of Children

Why in News?

In this era of computer and knowledge, moral and social values have essential effects on people and the education process in society.

What are the Positive and Negative Impact of the Internet on Children?

➤ **Positive Impact:**

- **Inspiration to Pursue Education:**
 - There are countless stories of how kids have been inspired to pursue education and sports through the help of the media.
 - Additionally, there are **countless stories of how these young people have achieved important goals in their academic careers** and have subsequently went on to do extraordinary things such as becoming professional athletes.
- **Help in Promoting Social Skills:**
 - It has been found that the **use and exposure to media technology has promoted social skills in young people** that they are able to utilise in their future lives.
 - For example, **it was found that by playing computer and video games, children were learning the ability to think for themselves, independently and creatively.**
- **Increased Interactivity:**
 - Children also **benefit from the Internet's increased interactivity.**

Note:

- It can be argued that this is one of the biggest advantages of the internet for youngsters because it allows for the exchange of information, knowledge and ideas which are essential for any healthy learning environment.
- **Enhance Qualities of Moral Aptitude:**
 - The circulation, access of positive information, and interactions with the positive personalities on the internet **imbibe the qualities of empathy, compassion, and moral aptitude.**
- **Negative Impact:**
 - **Increasing instances of Bullying and Cyberbullying:**
 - Cyberbullying and security risks are associated with increased internet usage by children, which degrades moral and value-centered development.
 - **Cyberbullies are those individuals who target other young children or young adults** via various means such as instant messaging and email.
 - ◆ Most cases **involve physical confrontation** and one offender threatening or bullying another using the internet.
 - **Impact on Mental Health:**
 - One common effect is that it **can negatively affect the mental health of the individual.**
 - In some cases, it can **lead to depression and suicidal thoughts.**
 - Also, it can lead to a lack of intimacy in relationships and it can also lead to the withdrawal from social groups and activities.
 - **Restricts the Scope of Critical Thinking:**
 - **Using readymade information on the internet limits children's ability to learn critically,** affecting their cognitive development.
 - **Detachment from Society:**
 - The internet **detaches the children from societal reality,** which may create societal apathy, indifference, etc. among them, which ultimately results in the diminishing of our moral, and cultural values.
 - Moreover, the **societal detachments negatively impact their decision-making, and leadership skills.**

Civil Servants and Freedom of Speech

Why in News?

A senior IAS officer from Telangana, tweeted from her personal account in support of Ms. Bano and questioned the Gujarat government's decision of releasing **11 men convicted on charges of gang-raping Bilkis Bano** during the 2002 Gujarat riots.

- It prompted a debate about whether the officer **breached the Civil Service (Conduct) Rules of 1964** and revived the debate about **civil servants' right to express their personal views on matters of law and governance.**

What is Bilkis Bano Case?

➤ About:

- On 15th August 2022, 11 convicts who were serving life sentences for rape and murder in the case, walked out of prison to a heroes' welcome.
- Many also **pointed out that the release is in contravention of guidelines issued by both the federal government** and the Gujarat state government - both say that rape and murder convicts cannot be granted remission.
 - Life terms in these crimes are usually served until death in India.
- The Supreme Court has asked the Gujarat government for its response after taking up petitions filed by opposition politicians and activists.

➤ Role of Civil Servant:

- Adding the word "civil servant" by the officer in the tweet on Bilkis Bano Case is aligned with the sense that the **dharma of the civil servant is to uphold constitutional principles in letter and in spirit, and the rule of law.**
- In this case, **both the spirit of the Constitution and the rule of law were being subverted.**
- This **could be a very dangerous precedent,** as recently when the Andhra Pradesh government released eight murder convicts (on remission, despite them not completing the mandatory 14 years in jail).
- For some actions if civil servants, whether retired or in service, speak up, that would have some kind of a deterrent [effect] on the arbitrary abuse of bureaucratic power.

Note:



Can a Civil Servant Express their Views on Government Policy and Action?

- A civil servant has the right to tweet because the citizens of this country have the **fundamental right of free speech (Article 19)** guaranteed to them under the Constitution, which is subject to reasonable restrictions in the interest of securing the state's sovereignty, international relations, health, morality, etc.
- But when a **civil servant undertakes government service**, he/she subject themselves to certain disciplinary rules.
 - That prevents a **government servant from becoming a member of a political organisation, or any organisation** of such a nature, or expressing herself freely with regard to anything that has to do with the governance of the country.
 - This rule is from the British era and **there is no doubt that the British were very, very strict** and didn't want their officers to be talking about how bad the governance was.
- But in a democracy, the **right to criticise the government is a fundamental right**.

What are the Related Judgements?

- **Lipika Paul v. the State of Tripura:**
 - In a landmark judgment, in January of 2020, the **High Court of Tripura ruled that** 'a government servant is not devoid of her right of free speech, a fundamental right.'
 - The Court did **acknowledge that the expression of the right to speech is subject to curtailment in certain circumstances**; nevertheless, the judgment has significant implications concerning the right to freedom of expression for government employees.
 - In the Bilkis Bano case, the officer was entitled to hold her own beliefs and express them in the manner she desired, subject to not crossing the borders laid down in the Conduct Rules which were applicable in Tripura.
 - A fundamental right cannot be curtailed except by a valid law made by a legislature.
 - **Rule 9 of the Rules of the Central Civil Services (Conduct) Rules states**, "No Government servant shall... make any statement of fact or opinion... which has the effect of an adverse criticism of any current or recent policy or action of the Central Government or a State Government."

➤ Kerala High Court Judgement:

- In 2018, the Kerala High Court had said "One cannot be prevented from expressing his views merely because he is an employee".
- In a democratic society, **every institution is governed by democratic norms**.

Policing in India and Ethics

Why in News?

Former President Ram Nath Kovind gave the message that an 'ideal police system' indicates that the job of a police officer is full of responsibility and accountability.

Why are Police Ethics Different?

➤ Taking Moral Decisions:

- **Life and liberty are fundamental moral values** and are held to be so in all human societies, and the police routinely have to decide whether to arrest, i.e., whether or not to take away someone's freedom, and at its extreme, sometimes they must decide whether or not to take away someone's life.
- While making any moral decisions, **the police have to consider a complex array of actions**.
- They have to consider the goodness and badness of a person before they can consider whether their actions are wrong.
- For any action taken by a person, they have to see the motivation and intentions of the action and its consequences.

➤ May be Required to Face Danger or Hostility:

- The police may be **required to face danger or hostility in order to do their duty**, and predictably, in the course of their work, police officers are likely to experience a range of emotions including fear, anger, suspicion, excitement, and boredom to a far greater extent than people in other occupations.
- To act effectively as police, **they must be able to respond to these emotions** in the right way, which requires them to be emotionally intelligent.

What are the Various Issues with Ethical Policing in India?

➤ Politicization of the Police:

- The rule of law in India, the frame on which justice hangs, has been "**undermined by the rule of politics**."

Note:

- The major reasons for the politicisation of the police is the **lack of a proper tenure policy for the posting of officers at different levels** and the arbitrary transfers and postings that have been used for political interest.
- **Politicians use transfer and suspension as weapons** to tame police officers.
- These **punitive measures affect the morale of the police** and damage the chain of command within the organisation, thereby undermining the authority of those of their superiors who might be honest, competent, and fair-minded, but not sufficiently supportive or politically useful.
- **Mindless Denigration of the Police:**
 - Bayley and the authors of Ethical Issues in Policing in India say that the **rule of law is being replaced by the rule of politics**, which is a cause of concern for establishing **good governance** in the country.
 - According to them, **mindless denigration of the police is irresponsible** because it is counterproductive in terms of assisting those honest and competent police officers who are trying to renovate Indian police institutions.
- **Corruption:**
 - Though corruption is prevalent in every part of the world, India ranks 85 out of 180 countries in the **corruption perception index, 2021**.
 - The **police department is not untouched by the corruption** that is prevalent in the department at almost every level and in different forms.
 - There have been instances where high ranking police officials were found to be indulged in corruption activities and there have also been instances where low ranking police officials were caught red-handed taking bribes.
- **Custodial Death:**
 - The total number of custodial deaths in India increased from 1,940 in 2020-'21 to 2,544 in 2021-'22, according to government data.
 - **Uttar Pradesh** has reported the highest number of custodial deaths among all states and Union Territories in the last two years.
- **Use of Coercive Methods:**
 - The term police coercion can best be defined as when a police officer uses undue pressure or intimidation in an effort to secure a confession from a suspect to a crime.

- Police coercion can take many forms and police officers have been accused of using different types of coercion in an effort to get a suspect to confess.

What are the Various Related Suggestions?

- **Recommendation of Shah Commission (1978):**
 - The **Shah Commission of Inquiry in its report (Report No. II, April 26, 1978)** recommended that the government **should seriously consider the viability and desirability of insulating the police from the politics of the country** and employing them scrupulously on police duties that alone by law are intended to stop political interference.
- **National Police Commission (1977):**
 - To protect the police from outside influences and internal influence, the National Police Commission also offered a number of important suggestions.
 - The commission recommended that judicial inquiry should be made mandatory in case of Custodial rape, Death due to police firing and excessive use of force.
- **Model Police Act:**
 - **The Soli Sorabjee Committee** was established to frame a Model Police Act.
 - The committee submitted its recommendations in 2006, **“to enable the police to operate as an efficient, effective, people-friendly, and responsive agency.”**
 - In general, the **committee adhered to the precedent** established by the **Supreme Court** in its **Prakash Singh decision**.
 - In the Prakash Singh Case of 2006, the **Supreme Court gave 7 directives with a view to bring in police reforms.**

SEVEN DIRECTIVES OF SUPREME COURT

1. Constitute a State Security Commission
2. Fixed two-year tenure for DGP
3. Two-year term for SPs & SHOs
4. Separate Investigation and L&O functions
5. Set up Police Establishment Board
6. Set up Police Complaints Authorities at State & Dist levels
7. Set up National Security Commission at Centre level



- The Government of India promised in Parliament that a Model Police Act would be introduced in the near future, which has not yet occurred.



Note:

Key Points

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Summary

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