ASTRA

COMPLETE COVERAGE OF MONTHLY CURRENT AFFAIRS

AUGUST 2021

Vehicle Scrappage Policy

Smog Tower
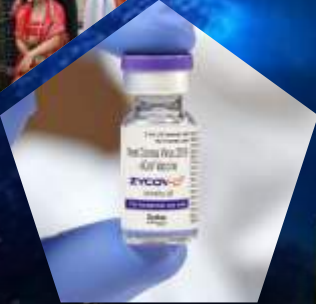
Halam Community

Milky Seas Effect

Hulhule

Thilafushi

Male' - Thilafushi Link

Gulhifalhu

Villingili

Male'

China Maldives Friendship Bridge

Greater Male Connectivity Project

Aranmula Boat Race

Why in the news?
- Aranmula Uthrattathi Vallamkali (boat race) was held in **Pampa river, Kerala** recently.

About the boat race
- It is the oldest river boat race in Kerala held during **Onam (August–September).**
- It takes place at **Aranmula temple** (dedicated to Lord Krishna and Arjuna) in the **river Pampa.**
- **Palliyodams:** These are Aranmula's unique snake boats ("Chundan Vallam").
- **Vanchipattu (song):** The oarsmen sing traditional boat songs known as Vanchipattu while rowing the boat.

Abanindranath Tagore

Why in the news?
- Year-long celebrations, marking 150 years of Abanindranath Tagore, has started recently.

About Abanindranath Tagore
- Abanindranath Tagore was the principal artist and creator of 'Indian Society of Oriental Art' and the first major exponent of swadeshi values in Indian art.
- He was the First Indian artist to gain international recognition.
- He founded the influential Bengal school of art, which led to the development of modern Indian painting.
- Abarindranath Tagore was a nephew of the poet Rabindranath Tagore.
- Popularly known as 'Aban Thakur', his books Rajkahini, Budo Angla, Nalak, and Ksheerer Putul are landmarks in Bengali language children's literature.
- Tagore sought to modernize Moghul and Rajput styles in order to counter the influence of Western models of art, as taught in Art Schools under the British Raj and developed the Indian style of painting, later known as Bengal school of art.
- His work was very successful and was eventually accepted and promoted as a national Indian style within British art institutions under the epithet of Indian Society of Oriental Art. list of **paintings** by Abanindranath Tagore are **Passing of Shah Jahan (1900), Ashoka's Queen (1910), Bharat Mata (1905) and Moonlight Music Party (1906)**.
- He was also a noted writer, particularly for children.
- Popularly known as '**Aban Thakur**', his books Rajkahini, Buro Angla, Nalak, and Khirer Putul were landmarks in Bengali language children's literature and art.

Narayankoti Temple

Why in the news?
- Narayankoti temple of Uttarakhand has been included under the Adopt a Heritage project of the central government. A MoU was signed in this regard.

About Narayankoti temple
- Narayana Koti is a group of temples dedicated to Lakshmi Narayana which is associated with Pandavas.
- The mention of this temple group is also found in Kedarkhand
- It is located in Rudraprayag district of Uttarakhand.
- It is a major attraction for devotees visiting Rudraprayag as it's the **only place in the country where temples of all the nine planets** – Mars, Mercury, Jupiter, Venus, Saturn, Sun, Moon, Rahu and Ketu are present.
- The complex also includes the temples of Veerabhadra and Satyanarayan.
- A stone tank in the complex is called Virabhadra kund or Brahmakund.
- It is believed that these temples were constructed in the 9th century.
-

Adopt a Heritage Project

- It is an initiative of the Ministry of Tourism in collaboration with the Ministry of Culture and the Archaeological Survey of India. It was launched in September 2017 on World Tourism Day.
- **Aim:** To ensure quality & inclusive provision of amenities and facilities across heritage, natural, & tourist sites through active participation of private and public sector organizations and individuals. These organizations would be known as "Monument Mitras" for their collaboration initiative.

Objectives of the Project:

- Developing basic tourism infrastructure in and around heritage sites, monuments, natural sites and tourist sites.
- Develop facilities and amenities to improve the tourist experience at heritage sites, monuments, natural sites and tourist sites.
- Promote cultural and heritage value of the country and develop avenues to create awareness about the heritage/natural/tourist sites in the country
- Develop and promote sustainable tourism infrastructure and ensure proper Operations and Maintenance therein.
- Develop employment opportunities and support livelihoods of local communities at heritage sites.
- Private and Public Sector Companies, Trusts, NGOs and Individuals are eligible for adopting heritage site (s)/ monument (s) under this project.

Rana Punja Bhil   History & Culture

Why in the news?

- <u>Recently, a dispute in Rajasthan's Udaipur district over hoisting of a flag on the statue of Rana Punja Bhil has triggered tensions between Adivasi groups and BJP members.</u>

About Rana Punja Bhil

- Punja Bhil was a contemporary of 16th century ruler of Mewar, Maharana Pratap.
- Punja is considered to be a significant character who bolstered the strength of Pratap during his battles with Mughal emperor Akbar.
- When Maharana Pratap was readying for the battle with Akbar, the tribal Bhil community voluntarily came to his assistance and at the time the Bhil army was commanded by Punja.
- The Bhil community-classified as a scheduled tribe in Rajasthan-, is a forest dweller group has exercised significant influence in the Mewar region and throughout the past.
- The Rajput rulers of the region have forged alliances with the tribal group.

About Udaipur Bhils

- Bhils are an ancient tribe, whose history goes back to even mythologies.
- The name 'Bhil' is derived from the word villu or billu, which according to the Dravidian language is known as Bow.
- The community has always exercised a strong influence in the region due to their unmatched knowledge of the hills and forests of Mewar.
- Bhil community is classified as a scheduled tribe in Rajasthan.
- Bhil community is a forest dweller group which has exercised significant influence in the Mewar region and throughout the past.
- Bhils have always had control over the forest produce from Mewar which is rich in natural resources.
- The Bhils were also adept in guerilla warfare with bows, arrows and slingshots.
- They were a significant part of the Rajput resistance against the Mughal Army during the battle of Haldighati owing to their knowledge of the region's topography.
- The Rajput rulers consistently recognized the importance of Bhils in their kingdoms and the emblem of the Mewar royal family also has a Bhil alongside a Rajput.

Why in the news?

• Recently **three** saroops of the holy Guru Granth Sahib were brought to India from Afghanistan.

About the Saroop

• Saroop is a **physical copy of Sri Guru Granth Sahib,** also called **Bir** in Punjabi.
• Every Bir has 1,430 pages, which are referred to as Ang.
• The verses on every page remain the same.
• It was the fifth Sikh master, **Guru Arjan Dev, who compiled the first Bir of the Guru Granth Sahib in 1604,** and installed it at the Golden Temple in Amritsar.
• The tenth Sikh master, Guru Gobind Singh, added verses penned by the ninth master, his father Guru Tegh Bahadur, and compiled the Bir for the second and last time.
• It was **in 1708 that Guru Gobind Singh declared Guru Granth Sahib the living Guru of the Sikhs.**
• Sikhs believe that all the 10 Gurus were the same spirit in different bodies, and the Guru Granth Sahib is their eternal physical and spiritual form.
• Guru Granth Sahib is a compendium of hymns written by six Sikh gurus,15 saints, 11 Bhatts (balladeers) and four Sikhs.
• The verses are composed in 31 ragas.

Code of conduct to install Guru Granth Sahib

• The installation and transportation of Guru Granth Sahib is governed by a strict code of conduct called **rehat maryada.**
• Under ideal circumstances, five baptised Sikhs are required to transfer the Guru Granth Sahib from one place to another.
• As a mark of respect, the Bir of the Guru Granth Sahib is **carried on the head, and the person walks barefoot.**
• Whenever a devout sees the Bir of Guru Granth Sahib passing by, s/he removes her shoes and bows.
• A ceremonial whisk is waved high over the Guru Granth Sahib either on the move or while reading from it.
• Gurdwaras have a separate resting place for the Saroop, called **'Sukh Asan Sthan' or 'Sachkhand'** where the Guru rests at night.
• This takes place at the end of the day when the holy book is ceremoniously shut and rested.
• In the morning, the saroop is again installed in a ceremony called **'prakash'.**

Hirakud Reservoir

Why in the news?

- The Odisha Forest and Environment Department is set to begin **'Island Odyssey' and 'Hirakud Cruise'**
- **ecotourism packages** for tourists to islands inside the reservoir when COVID-19 restrictions are lifted. 'Cattle island', one of **three islands in the Hirakud reservoir**, has been selected as a sight-seeing destination.

About Hirakud Reservoir

- Hirakud is **the longest earthen Dam in the world** and stands across the mighty river, **Mahanadi**, in the Sambalpur region of **Odisha**.
- It was the **first major multipurpose river valley project** after India's Independence in 1947.
- With an area of 1,33,090 sq km, the Dam is **more than twice the area of Sri Lanka.** The main Hirakud Dam has an overall length of 4.8 km, stretching across the **Laxmidungri hills on the left** and the **Chandili Dunguri hills on the right**.
- The bulk of the Dam contains earth and concrete enough to construct a road 8 meters wide – **from Kanyakumari in the south to Kashmir in the north**, and further across from Amritsar to Assam!

Minervarya Pentali

Why is in the news?

- Researchers from University of Delhi have discovered the new frog species named Minervarya Pentali from the globally recognised Western Ghats biodiversity hotspot.

About the discovery

- The discovery was made during a comprehensive study on a considerably large, common, yet a confusing group of Indian frogs genus Minervarya (common name: Minervaryan frogs). This species is one among the smallest known Minervaryan frogs.
- The new species belonging to the family Dicroglossidae, was identified based on multiple criteria, such as external morphology, DNA and calling pattern. Researchers have named a newly-discovered frog species after former vice chancellor and renowned plant geneticist Prof. Deepak Pental.

Atlantic Meridional Overturning Circulation (AMOC)

Why in the news?

- A recent study in Nature Climate Change and the IPCC's Report (AR6) notes that the Atlantic Meridional Overturning Circulation (AMOC) is losing its stability. Modelling studies have shown that an AMOC shutdown would cool the northern hemisphere and decrease rainfall over Europe.
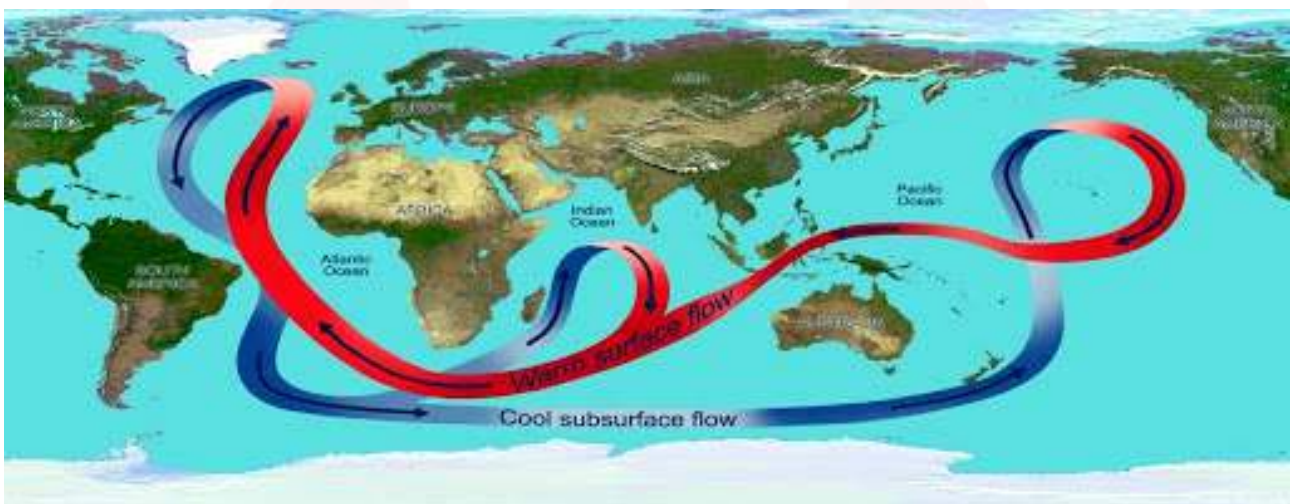
Atlantic Meridional Overturning Circulation (AMOC)

- The AMOC is a **large system of ocean currents**.
- It is the **Atlantic branch of the ocean conveyor belt or Thermohaline circulation (THC),** and distributes heat and nutrients throughout the world's ocean basins.
- AMOC **carries warm surface waters from the tropics towards the Northern Hemisphere**, where it cools and sinks.
- It then returns to the tropics and then to the South Atlantic as a bottom current. From there it is distributed to all ocean basins via the Antarctic circumpolar current.

Temperature (°C)
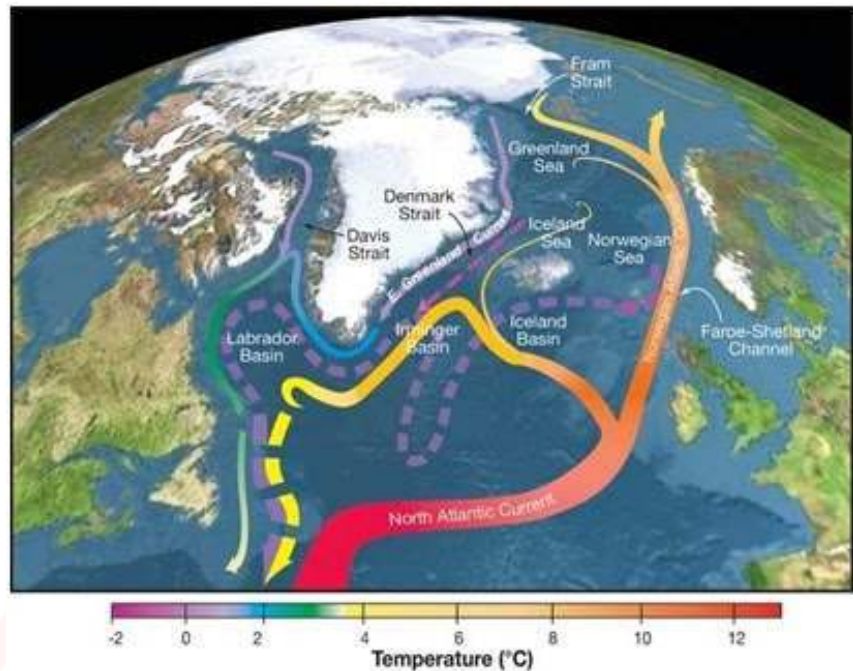
Implications of AMOC Shutdown

- **Gulf Stream, a part of the AMOC,** is a warm current responsible for mild climate at the Eastern coast of North America as well as Europe. Without a proper AMOC and Gulf Stream, **Europe will be very cold.**
- Modelling studies have shown that an AMOC shutdown would **cool the northern hemisphere and decrease rainfall over Europe.** It can also have an **effect on the El Nino**.
- AMOC collapse brings about large, markedly **different climate responses**:
  - **A prominent cooling** over the northern North Atlantic and neighbouring areas,
  - **Sea ice increases** over the Greenland-Iceland-Norwegian seas and to the south of Greenland
  - **A significant southward rain-belt migration** over the tropical Atlantic.

Causes of Slowing Down of AMOC

- **Global warming:** Climate models have predicted that global warming can cause a weakening of the major ocean systems of the world.
- A part of the Arctic's ice called "**Last Ice Area**" has also melted. The freshwater from the melting ice (eg greenland) r**educes the salinity** and **density** of the water. These changes make the ocean water lighter and so reduce the sinking in the 'conveyor belt'. Now, the water is **unable to sink** as it used to and weakens the AMOC flow.
- **Warming of Indian Ocean:** As the Indian Ocean warms faster and faster, it generates additional precipitation. With so much precipitation in the Indian Ocean, there will be **less precipitation** in the Atlantic Ocean, leading to **higher salinity** in the waters of the **tropical** portion of the Atlantic. This **saltier water in the Atlantic**, as it comes **north** via AMOC, will get cold much quicker than usual and sink faster.

Past Instances of Weakening of AMOC

- AMOC and THC strength has always been fluctuating, mainly at the late **Pleistocene time period (last 1 million yrs)**.
- Information about past fluctuations were obtained by studying **paleoclimate proxies** such as sea surface temperatures (SST), salinity, and isotope signatures from single-celled organisms called foraminifera.
- But the changes we experience in the last 100-200 years are **anthropogenic**, and these abrupt changes are
- **destabilising the AMOC**, which could collapse the system.

Ocean Currents of North Atlantic Ocean

- North Equatorial Current: It flows from the coast of Africa in the east to the West Indies in the west parallel to the equator under the influence of the trade winds.
- Antilles Current: The South Equatorial current bifurcates into two branches near Cape-de-Sao Roque (Brazil).
  - Its northern branch reinforces the North Equatorial Current.
  - Part of the combined current enters the Caribbean Sea and the Gulf of Mexico, while the remainder passes along the eastern side of the West Indies as the Antilles Current.
- Florida Current: The branch entering the Gulf of Mexico is reinforced by a great bulk of warm ocean water driven by the trade winds and by the water brought by the Mississippi river.
- Gulf Stream: Beyond the Cape Hattteras upto the Grand banks off New Foundland, it is known as the Gulf Stream.
  - The Gulf Stream receives plenty of warm, water from the Gulf of Mexico and carries it to cold areas.
- North Atlantic Drift: From the Grand Banks, the Gulf Stream flows eastward across the Atlantic under the influence of the prevailing westerly winds.
  - Here it is known as North Atlantic Drift and its speed ii quite large in the open ocean.
- Norwegian Current: The North Atlantic Drift is divided into two branches when it reaches the European Coast.
  - The northern branch reaches the British Isles from where it flows along the coast of Norway as the Norwegian current and enters the Arctic Ocean.
- Canaries Current: The second branch of the North Atlantic Drift takes a southerly turn and flows between Spain and Azores as the cold Canaries Current.
  - This current finally joins the North Equatorial Current completing the circuit in the North Atlantic.
- East Greenland Current: This current flows from north to south along the eastern coast of Greenland.
- Labrador Current: This current starts from the Baffin Bay and Davis Strait and flows along the coast of Labrador.
  - It brings a large number of icebergs from the Baffin Bay and the East Greenland Current joins it at the southern tip of Greenland.
- Sargasso Sea: It is the calm sea lying within the circuit of North Atlantic Current, Gulf Stream, North Atlantic Drift and Canaries Currents.
  - It is full of seaweeds known as Sargassumit is known as Sargasso Sea.
  - It spreads over a vast area of about 11,000 sq. km.

Genetically Modified (GM) Soyabean　　　　　　　　Environment

Why is in the news?
- With the soya prices soaring, crossing the ₹1 lakh (a tonne) mark, poultry breeders have written an SOS to the Government, asking for permission to import GM soyameal from the US, Brazil and Argentina

Need for Import
- In US, soymeal is available at around $550 a tonne, while **domestic prices in India are more than twice the rate.**
- Soyabean meal is a **key feed material for fish, shrimp, cattle, dairy** and poultry farmers.
- **Shortage in feed availability** has resulted in a surge in soymeal prices that is hurting livestock farmers.Recently high speculation activities in soya contracts on National Commodity and Derivatives Exchange Limited (NCDEX) has affected the price of eggs and chicken product in retail market.

Present Status
- India allows the import of GM soybean and canola oil but **not** the GM soya bean seeds fearing that it will contaminate non-GM varieties.
- Soymeal is the protein rich solid **left after the oil** is expelled from the seed and is used as a raw material for poultry feed.

- However, **soya de-oiled cake or meals** do not fall under these categories. It falls under the non-living organism category.

Poultry Industry and GM Soy:
- Soyameal is the protein rich solid left after the oil is expelled from the seed and is used as a raw material for poultry feed.
- India does not permit import of GM foods. But, India allows the import of GM soybean and canola oil.
- Import of GM soya bean seeds has not been approved in India.
- Fear regarding GM soya bean is that it will affect the Indian soya bean industry by contaminating non-GM varieties.

Legal Position Of Genetically Modified Crops In India
- In India, the **Genetic Engineering Appraisal Committee (GEAC)** is the apex body that allows for commercial release of GM crops.
- In 2002, the GEAC had allowed the **commercial release of Bt cotton**. More than 95 per cent of the country's
- cotton area has since then come under Bt cotton.
- Food Safety and Standards Authority of India (FSSAI) is the authorised body to regulate the imported crops.
- Use of the unapproved GM variant can **attract penal provisions** under the **Environmental Protection Act**
- **,1989.**

GM Crops:
- Traditionally, plants breeding involves exchange of genes between two plants to produce offspring that have desired traits. This is done by transferring the male (pollen) of one plant to the female organ of another.
- But a GM or transgenic crop is a plant that has a novel combination of genetic material obtained through the use of modern biotechnology.
- Bt cotton, is the only GM crop that is allowed in India, It has two alien genes from the soil
- Bacterium Bacillus thuringiensis (Bt): allows the crop to develop a protein toxic to the common pest pink bollworm.
- Ht Bt: Cotton is derived with the insertion of an additional gene, from another soil bacterium, which allows the plant to resist the common herbicide glyphosate.
- In Bt brinjal, a gene allows the plant to resist attacks of fruit and shoot borers.
- In DMH-11 mustard, genetic modification allows cross-pollination in a crop that self-pollinates in nature

Swinhoe's Softshell Turtle   Environment

Why in the news?
- Conservation efforts have been taken to save the world's most endangered turtle- the Swinhoe's Softshell Turtle from extinction.

About the turtle
- Swinhoe's softshell turtle (Rafetus swinhoei) also known as the Hoan Kiem turtle locally or Yangtze giant softshell turtle, are of special cultural significance in Vietnam.
- These are the largest freshwater turtle species in the world.
- These turtles are grey with light gray or yellow spots and inhabit wetlands and large lakes.
- They play an important role to the seafloor biosystem, where they contribute by enriching soil nutrients and facilitating seed dispersion.
- They are hunted for food and used as an ingredient in traditional medicine.
- It has been listed as 'Critically Endangered' on IUCN Red List and in Appendix II of CITES.

- The India Plastics Pact, the first in Asia, will be launched in September at the **Confederation of Indian Industry (CII)** Annual Sustainability Summit.

About India Plastics Pact

- **The India Plastics Pact is an ambitious, collaborative initiative that aims <u>to bring together businesses, governments and NGOs across the whole value chain to set time-bound commitments to reduce plastics from their value chains.</u>**
- **The India Plastics Pact aims to promote public-private collaborations that enable solutions to eliminate the plastics we do not need, bring innovation to packaging design, and to capture the value of the plastics we use.**
- **The Pact aims to <u>transform the current linear plastics system into a circular plastics economy that will:</u>**

India's plastic waste

- **9 .46million tonnes of plastic waste India generates annually**
- **40 %plastic waste goes uncollected**
- **43 %all plastics produced in India are used for packaging, majority of them being single-use.**

Global Scenario

- 2019 report by Center for International Environmental Law suggests that by 2050, **GHG emissions from plastic could reach over 56 gigatonnes** (10-13% of remaining carbon budget).
- Mismanagement of more than 7.7 billion metric tonnes of plastic waste globally over the next 20 years which is equivalent to 16-times the weight of the human population.

Features of the fact

- **The Pact will create a unified national framework for a circular economy for plastics with aligned targets and associated reporting.**
- **It will provide a platform for collaboration, learning and tangible action.**
- **All stakeholders will support a joint set of ambitious and time-bound targets, ensuring that this collaboration will drive significant change by 2030.**
- **The Indian Plastics Pact will also build on the positive work started by other initiatives and help scale up and disseminate good practice more.**

<u>**Global Efforts To Tackle it**</u>

- 1972 Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matter (or the London Convention).
- Protocol to the International Convention for the Prevention of Pollution from Ships (MARPOL).
- Glo Litter Partnerships Project (Launched by the IMO)

<u>**Initiatives of India**</u>

- The Plastic Waste Management Rules, 2016 clearly stipulate that urban local bodies (ULBs) should ban less than 50 micron thick plastic bags and not allow usage of recycled plastics for packing food, beverage or any other eatables.
- The Rules also require that local bodies should provide separate collection, storage and processing of plastic waste in their areas.
- The government has set an ambitious target of eliminating single-use plastics by 2022.
- India is a signatory to MARPOL (International Convention on Prevention of Marine Pollution).
- In addition, the Prevention of Marine Pollution is also dealt with by Merchant Shipping Rules, 2009 framed under the Merchant Shipping Act, 1958.
- Ban on Single-Use Plastics in a bid to free India of single-use plastics by 2022.

Why is in the news?

- A Centre for Science and Environment study has found that ozone levels are exceeding the permitted levels even during winter in Delhi-NCR, making the **smog more "toxic"**.

Key Findings of the study

- Ozone is now a **round-the-year problem** requiring urgent action and the situation demands refinement of a Clean Air Action Plan to add strategies for ozone mitigation, with stronger action on vehicles, industry and waste burning.
- Despite the pandemic and lockdowns, more days & locations witnessed higher and longer duration of ozone spells.
- Contrary to the notion that ozone, produced photochemically from interaction between gases in the presence of sunlight, is predominantly a summer phenomenon, the analysis finds the gas has emerged as an equally strong concern during winter as well.

About Ozone Pollution

- **Tropospheric ozone** (often termed "bad" ozone) is man-made, a result of air pollution from internal combustion engines and power plants.
- **Automobile exhaust and industrial emissions** release a family of nitrogen oxide gases (NOx) and volatile organic compounds (VOC), by-products of burning gasoline and coal.
- **NOx and VOC combine chemically** with oxygen to form ozone during sunny, high-temperature conditions of late spring, summer and early fall.
- Photochemical smog is created when sunlight reacts with nitrogen oxides and at least one volatile organic compound (VOC) in the atmosphere. This kind of smog requires neither smoke nor fog.

Ozone

- Ozone is an important gas in the atmosphere, which is actually **a type of oxygen molecule** consisting of **three**, instead of two, atoms.
- It forms less than **0.00005% by volume** of the atmosphere and is **unevenly distributed**.
- It is **between 20 km and 25 km altitude** that the greatest concentrations of ozone are found. It is formed at higher altitudes and transported downwards.
- It occurs naturally in the **stratosphere and absorbs harmful ultraviolet rays** of the sun.
- However, at the **ground level**, it is a **pollutant (Greenhouse gas)** with highly toxic effects.
- Vehicles and industries are the major sources of ground-level ozone emissions.
- Carbon monoxide and Nitrogen dioxide play a major role in converting O_2 to O_3.
- Ozone makes our eyes itchy, and watery. It lowers our resistance to cold and pneumonia.

Oxfam in its report has said that 'net zero' carbon targets that many countries have announced may be a dangerous distraction from the priority of cutting carbon emissions.

About Net-Zero Mean

- Net-zero, which is also referred to as carbon-neutrality, does not mean that a country would bring down its emissions to zero. That would be gross-zero, which means reaching a state where there are no emissions at all, a scenario hard to comprehend. Therefore, net-zero is a state in which a country's emissions are compensated by absorption and removal of greenhouse gases from the atmosphere.

Key Findings Of The Report

- The 'net zero' schemes are a Land-hungry scheme. If the challenge of change is tackled only by way of planting more trees, then about **1.6 billion hectares of new forests would be required** to remove the world's excess carbon emissions by the year 2050.

- If the entire **energy sector** -whose emissions continue to soar- were to set similar 'net-zero' targets, it would require an **area of land nearly the size of Amazon rainforest**, equivalent to a third of all farmland worldwide.
- Significantly, if only **land-based methods to deal with climate change** are used, **food prices** are expected to rise even more. Oxfam estimates that they could rise by 80 % by the year 2050.
- To limit global warming below 1.5°C and to prevent irreversible damage from climate change, the world needs to collectively be on track and should aim to **cut emissions by 45 per cent by 2030 from 2010 levels.**
- Currently, countries' plans to cut emissions will only lead to a **1% reduction by the year 2030**.
- The report emphasises that reducing emissions cannot be considered a substitute for cutting emissions,
- "and these should be counted separately.

India's Objections

- India is the only country **opposing this target** because it is likely to be the most impacted by it. Over the next two to three decades, India's emission is likely to grow at the fastest pace in the world. No amount of afforestation or reforestation will be able to compensate for the increased emissions. **According to India, the net-zero goal does not figure in the 2015 Paris Agreement.** India is arguing that instead of opening up a parallel
- discussion on net-zero targets outside the Paris Agreement framework, countries must focus on delivering on what they have already promised.

Countries with net-zero targets

- New Zealand: The New Zealand government passed the Zero Carbon Act in 2019, which committed the country to zero carbon emissions by 2050 or earlier, as part of the country's attempts to meet its Paris climate accord commitments.
- United Kingdom: The UK's parliament passed legislation to reduce the UK's net emissions of greenhouse gases by 100 % relative to 1990 levels by the year 2050.
- United States: US president Joe Biden said that the country will cut its greenhouse gas emissions by at least 50 percent below 2005 levels by 2030.
- In the US, a bipartisan organization called World War Zero was also launched in 2019 to bring together unlikely allies on climate change and to reach net-zero carbon emissions in the country by 2050.
- European Union: The European Union announced the plan "Fit for 55", which is to cut emissions by 55 percent below 1990 levels by 2030.
- China: China also announced that it would be a net-zero emitter by the year 2060 and would not allow emissions to peak beyond what they are in 2030.

Why in the news?

- Recently, the NITI Aayog and World Resources Institute India(WRI) jointly launched 'Forum for Decarbonizing Transport' in India as part of the NDC-Transport Initiative for Asia (NDC-TIA) project.
- About the Forum
- It aims at bringing down the peak level of GHG emissions (transport sector) in Asia (in line with a well below 2-degree pathway), resulting in problems like congestion and air pollution.
- The NDC-TIA India component focuses on developing a coherent strategy of effective policies and the formation of a multi-stakeholder platform for decarbonizing transport in the country.
- Through this forum, the WRI India team, along with NITI Aayog and other project partners, will work in close coordination with all these stakeholders to formulate strategies and develop appropriate business models to accelerate electric mobility in India.
- The forum will also provide a platform to initiate dialogues for the development of uniform policies and help achieve specific results in reducing emissions from the transport sector.
- The forum is a defining milestone for the electric mobility ecosystem in the country.
- It will bring together CEOs, researchers, academics, multilateral agencies, financial institutions as well as the Central and state governments on a common platform.

NDC-Transport Initiative for Asia (NDC-TIA)-2020-2023

- It is a joint programme of seven organisations that will engage China, India, and Vietnam in promoting a comprehensive approach to decarbonizing transport in their respective countries.
- The project is part of the International Climate Initiative (IKI).
- The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) support the initiative on the basis of a decision adopted by the German Bundestag.
- NITI Aayog is the implementing partner for the India component of the project.
- The NDC-TIA aims to promote a coherent strategy of effective policies for decarbonising transport co-ordinated among various sector ministries, civil society, and the private sector.
- The goal is to enable the countries' transport sectors to contribute to achieving their Nationally Determined Contributions (NDCs) and increase ambition in transport sections of long-term strategies and 2025 NDCs.
- As a regional initiative, the project will disseminate knowledge in Asia and at the global level.
- It will disseminate and share experiences at international dialogue platforms such as the United Nations Framework Convention on Climate Change (UNFCCC) process.

Brunt Ice Shelf   Environment

Why in the newS?
- An iceberg, nearly the size of Delhi, has been floating in Antarctica's Weddell Sea, threatening to collide with the Brunt Ice Shelf that it first broke from earlier this year.

About Brunt Ice Shelf
- The Brunt Ice Shelf **borders the Antarctic coast of Coats Land between Dawson-Lambton Glacier**and Stancomb-Wills Glacier Tongue.
- It was **named by the UK Antarctic Place-names Committee after David Brunt**, British meteorologist, Physical Secretary of the Royal Society, 1948–57, who was responsible for the initiation of the Royal Society Expedition to this ice shelf in 1955.
- It **was the location of the base of the Royal Society Expedition, 1955–59 which was taken over as the British Halley Research Station**/British Antarctic Society's Halley VI observatory..

Kanal Istanbul   Environment

Why in the newS?
- he Kanal Istanbul, an under-construction shipping route, is fast gaining prominence as a major divisive issue in Turkey. It is being seen as a lifeline for President Recep Tayyib Erdogan in the 2023 elections.

About the canal
- The proposed canal **connects the Black Sea and the Sea of Marmara.**
- The project would cost $15 billion, and would be 45km long & 21m deep, and would be constructed in six years.
- The planned canal will **run parallel to the Bosphorus Strait**, a natural waterway that separates Europe and Asia.

Kigali Amendment to the Montreal Protocol   Environment

Why in the news?
- India has decided to ratify Kigali Agreement. Negotiated in 2016, Kigali agreement is a key amendment to the 1989 ozone-saving Montreal Protocol.

Significance for India:
- **India became a party** to the Montreal Protocol on Substances that Deplete the Ozone Layer **in June 1992** and since then has ratified the amendments to the Montreal Protocol. India **has successfully met the phase-out targets of all the Ozone Depleting Substances** as per the Montreal Protocol Schedule.

- India is **one of the first countries in the world to launch a cooling action plan in 2019**. This comprehensive plan is aimed at reducing cooling demand, enabling refrigerant transition, enhancing energy efficiency and better technology options with a 20-year time horizon.
  - The **signing of the Kigali Amendment is a cue for the markets to make a faster transition from HFCs to cleaner gases.**
- It would **boost domestic manufacturing and employment generation goals.**
- The ratification would signify that **India is ready to compete in the market for low-Global Warming Potential GWP (climate-friendly) refrigerants**, which will spur domestic innovation and attract international investments.
- The decision would **pave the way for India to achieve its climate change mitigation goals and cooling commitments.** India is among a small group of countries on track to meet its climate commitments under the Paris Agreement.

Targets
- The United States, China and India are in separate groups of countries, with different time schedules to phase out their HFCs and replace them with climate-friendly alternatives.
- India has to reduce its HFC use by 80% by the year 2047, while China and the United States have to achieve the same target by the year 2045 and 2034 respectively.
- India will complete its phasedown of HFCs in four steps from 2032 onwards with a cumulative reduction of 10% in 2032, 20% in 2037, 30% in 2042 and 80% in 2047.
- **Amendments** to the existing legislation framework, the **Ozone Depleting Substances (Regulation and Control) Rules** to allow appropriate control of the production and consumption of hydrofluorocarbons to ensure compliance with the Kigali Amendment **will be done by mid-2024.**

About Kigali Amendment
- The **Kigali Amendment** to the Montreal Protocol is an international agreement to gradually reduce the consumption and production of hydrofluorocarbons (HFCs).
- It is a **legally binding agreement** designed to create rights and obligations in international law.
- The Montreal Protocol was originally created to preserve and restore the ozone layer, and it worked.
- The Protocol was an agreement between participating countries to phase out certain ozone depleting gases. HFCs were used to replace the substances banned in that agreement because they have zero impact on the ozone. However, HFCs are powerful greenhouse gases that contribute to climate change, so this amendment adds HFCs to the list of chemicals that countries promise to phase out.
- As of July 14, 2021, 121 states and the European Union have ratified the Kigali Amendment. **The US has not ratified the amendment yet**, but in April 2021 it pledged to do so.

Kigali Agreement Important Features.
- It is a **legally binding** agreement between the signatories. And, there are non-compliance measures to ensure its implementation.
- It sets **different targets for countries depending upon the status of development**, different socio-economic constraints, and varying technological and scientific capacities.
- The Kigali Agreement upholds the principle of Common but Differentiated Responsibilities and Respective Capabilities.
- The agreement classifies the signatory parties into three as per the phase-down schedules to freeze and reduce the production of HFCs.
- The first group consists of developed countries, led by the US and the European Union countries, that would have started the phase-down of HFCs by 2019, and reduce the level to 15% of 2012 level by the year 2036.
- The second group consists of developing economies such as China, Brazil, and also some African States that will start the phase-down by 2024 and decrease it to 20% of 2021 levels by the year 2045.
- **The third group (in which India is placed)** consists of developing economies and also some of the hottest nations, that will start the phase-down by 2028 and reduce the level to 15% of 2024-26 levels by the year 2047. Examples: Pakistan, Iran, Saudi Arabia.

Implications of Kigali Agreement on India
- Indian industries using HFCs like Air-Conditioning industry, Automobiles, and refrigeration industry have some serious implications on financial and technical fronts:

- **Financial implications** – Industries have to either invest in R & D to find out the substitutes for HFCs or they have to buy patented substances and technologies from other MNCs. Consequently, the cost of production will increase which may ultimately shrink the buyer base for their products.
- **Technological implications** – Some of the developed nations have already started using substitutes of HFCs in their products and have a sound technological knowledge about their use. Without technology transfer or research, it would be difficult for domestic industries to compete with them in global as well as domestic market.

HFC
- The answer is HFO refrigerants. HFO stands for hydrofluoro-olefin. HFC refrigerants are composed of hydrogen, fluorine and carbon atoms connected by single bonds between the atoms. HFO refrigerants are composed of hydrogen, fluorine and carbon atoms, but contain at least one double bond between the carbon atoms.
- HFO-1234yf has physical properties similar to HFC-134a. Therefore, HFO-1234yf has the potential to be used in current HFC-134a systems with minimal system modifications.

Characteristics of HFO 123yf
- Low toxicity.
- Low GWP; GWP = 4.
- Zero ozone depletion potential.
- Low total contribution to climate change.
- Same operating pressures as the current HFC-134a system.

What is Montreal Protocol?
- The Montreal Protocol is a most effective international environmental treaty to phase out the Ozone Depleting Substances (ODSs) from the atmosphere.
- It came into force in 1989.
- It has 197 member parties to the protocol and become a first international treaty with complete ratification.
- It has undergone several amendments and Kigali amendment is the eighth amendment to this protocol.
- It has successfully curbed the 98% production of **chlorofluorocarbons** and other ODSs and significantly contributed to the repair of the ozone hole.

Climate Change 2021: The Physical Science Basis Report | Environment

Why is in the news?
- It is the **first part** of IPCC's Sixth Assessment Report (AR6).

Key Highlights Of The Report
- Global temperatures have already risen by about 1.1 degrees Celsius from pre-industrial times and warn that 1.5-degree-Celsius threshold was likely to be breached before 2040.
- Even if we limit temperatures to 1.5 degrees Celsius from pre-industrial levels, we will continue to see extreme weather events. Some changes are locked in, such as rising sea levels and melting glaciers, which can now no longer be reversed.
- Coastal areas will **see continued sea-level rise throughout the 21st century**, resulting in coastal erosion and more frequent and severe flooding in low-lying areas.
- G**lobal mean sea level in the Indian Ocean** is rising at 3.7 mm annually.

India Specific Findings
- **Heat Waves**
  - Heatwaves, humid heat stress and cold extremes will be more intense.
  - An increase in heat waves is marked by other emissions like aerosol. If there is a reduction in aerosols, we will see a further increase in heatwaves.
- **Changes In Monsoon**
  - Changes in monsoon precipitation are also expected, with both annual and summer monsoon precipitation projected to increase.

- **The presence of aerosols and particulate matter** due to human activity have reduced rainfall events in the Indian subcontinent. The dominant cause of the observed decrease of South and Southeast Asian monsoon precipitation since the mid-20th century is the increase in aerosols and particulate matter due to human activity.
- It is predicted that in the long-term, South and Southeast Asian monsoon and East Asian summer monsoon precipitation will increase.
- **Climate Change**
  - Flash floods, sizzling temperatures, droughts and intense cyclones are likely to be commonplace in India because of climate change.
  - **Melting of glaciers in the Hindu Kush-Himalayas**, the consequent rising of the sea level and regular and **more intense tropical cyclones** in South Asia may devastate parts of the region unless drastic measures to cut carbon emissions are put in place.

Milky Seas effect   Environment

Why in the news?
- Scientists are using new satellite technology **Day/Night Band** to find glow-in-the-dark milky seas of maritime lore.

About Milky Seas
- **Milky seas** are also called mareel. It is a luminous phenomenon in the ocean, in which large areas of seawater appear to glow translucently (in varying shades of blue). **Such occurrences glow** brightly enough at night to be visible from satellites orbiting Earth.

Reason for the Milky Sea Effect:
- **Till now,** only one research vessel has encountered a milky sea. That crew collected samples and found a strain of luminous bacteria (called **Vibrio harveyi**) colonizing algae at the water's surface.

Purpose of the Glow
- Luminous bacteria cause the particles to glow when they colonize. Researchers also think that the purpose of this glow could be to attract fish that eat them.
- These bacteria thrive in the guts of fishes, so when their populations get too big for their main food supply, a fish's stomach makes a great second option. **Example:** If you go into a refrigerated fish locker and turn off the light, you may notice that some fish emit a greenish-blue glow – this is bacterial light.

Mumbai Climate Action Plan (MCAP)   Environment

Why in the news?
- The Brihanmumbai Municipal Corporation (BMC) is drafting a Mumbai Climate Action Plan (MCAP) in a bid to tackle climate challenges.

About Mumbai Climate Action Plan
- Amid warnings of climate change leading to extreme weather events in the city, the civic body has started preparing the Mumbai Climate Action Plan (MCAP).

Focus areas
- Sustainable waste management
- Urban greening and Biodiversity
- Urban flooding and Water Resource Management
- Building Energy Efficiency
- Air Quality and
- Sustainable Mobility
- The plan is expected to be ready by November ahead of the United Nations Climate Change (COP26) conference at Glasgow, Scotland.

Why in the news?

- The Lok Sabha has passed the Bill to formalize the Commission for Air Quality Management For National Capital Region and Adjoining Areas.

Highlights of the Bill

- The monitoring and management of air quality in the Delhi-NCR region has been done in pieces by multiple bodies such as
    - The Central Pollution Control Board (CPCB);
    - The state pollution control boards;
    - The state governments in the region, including Delhi, Haryana, Uttar Pradesh, and Rajasthan, and
    - The Environment Pollution (Prevention and Control) Authority (EPCA) of the National Capital Region
- They are monitored by the Union Ministry of Environment and Forests and Climate Change (MoEF), and the Supreme Court which monitors air pollution as per the judgment in 'M C Mehta v/s Union of India' case in 1988.
- The bill seeks to create an overarching body to consolidate all monitoring bodies.
- The bill aims to bring them on one platform so that air quality management can be carried out in a more comprehensive, efficient, and time-bound manner.
- The bill seeks to relieve the Supreme Court from having to constantly monitor pollution levels through various cases.

About Commission for Air Quality Management in NCR

- It has replaced the Supreme Court-appointed Environment Pollution (Prevention and Control) Authority (EPCA).
- It will concentrate on improving air quality during winter in particular and suggest measures to mitigate pollution throughout the year.

Powers of Commission for Air Quality Management in NCR

- The Commission is the most powerful air pollution monitoring body set up by the Centre to date.
- The rulings by the commission on air pollution will override anything contained in any other law.
- The powers of the commission will also supersede that of any other body in matters of air pollution.
- The orders of the commission will prevail in cases where conflict may arise between orders or directions issued by the other state governments, state pollution control boards or even the CPCB.
- It will have the power to take measures, issue directions and entertain complaints for the purpose of protecting and improving the quality of air in the National Capital Region.
- It will also coordinate action taken by states on air pollution and will lay down parameters for air quality and emission or discharge of environmental pollutants.
- It will also have powers to restrict industries in any area, carry out random inspections of any premises including factories and be able to close down an industry or cut its power and water supply in case of non-compliance.
- It will also be monitoring the measures taken by the states to prevent stubble burning.

Composition of Commission for Air Quality Management in NCR

- It will be headed by a full-time chairperson with:
    - Experience of not less than 15 years in the field of environmental protection and pollution control; or
    - Having administrative experience of not less than 25 years
- The members of the commission will also comprise of:
    - An official from the Environment Ministry;
    - Five ex-officio members who are either chief secretaries or secretaries from Delhi, Punjab, Haryana, Rajasthan and Uttar Pradesh;
    - One full-time member who is or has been a joint secretary;
    - Three full-time independent technical members who are experts in air pollution;
    - One technical member each from the Central Pollution Control Board and Indian Space Research Organisation;

- Three members from non-governmental organisations who deal in air pollution; and
- One representative of the National Institution for Transforming India
- It will also have three members, being stakeholders from sectors such as agriculture, industry, transport or construction apart from representatives of several ministries.
- The commission will have at least three sub-committees i.e. monitoring and identification, safeguarding and enforcement, and research and development.

Concerns associated with Commission for Air Quality Management Bill
- The protests against a section of the Bill that proposes penalization for stubble burning had started during the farmers' protests when unions had raised their voices against it.
- The offenses earlier had a penal provision of imprisonment of upto 5 years and a fine of Rs 1 crore which is the stiffest penalty that the Ministry has issued on air pollution offenses so far.
- The Clause 14 of the Act says that the provisions of this section shall not apply to any farmer for causing air pollution by stubble burning or mismanagement of agricultural residue.
  - It also says that the commission may impose and collect environmental compensation from farmers causing air pollution by stubble burning, at such rate and in such manner, as may be prescribed.
- The experts have criticized the overwhelming number of bureaucrats in the commission, with only a token representation of environmental bodies and non-governmental groups.
- The Act further says that no civil court will have jurisdiction to entertain any suit, proceeding or dispute pertaining to or arising out of the actions taken or directions issued by the commission.
  - The orders of the commission can only be contested before the National Green Tribunal.
- The environmentalists believe that it restricts legal action that can be taken on environmental matters as citizens so far could approach the Supreme Court and other courts directly with these issues.

Concerns associated with Laws preventing Air Pollution in India
- **Limited geographical extension of laws:** It is extended to the Capital of Delhi, NCR and adjoining states (Punjab, Rajasthan, Haryana and Uttar Pradesh) and it is a major drawback to the cause as it deprives fellow citizens of their right to clean air.
- **Limiting adjudication to the National Green Tribunal (NGT):** is concerning as members of both the Commission and the NGT will be appointed by the Ministry of Environment, Forest and Climate Change (MoEFCC).
- **Restriction on payment on fines:** It flouts the international principle of "polluter pays" by restricting payment of fines to Rs 1 crore.
  - It enables bigger industries to access a creative loophole, wherein they can get away with a limited fine instead of a proportionate penalty.
- **Outdated laws preventing Air Pollution:** The law has seen a decline in its relevance, even as Indian cities climbed to top positions in global air pollution assessments. The law is commonly described as "toothless" and as pollution spikes in the winter season, parliamentarians, lawyers or activists demand amendments to it or to replace it with a new law, usually to add powers of enforcement.
- **Many sources of pollution not covered under the laws:** One of the criticisms of the Air Act has been that it has mainly focused on large and obvious sources of pollution like factories and power plants and did not cover dispersed sources of pollution like landfills, agricultural fields, vehicles and households – which have emerged as sources of air pollution.

Climate Change 2021 Report: IPCC Environment

Why in the news?
- Recently, the Inter-governmental Panel on Climate Change (IPCC) in its Sixth Assessment Report has tried to make a case for immediate cuts on global greenhouse gas emissions.

IPCC Report Findings on India
- India is the world's third-biggest emitter of greenhouse gases but its emissions per head are low owing to its large population of 1.3 billion.
- The report says heat waves and humid heat stress will be more intense and frequent in the 21st century in India.

- The report also noted that the changes in monsoon precipitation are also expected, with both annual and summer monsoon precipitation projected to increase.
- The report provides for the Indian subcontinent that the heat extremes have increased while cold extremes have decreased, and these trends will continue over the coming decades.
- In the Indian Ocean, the sea temperature is heating at a higher rate than other areas, and therefore may influence other regions.
- The South West Monsoon has declined over the past few decades because of the increase of aerosols.
- The coastal areas will see continued sea-level rise throughout the 21st century, resulting in coastal erosion and more frequent and severe flooding in low-lying areas.

Causes of Climate Change in Indian Subcontinent
- The report also says there is now "unequivocal" evidence that global warming was being caused by human activities.
- The main finding of the report is that climate change is a fact, warming is a fact and that the warming has taken place because of human influence is now well established
- The dominant cause of the observed decrease of South and Southeast Asian monsoon precipitation since mid-20th century is the increase in aerosols and particulate matterdue to human activity.
- The report says the presence of aerosols and particulate matter due to human activity has influenced rainfall events in the Indian subcontinent.

IPCC Report on Global Context
- The climate change has affected every region on the planet and the report found that over the next 20 years, global temperature is expected to reach or exceed 1.5°C of warming.
- Unless there are rapid and drastic reductions in emissions, limiting global warming by 1.5°C to 2°C will be beyond reach.
- According to the report, emissions of greenhouse gases from human activities are responsible for approximately 1.1°C of warming since 1850-1900.

Intergovernmental Panel on Climate Change (IPCC)
- An intergovernmental body of the United Nations (UN).
- Established by World Meteorological Organization (WMO) and United Nations Environment Programme (UNEP) in 1988
- Membership: Open for all the members of the WMO and UN.
- Function of IPCC:
    - It provides objective scientific information in order to understand human- induced climate change.
    - It also covers natural, political & economic impacts of these anthropogenic climate changes and possible response options.
    - IPCC does not carry out its own original research.
    - It does not monitor climate or related phenomena itself.
    - However, it conducts a systematic review of published literature and then produces a comprehensive assessment report.

Deepor Beel   Environment

Why in the news?
- Recently, the Ministry of Environment, Forest and Climate Change notified the eco-sensitive zone (ESZ) of the Deepor Beel Wildlife Sanctuary. The notification specified an area "to an extent varying from 294 metres to 16.32 km" as ESZ.

About the sanctuary
- It is a permanent **freshwater lake**, in a former channel of the Brahmaputra River.
- The name Deepor Beel is derived from the Sanskrit word dipa which means elephant, -r means "of" and bil means

wetland or large aquatic body in Assamese language, inhabited by elephants.

- It is claimed that Beel was an important dockyard of the Tai-Ahom as well as the Mughals.
- Aquatic vegetation include Giant Water Lily, water hyacinth, aquatic grasses, water lilies and other submerged, emergent and floating vegetation.
- The beel is a natural habitat to many varieties of birds and largest congregations of aquatic birds can be seen, particularly in winter, like Spot-billed pelican, lesser adjutant stork, Baer's pochard, greater adjutant stork, Siberian crane.
- It is **Assam's only Ramsar site**.
- Considering the richness of the bird varieties found in the beel, the BirdLife International has declared Deepor Beel as an **Important Bird Area (IBA)** with high priority for conservation.

The Climate Crisis Is a Child Rights Crisis Report   Environment

Why in the news?
- UICEF's 'The Climate Crisis Is a Child Rights Crisis report' Introduced the Children's Climate Risk Index recently.

About children's Climate Risk Index
- The climate crisis is a child rights crisis presents the Children's Climate Risk Index (CCRI).
- It uses data to generate new global evidence on how many children are currently exposed to climate and environmental hazards, shocks and stresses.
- It is a composite index which brings together geographical data by analyzing the exposure to climate and environmental hazards, shocks and stresses and child vulnerability.
- It helps to understand and measure the likelihood of climate and environmental shocks or stresses leading to the:
- Erosion of development progress; and
- Deepening of deprivation and/or humanitarian situations affecting children or vulnerable households and groups
- It provides the first comprehensive view of children's exposure and vulnerability to the impacts of climate change to help prioritize action for those most at risk and ultimately ensure today's children inherit a liveable planet.

India's position in Children's Climate Risk Index
- India is among four South Asian countries where children are most at risk of the impacts of climate change threatening their health, education, and protection.
- The index has placed India as one of the 33 extremely high-risk countries withflooding and air pollution being the repeated environmental shocks.
- It is estimated that more than 600 million Indians will face 'acute water shortages' in the coming years.
- It stated that twenty-one of the world's 30 cities with the most polluted air in 2020 were in India.
-

Centrally Sponsored Scheme for Fast Track Special Courts (FTSCs)

Why in the news?

- **Union Cabinet has approved the continuation of 1023 Fast Track Special Courts (FTSCs) including 389 exclusive POCSO Courts as a Centrally Sponsored Scheme from April 2021 to March.2023.**

About the scheme

- The Scheme was launched on 02nd October 2019.
- The scheme is being implemented by the Department of Justice of the Ministry of Law and Justice.
- Funding: Rs. 1572.86 crore (Rs.971.70 crore as Central Share and Rs.601.16 crore as State share).
- Central Share is to be funded from Nirbhaya Fund.
- Currently covering 28 States, it is proposed to be expanded to cover all 31 states which are eligible to join the Scheme.
- It is supporting the efforts of State/UT Governments for providing time bound justice to hapless victims of sexual offences in the country including the remote and far – flung areas.

About fast track courts

- Fast track courts are organized with the sole purpose to dispense Justice as expeditiously as possible by conducting proceedings preferably on a day to day basis.
- They have a better clearance rate as compared to the regular courts and hold speedy trials.
- Besides providing quick justice to the hapless victims, it strengthens the deterrence framework for sexual offenders.
- The cases already filed before the concerned Court (i.e. particular jurisdiction) will be transferred to FTC for speedy disposal.
- The FTCs deal with cases of heinous nature including cases related to crime against women, child trafficking under POCSO Act 2012, crime against senior citizens, crime against the disabled, and heinous crimes etc.

E-Prisons Project

Why in the news?

- Recently, the Ministry of Home Affairs has provided financial assistance of Rs.99.49 crores to the States and Union Territories (UTs) for E-Prisons Project.

About E-Prisons Project

- It aims at computerization of the functioning of prisons in the country.
- It has been operationalised in all States and Union Territories.
- It is developed by National Informatics Centre (NIC), Ministry of Electronics & IT (MeitY).
- It is cloud based product designed with easy to use GUI and embedded with a comprehensive security features.
- It can be easily adopted by any state prisons department with minimum customization efforts since all the possible customization features are parameterized and can be configured by the users.

Purpose of E-Prisons Project

- The e-Prisons data has been integrated with Police and Court system under the Inter-operable Criminal Justice System.
- The e-Prisons uses data maintained by the States and Union Territories on the National Prisons Information Portal as per protocols notified for e-Prisons.
- The system can be accessed through the secure National Informatics Centre (NIC) network, exclusively by the authorized officials of Law Enforcement Agencies and Prisons, through Inter-operable Criminal Justice System (ICJS).
- The scope of this project is to computerize and integrate all the activities related to prison and prisoner management in the jail.

- It provides vital information about the inmates, lodged in the prisons, in real time environment to the prison officials and other entities, involved in Criminal Justice System.
- It also facilitates online visit request and grievance redressal.

Components of E-Prisons Project
- e-Prisons MIS: Management Information System used at the prisons for their day to day regular activities; The major modules of ePrisons MIS are:
  - Prisoner Information Management System (PIMS);
  - Visitor Management System (eVisitor);
  - Hospital Management System (eHospital);
  - Legal Aid Management System;
  - Inventory Management System;
  - Prison Management System (PMS);
  - Police Intelligence System;
  - Court Monitoring; and
  - Kiosk Information
- NPIP: National Prisons Information Portal is a citizen centric portal showing statistical data of various prisons in the country
  - Visitors can book there visit request to meet their ward inside the prison through this portal;
  - Grievances with respect to their wards inside the prisons can also submitted through the portal; and
  - This portal also provides with inmate tracking facilities in a secured way to various investigating agencies.
- Kara Bazaar: Portal for showcasing and selling the products manufactured in various prisons of the country by inmates.
  - Necessary platform required for on boarding for all the state prison departments are in place.

About Inter-operable Criminal Justice System (ICJS)
- It is a common platform for information exchange and analytics of all the pillars of the criminal justice system comprising of Police, Forensics, Prosecution, Courts & Prisons.
- It enables a nationwide search on police, prisons & courts databases across all States/ UTs in the country.
- It is invested under the CCTNS project of the Ministry of Home Affairs.
- Its aim is to reduce errors and time taken in sharing of necessary information between the pillars, which often lead to larger challenges.

Tribunal Reforms   Polity and Governance

why in the news?
- The Tribunals Reforms Bill, 2021 was passed in Lok Sabha. Recently, the Supreme Court has challenged the government to produce material showing its reasons for introducing the Tribunal Reforms Bill of 2021. The Bill replaces the Tribunals Reforms (Rationalisation and Conditions of Service) Ordinance, 2021 which was quashed by the Supreme Court.

Need For The Bill
The Supreme Court recently expressed its discontentment over the functioning of tribunals.
i) **Huge Unfilfilled Vacancy: India now has 16 tribunals** including the National Green Tribunal, the Armed Forces Appellate Tribunal, the Debt Recovery Tribunal among others which suffer from crippling vacancies. In 13 tribunals, there are around 138 vacancies out of 352 posts.
ii) **Mounting Pendency**: Analysis of data of the last three years has shown that tribunals in several sectors have not necessarily led to faster justice delivery and they are also at a considerable expense to the exchequer. CAT and others tribunals had a pendency of 2.5 Lakh cases.
iii) **Conflict Of Interest:** The tribunals are not independent. The Executive holds key positions in Tribunals and the government is the biggest litigant. So, the cases might not be decided fairly.

iv) **Non-uniformity across tribunals with respect to service conditions**, tenure of members, varying nodal ministries in charge of different tribunals

v) **Bypassing the jurisdiction of the High Court** in certain Tribunals like NGT, NCLAT, CAT, etc have provisions allowing for direct appeals to the Supreme Court.

About Tribunals Reforms Bill, 2021
- It replaces a similar Ordinance promulgated in April 2021 that sought to:
  - Dissolve eight tribunals that functioned as appellate bodies to hear disputes under various statutes; and
  - Transfer their functions to existing judicial forums such as a civil court or a High Court.
- The Bill states that the Chairpersons and Members of the tribunal being abolishedshall cease to hold office.
- They will be entitled to claim compensation equivalent to three months' pay and allowances for their premature termination.
- It proposes changes in the process of appointment of certain other tribunals.

Changes brought by Tribunals Reforms Bill, 2021
- It provides for uniform pay and rules for the search and selection committees across tribunals.
- It provides for removal of tribunal members.
- It states that the central government shall, on the recommendation of the Search-cum-Selection Committee, remove from office any Chairperson or a Member, who:
  - Has been adjudged as an insolvent; or
  - Has been convicted of an offence which involves moral turpitude; or
  - Has become physically or mentally incapable of acting as such Chairperson or Member; or
  - Has acquired such financial or other interest as is likely to affect prejudicially his functions as such Chairperson or Member; or
  - Has so abused his position as to render his continuance in office prejudicial to the public interest

EIGHT TRIBUNALS DISSOLVED VIA BILL		
Act under which Tribunal was set up	Abolished tribunal	Where disputes are heard after abolition
The Cinematograph Act, 1952	Film Certification Appellate Tribunal	High Court
The Trade Marks Act, 1999	Intellectual Property Appellate Board	High Court
The Copyright Act, 1957	Intellectual Property Appellate Board	Commercial Division of High Court
The Customs Act, 1962	Customs, Excise and Service Tax Appellate Tribunal	High Court
The Patents Act, 1970	Intellectual Property Appellate Board	High Court
The Airports Authority of India Act, 1994	Airports Appellate Tribunal	■ Central government (disposal of properties on airport premises left by unauthorised occupants) ■ High Court (appeals against eviction orders)
The Control of National Highways (Land & Traffic) Act, 2002	The National Highways Tribunal	Civil Court
The Geographical Indications of Goods (Registration and Protection) Act, 1999	Intellectual Property Appellate Board	High Court

- The chairpersons and judicial members of tribunals are former judges of High Courts and the Supreme Court.
- It brings greater accountability on the functioning of the tribunals and raises questions on the independence of these judicial bodies.
- It brings in the Chief Secretary of the state and the Chairman of the Public Service Commission of the concerned state who will have a vote and Secretary or Principal Secretary of the state's General Administrative Department with no voting right.
- It provides for a four-year term of office (subject to the upper age limit of 70 years for the Chairperson, and 67 years for members).
  - It specifies a minimum age requirement of 50 years for appointment of a chairperson or a member.

Implications of cases in dissolved tribunals
- These cases will be transferred to High Courts or commercial civil courts immediately.
- There are some experts who believe that the cases might get a faster hearing and disposal if taken to High Courts.
- There are other experts who fear that the lack of specialisation in regular courts could be detrimental to the decision-making process.

Constitutional validity of tribunals in India

- Provisions for tribunals is provided through 42nd amendment by creating Part 14-A in the Constitution. It has two articles:
- **Article 323 A:** Article 323-A empowers Parliament to create Administrative Tribunals to adjudicate disputes regarding recruitment and conditions of service of persons appointed to public services at Union, State and local level or with any other authority within India.
- **Article 323 B:** Article 323-B empowers parliament or state legislatures to set up tribunals for other matters i.e. taxation, foreign exchange, import and export, Industrial and labour, Land reforms, Ceiling on urban property, Elections to Parliament and state legislatures, Rent and tenancy right.
- **General features:** While Article 323 A anticipates establishment of tribunals for public service matters only, Article 323 B contemplates establishment of tribunals for certain other matters.
- Under Article 323 A can be established only by Parliament, tribunals under Article 323 B can be established both by Parliament and state legislatures with respect to matters falling within their legislative competence.
- Under Article 323 A, only one tribunal for the Centre and one for each state or two or more states may be established.
- Article 136 of the constitution empowers the Supreme Court to grant special leave to appeal from any judgment, decree, order, determination, sentence or order passed or made by any tribunal in India.
- Article 227 enables every High Court to exercise power of superintendence over all tribunals throughout the territories over which it exercises jurisdiction.

Preventive Detention for only dealing with public order ▶ Polity and Governance

Why in the news?

- Supreme Court in a recent judgment held that Preventive detention, the dreaded power of the State to detain a person without trial, could be used **only to prevent public disorder.**

About the Key Judgement

- The court must ensure that the facts brought before it directly and inevitably lead to a harm, danger, alarm or feeling of insecurity among the general public or any section thereof at large.
- The State should not arbitrarily resort to "preventive detention" to deal with all and sundry "law and order"
- problems, which could be dealt with by the ordinary laws of the country.
- Preventive detention must fall within **Article 21** (due process of law) read with **Article 22** (safeguards against arbitrary arrest and detention) and the **statute in question**.

What is Preventive Detention?

- Under Section 151 of **Criminal Procedure Code, 1973 (CrPC),** preventive detention is action taken on grounds of suspicion that some wrong actions may be done by the person concerned.
- A police officer can arrest an individual **without orders from a Magistrate and without any warrant** if he gets any information that such an individual can commit any offense.

Preventive detention and Constitution

- Article 22 of the Indian Constitution provides protection against arrest and detention in certain cases.
- Article 22 (1) of the Indian Constitution says an arrested person cannot be denied the right to consult, and to be defended by, a legal practitioner of his choice.
- It allows for preventive detention and restriction on personal liberty for reasons of state security & public order.
- Article 22 (4) states that no law providing for preventive detention shall authorise the detention of a person for a longer period than three months unless:
- An Advisory Board reports sufficient cause for extended detention.
- Such a person is detained in accordance with the provisions of any law made by the Parliament.
- The 44th Amendment Act of 1978 has reduced the period of detention without obtaining the opinion of an advisory board from three to two months. However, this provision has not yet been brought into force, hence, the original period of three months still continues.

- Under Entry 9 of List I (better known as the 'Union List'), Parliament has the exclusive power to enact a law for preventive detention for the reasons connected with defence, foreign affairs, or security of India.
- On the other hand, under Entry 3 of List III (better known as the 'Concurrent List'), both Parliament and State Legislature have powers to enact such laws for the reasons related to maintenance of public order or maintenance of supplies or services essential to the community.
- Under Section 151 of The Criminal Procedure Code, 1973 (CrPC) preventive detention is action taken on grounds of suspicion that some wrong actions may be done by the person concerned.
- The basic difference between the two is that in case of preventive detention, it is an anticipatory measure where the person did not commit any crime and detained only on mere suspicion for committing crime in future, while punitive detention is detaining a person for committing an offence.

Safeguards Provided in Constitution

- To prevent reckless use of Preventive Detention, certain safeguards are provided in the constitution.
- A person may be taken to preventive custody only for 3 months at the first instance. If the period of detention is extended beyond 3 months, the case must be referred to an Advisory Board consisting of persons with qualifications for appointment as judges of High Courts. It is implicit that the period of detention may be extended beyond 3 months, only on approval by the Advisory Board.
- The detainee is entitled to know the grounds of his detention. The state, however, may refuse to divulge the grounds of detention if it is in the public interest to do so. Needless to say, this power conferred on the state leaves scope for arbitrary action on the part of the authorities.
- Thirdly, the detaining authorities must give the detainee earliest opportunities for making representation against the detention.

Preventive Detention Laws in India

- India got its first preventive detention law, the **Preventive Detention Act, 1950 (PDA).**
- Since then, India has periodically enacted various such laws. One of the most prominent among them is the **Maintenance of Internal Security Act, 1971 (MISA).** MISA is infamous for its use during the Emergency period in the 1970s to arrest opposition party leaders. MISA remained effective till 1978.
- Two years later, the **National Security Act, 1980 (NSA)** was enacted which continues to be effective to date.

Judiciary and the constitution

- The constitutionality of Preventive Detention Act, 1950 was challenged in the case of A.K. Gopalan V. State of Madras where a leader named A.K. Gopalan was detained in Madras jail from 1947.
- He challenged the validity of the aforesaid act as this act of state of further detaining him is in violation of Articles 13, 19 and 21 and provisions of the act are not in accordance with Article 22 enshrined under the Constitution of India.
- The case was decided by 4:1 ratio, where the majority does not recognize detention as an infringement of personal liberty under Article 21.
- Minority view in the case: Preventive detention, which is dealt with in Article 22, also amounts to deprivation of personal liberty which is referred to in Article 21, and is a violation of the right of freedom of movement dealt with in Article 19(1)(d).
- The interrelationship between fundamental rights paved the way for acknowledging privacy as a fundamental right in Justice K.S. Puttaswamy case by overruling MP Sharma and Kharak Singh ca

127th Constitution Amendment Bill (CAB)   Polity and Governance

Why in the news?

- Parliament has recently passed the Constitution (127th Amendment) Bill, 2021.

Specifics of the bill

- The 127th Constitution Amendment Bill will amend clauses 1 and 2 of Article 342A and also introduce a new clause 3. The Bill will also amend Articles 366 (26c) and 338B (9).
- The 127th Amendment Bill is designed to clarify that the states can maintain the "state list" of OBCs as was the system prior to the Supreme Court judgment. Articles 366 (26c) defines socially and educationally backward classes.

- The "state list" will be completely taken out of the ambit of the president and will be notified by the state Assembly as per the proposed Bill.
- The amendment was thought necessary because the SC in its order on Maratha reservations upheld the 102ndConstitutional Amendment Act that inserted Articles 338B and 342 A (with two clauses) after Article 342.
- Earlier it was said that the President of India, in consultation with Governors, would specify socially and economically backward classes, taking away the powers of state governments to do so.

Main Purpose of the Bill
- The Bill amends the Constitution to **allow states and union territories to prepare their own list of socially and educationally backward classes**.
- **The National Commission for Backward Classes(NCBC)** was established under the National Commission for Backward Classes Act, 1993.
- **The Constitution (One Hundred and Second Amendment) Act, 2018** gave constitutional status to the NCBC, and empowered the President to notify the list of socially and educationally backward classes for any state or union territory for all purposes.
- **The 2021 Bill amends this** to provide that the President may notify the list of socially and educationally backward classes **only for** purposes of the **central government**. This central list will be prepared and maintained by the central government.
- **Further, the Bill enables** states and union territories to prepare their own list of socially and educationally backward classes. This list must be made by law and may differ from the central list.

Consultation with the NCBC:
- **Article 338B of the Constitution** mandates the central and state governments to consult the NCBC on all major policy matters affecting the socially and educationally backward classes.
- **The Bill exempts** states and union territories from this requirement for matters related to the preparation of their list of socially and educationally backward classes.

National Commission for Backward Classes (NCBC)
- It is made under 102nd Constitutional Amendment Act, 2018.
- It had inserted Articles 338B and Article 342A (with two clauses) after Article 342.
- Articles 338B deals with the structure, duties and powers of the National Commission for Backward Classes.
- Article 342A says that the president, in consultation with the governor, would specify the socially and educationally backward classes.

Constitutional status to National Commission for Backward Classes:
- The NCBC is a body set up under the National Commission for Backward Classes Act, 1993.
- It has the power to examine complaints regarding inclusion or exclusion of groups within the list of backward classes, and advise the central government in this regard.
- The Bill seeks to establish the NCBC under the Constitution, and provide it the authority to examine complaints and welfare measures regarding socially and educationally backward classes.
- **Role of NCBC:** Look into complaints and welfare measures with regard to backward classes.

Backward classes:
- The President may specify the socially and educationally backward classes in the various states and union territories.
- He may do this in consultation with the Governor of the concerned state.
- However, a law of Parliament will be required if the list of backward classes is to be amended.

Composition and service conditions:
- The NCBC will comprise five members appointed by the President.
- Their tenure and conditions of service will also be decided by the President through rules.

Functions:
- investigating and monitoring how safeguards provided to the backward classes under the Constitution and other laws are being implemented,

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- inquiring into specific complaints regarding violation of rights, and
- advising and making recommendations on socio-economic development of such classes.
- The central and state governments will be required to consult with the NCBC on all major policy matters affecting the socially and educationally backward classes.

Annual Reports:
- The NCBC will be required to present annual reports to the President on working of the safeguards for backward classes.
- These reports will be tabled in Parliament, and in the state legislative assemblies of the concerned states.

Powers of a civil court:
- The NCBC will have the powers of a civil court while investigating or inquiring into any complaints.
- These powers include:
  - summoning people and examining them on oath,
  - requiring production of any document or public record, and
  - receiving evidence.

Right To Move, Reside Across India   Polity and Governance

Why in the news?
- **Recently, the Supreme Court has said that a person's fundamental right to reside and to move about freely anywhere in India cannot be refused on "flimsy grounds".**

About the judgement
- **The bench of Justices Indira Banerjee and V Balasubramanian was hearing an externment order, issued by a deputy commissioner of police in Maharashtra against journalist Rahmat Khan.**
- **An externment order was issued under Section 56(1)(a)(b) of the Maharashtra Police Act.**
  - **The section provides for the removal of individuals from an area, if the authorities suspect that they may commit an offence.**
- **The court said that the FIRs against Khan were filed because of his complaints and described them as "vindictive and retaliatory".**
- **The judges also clarified that sections 56 to 59 of the Maharashtra Police Act particularly applied to the elements of society that cannot be punished by penal action after judicial trial.**

Fundamental Right to Move Freely
- Article 19(1)(d) guarantees the citizen the right to move freely throughout the territory of India.
- He/she can move freely from one state to another or from one place to another within a state.
- The grounds of imposing reasonable restrictions on this freedom are two, namely, the interests of general public and the protection of interests of any scheduled tribe.
- The entry of outsiders in tribal areas is restricted to protect the distinctive culture, language, customs and manners of scheduled tribes and to safeguard their traditional vocation and properties against exploitation.
- The freedom of movement has two dimensions, viz, internal (right to move inside the country) and external (right to move out of the country and right to come back to the country).
  - Article 19 protects only the first dimension.
  - The second dimension is dealt by Article 21 (right to life and personal liberty).

What is Fundamental Right to Reside?
- Article 19(1)(e) guarantees the citizen the right to reside and settle in any part of the territory of the country.
- This right has two parts:
  - The right to reside in any part of the country, which means to stay at any place temporarily; and
  - The right to settle in any part of the country, which means to set up a home or domicile at any place permanently
- The State can impose reasonable restrictions on the exercise of this right on two grounds, namely, the interest

of general public and the protection of interests of any scheduled tribes.

- The right of outsiders to reside and settle in tribal areas is restricted to protect the distinctive culture, language, customs and manners of scheduled tribes and to safeguard their traditional vocation and properties against exploitation.
- About Article 19 of the Indian Constitution
  - Article 19(1) states that All citizens shall have the Right to Freedom (Protection of certain rights regarding freedom of speech, etc):
  - to freedom of speech and expression;
  - to assemble peaceably and without arms;
  - to form associations or unions;
  - to move freely throughout the territory of India;
  - to reside and settle in any part of the territory of India; and
  - to practice any profession, or to carry on any occupation, trade or business
- The clause (2) states that nothing in sub-clause (a) of clause (1) shall affect the operation of any existing law, or prevent the State from making any law, in so far as such law imposes reasonable restrictions on the exercise of the right conferred by the said sub-clause in the interests of:
  - The sovereignty and integrity of India;
  - The security of the State;
  - The friendly relations with foreign States;
  - Public order, decency or morality or in relation to contempt of court; and
  - Defamation or incitement to an offence
- These six rights are protected against only state action and not private individuals.
- These rights are available only to the citizens and to shareholders of a company but not to foreigners or legal persons like companies or corporations, etc.
- The State can impose 'reasonable' restrictions on the enjoyment of these six rights only on the grounds mentioned in the Article 19 itself and not on any other grounds.

Arresting Union Minister

Polity and Governance

Why in the news?

- Union minister Narayan Rane was arrested recently over his statement on Maharashtra Chief Minister Uddhav Thackeray.

Procedure to arrest a Union minister in India-

- If Parliament is not in session, a cabinet minister can be arrested by a law enforcement agency in case of a criminal case registered against him.
- As per **Section 22 A of the Rules of Procedures and Conduct of Business of the Rajya Sabha**, the Police, Judge or Magistrate would have to intimate the Chairman of the Rajya Sabha about the reason for the arrest, the place of detention or imprisonment in an appropriate form. (In case of Lok Sabha, the Speaker have to be intimidated)
- The Chairman/Speaker is expected to inform the Council if it is sitting about the arrest.
- If the council is not sitting, he/she is expected to publish it in the bulletin for the information of the members.
- In civil cases a Union minister or an MP enjoys protection from arrest 40 days before the start of a Parliament session, during its sittings and 40 days after its conclusion.
- The **privilege of freedom from arrest does not extend to criminal offences or cases of detention under preventive detention.**
- No arrest, whether of a member or of a stranger, can be made within the precincts of the House without the prior permission of the Chairman/Speaker and that too in accordance with the procedure laid down by the Home Ministry in this regard.

Why in the news?

- The Union government is facing stiff resistance over the Electricity (Amendment) Bill, 2021 even before it is introduced in Parliament.

Key features of the bill-

- The Amendment **aims to de-license power distribution and facilitate private companies' entry allowing them to compete with state-owned power distribution companies** (DISCOMS).
- Once enacted, it will **allow consumers to select a distributor of their choice.**
- The bill strengthens the regulators- Central Electricity Regulatory Commission (CERC), State Electricity Regulatory Commission (SERC).
- It also includes the **appointment of a member from a law background in every Commission**, strengthening of APTEL (Appellate Tribunal For Electricity).
- The bill has a provision for Renewable Purchase Obligation (RPO), which obligates DISCOMS to buy a certain percentage of electricity from renewable energy sources, as a percentage of the total consumption of electricity.
- It also lays a penalty for the non-compliance of RPO.
- Penalty for contravention of the provisions of the Act has been increased up to Rs 1 crore.
- There is the provision of a **universal service obligation fund,** which shall be managed by a government company.
- This fund shall be utilised to meet any deficits in cross-subsidy.
- In case of supply through pre-paid meters, security deposit will not be required.

Current status of Power distribution

- Power distribution in most of the country is currently controlled by state-owned distribution companies with some cities including Delhi, Mumbai and Ahmedabad being exceptions where private players operate power distribution. Discoms are however struggling with high levels of losses and debt.

Concerns raised by the states-

- Several states have expressed concern that private players' entry could lead to 'cherry-picking'.
- This means the private distributors may choose to supply electricity only to commercial and industrial consumers and may shun residential and agricultural consumers.
- This will be detrimental to state-owned discoms who will be left only to serve residential and agricultural needs.
- The states are also concerned with higher penalties for failure to RPO rule and the load dispatch provision.
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Why in the news?

- The Minister for Rural Development recently shared steps taken by the Ministry for the successful implementation of Saansad Adarsh Gram Yojana (SAGY) in adopted Gram Panchayats (GPs).

About Saansad Adarsh Gram Yojana

- It is a <u>village development projec</u>t under which each Member of Parliament will take the responsibility of developing <u>physical and institutional infrastructure in three villages by 2019.</u>
- The goal is to develop three Adarsh Grams or model villages by March 2019, of which <u>one would be achieved by 2016.</u> Thereafter, <u>five such Adarsh Grams (one per year) will be selected and developed by 2024</u>.

Implementation:

- The scheme will be implemented <u>through a village development plan</u> that would be prepared for every identified gram panchayat with <u>special focus on enabling every poor household to come out of poverty.</u>
- The <u>constituency fund, MPLADS, would be available to fill critical financing gaps</u>.
- The planning process in each village will be a <u>participatory</u> exercise coordinated by the <u>District Collector</u>. The MP will play an active facilitating role in this exercise.
- Adoption and adaptation of technology and introduction of innovations are critical to this programme. This will include use of <u>space application</u> and <u>remote sensing for planning</u>, <u>mobile based technology</u> for monitoring, agriculture technology for increasing productivity etc.
- At the national level, a separate, <u>real time web based monitoring system</u> will be put in place for the scheme covering all aspects and components. The Ministry will put in place a specially designed capacity building programme for Government functionaries at different levels including Gram Panchayats.
- At the <u>state level there will be an Empowered Committee headed by the Chief Secretary</u> consisting of the relevant Departments and including experts, as required with at least two Civil Society representatives.
- The <u>district Collector</u> will be the nodal officer for implementing the SAGY. He will conduct a monthly review meeting with representatives of the participating Line Departments. The Members of Parliament concerned will chair the review meetings.
- **SAGY gives focus to** <u>community participation</u>. <u>Social mobilization of village community can trigger a chain of other development activities in the village. For instance, reducing risk behaviours like alcoholism, smoking, substance abuse (drugs/tobacco/gutkha etc) among all age groups of population. Women participation in the decision-making process will be encouraged.</u>

Measures Taken For Successful Implementation

- The Ministry of Rural Development (MoRD) informed that it has developed a compilation of 127 Central Sector and Centrally Sponsored and 1806 State Schemes, that serves as a reference for MPs, District and Village level officials, for possible convergence.
- **Capacity building programmes** for officers in charge are organized periodically through National Institute of Rural Development and Panchayati Raj, Hyderabad.
- Parameters for **dynamic ranking of GPs** have been recently developed and placed on the portal to develop a spirit of competition amongst the selected SAGY GPs.
- **Review mechanism:** At national level, a separate web-based **Management Information System (MIS)** is available on SAGY website, which helps to monitor the scheme with States/UTs regularly updating the progress of implementation of projects. This helps to facilitate cross-learning and initiate corrective actions where necessary.

Challenges

- So far, only 2,111-gram panchayats have been recognized under this programme and of that, 1,618 have prepared their development plans.
- In many SAGY villages, the MPs failed to give any substantial funds from MPLADS.
- The notion of SAGY has not infiltrated down to field officials due to lack of accountability and political will.
- In some cases, where MPs have been active, some infrastructure growth has taken place, but the scheme has not made any noticeable impression.
- Lesser convergence of Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) with MPLAD was seen in certain gram pachayats.
- Apprehensions have also been raised over the quality of roads created under schemes of state governments and maintenance of rural roads under central Pradhan Mantri Gram Sadak Yojana (PMGSY).

Why in the news

- **Cabinet Committee on Economic Affairs has given its approval for the continuation of the revised Samagra Shiksha Scheme for a period of five years, i.e. from 2021-22 to 2025-26.**

About the scheme

- **Ministry/Department :** Ministry of Human Resource Development
- **Aims** at unifying learning from pre-school to class 12 levels by treating education holistically as continuum from pre-school to class 12.

Scheme:

- The scheme subsumes three existing schemes: Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shikskha Abhiyan (RMSA) and Teacher Education (TE) to treat school education holistically, from pre-school to Class XII.
- It encapsulates elements of previous scheme and focuses on digital education by giving emphasis on integration of two Ts – Teacher and Technology.

Objectives of scheme

- Provision of quality education
- Enhancing learning outcomes of students
- Bridging social and gender gaps in school education
- Promoting vocationalisation of education
- Strengthening teacher education institutions like SCERTs and Diets to improve quality of teachers

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- **Samagra Shiksha Scheme(SSA) 2.0:** The upgraded version has been aligned with recommendations of National Education Policy (NEP) 2020. Based on this, interventions incorporated are:
- **All child-centric interventions** will be provided directly to the students through Direct Benefit Transfer (DBT) mode.
- **Provision of up to Rs 500 per child** for Teaching Learning Materials for pre-primary sections in Government Schools.
- **For disabled children and children** belonging to the SC/ST community in the age bracket of 16-19 years, Rs. 2,000 will be provided per child to complete their secondary/senior secondary levels through NIOS/SOS.
- **Additional Sports grant** of up to Rs. 25000 to schools in case at least 2 students of that school win a medal in Khelo India school games at the National level.
- **The child tracking provision** has been included for ensuring the safety of students of government and government-aided schools.
- **A sum of Rs 6,000 per annum** will be extended to secondary level school students for availing transport facility
- **Provision of training** of master trainers for Anganwadi workers
- **Incinerator and sanitary pad** vending machines in all-girls hostels.

- Providing annual grant of Rs 5,000 to Rs 20,000 per school for strengthening of libraries

Why in the news?

- **India's cleanest city, Indore, has now been declared as India's first water plus city under the** Swachh Survekshan **2021.**

About Swachh Survekshan

- It is an annual survey of cleanliness, hygiene and sanitation across cities and towns in India. It was launched under Swachh Bharat Abhiyan. This abhiyan was started with the aim of making India clean and free of open defecation by October 2, 2019. The first survey was done in 2016 and covered 73 cities. By 2020, survey grown to cover 4242 cities. It was tagged as the largest cleanliness survey across the world.

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Objective of the survey
- This survey is conducted with the objective of encouraging large scale citizen participation and ensure sustainability of initiatives towards garbage free and open defecation free cities. Survey also seeks to instil the spirit of healthy competition amongst towns and cities in order to improve their service delivery to citizens.

Certification Criteria
- To get the certification, following criteria has been set:
  - dirty water should not go into any river or drain.
  - Further, 30 percent of the city's sewer water needs to be recycled and reused.
  - Public toilets must be connected to sewer lines and it must be cleaned.

Student Entrepreneurship Program 3.0 | Welfare & Schemes

Why in the news?
- Recently, the Atal Innovation Mission (AIM) of NITI Aayog has launched the third series of Student Entrepreneurship Program (SEP).

About Student Entrepreneurship Program (SEP)
- It is joint programme of Atal Innovation Mission (AIM) and La Fondation Dassault Systems in India.
- The theme of SEP 3.0 is based on the 'Made in 3D - Seed the Future Entrepreneurs Program'. It is conceptualized and rolled out in France by La Main à la Pate Foundation and La Fondation Dassault Systèmes Europe in 2017.
- As part of this program, a team from each school (6 students and a teacher) will be allocated seed funding towards:
  - Creating their own start-up;
  - Design and prototype their innovation using 3D printing;
  - Prepare marketing campaign;
  - Define product pricing; and
  - Create expansion strategy
- It consists of 14 courses that enable the participants to:
  - Understand India's entrepreneurial ecosystem;
  - Introduces the basic functional areas of management;
  - Familiarizes the nuances of creativity and innovation;
  - Explains the process of executing a business idea into a successful business model;
  - Acquaints them with the regulatory frameworks; and
  - The scaling up challenges faced by an entrepreneur

Key Features of SEP 3.0
- A total of 50 teams from 26 states are selected for the SEP 3.0.
- Top 20 teams of ATL Marathon 2019, 10 teams selected by Dassault, 10 teams from Aspirational Districts and 10 teams from Jammu, Kashmir, Ladakh and North east regions are selected.

Significance of Student Entrepreneurship Program (SEP)
- It will allow student innovators to work closely with Dassault volunteers and gain:
  - Mentor support, Prototyping and testing support, End-User feedback, Intellectual Property registration and Patenting of ideas/processes/products, Manufacturing support, and launch of the product in the market.
- It will be interaction opportunities for students and teachers, between French and Indian schools.
- The school students and teachers will have a unique opportunity to interact and collaborate with French schools and French students for cultural and technical interactions.
- It seeks to provide opportunity to school children to develop an entrepreneurial and inventive mind set, as well as suitable exposure through activities-based learning, exploration and challenges.
- The school students and teachers will have a unique opportunity to connect and interact with French schools

Atal innovation Mission (AIM)
- Launched by NITI aayog, AIM is Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.

Objectives:
- To develop new programmes and policies for fostering innovation in different sectors of the economy,
- To provide platform and collaboration opportunities for different stakeholders,
- To create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

Few Major Initiatives:
- Atal Tinkering Labs: Creating problem solving mindset across schools in India.
- Atal Incubation Centers: Fostering world class startups and adding a new dimension to the incubator model.
- Atal New India Challenges: Fostering product innovations and aligning them to the needs of various sectors/ministries.
- Mentor India Campaign: A national mentor network in collaboration with the public sector, corporates and institutions.
- Atal Community Innovation Center: To stimulate community centric innovation and ideas in the unserved /underserved regions including Tier 2 and Tier 3 cities.
- Atal Research and Innovation for Small Enterprises (ARISE): To stimulate innovation and research in the MSME industry.

Atal tinkering Labs
- They have been set up by the Atal Innovation Mission (AIM).
- **Vision:** To cultivate 1 million children in India as neoteric (modern) innovators.
- **Aim :**
    - Making the Indian education system more innovative and modern.
    - Creating a paradigm shift where children as young as 12 years of age are being introduced to the world of technology innovation.
- **Objectives:**
    - To foster curiosity, creativity and imagination in young minds;
    - To inculcate skills such as design mindset, computational thinking, adaptive learning, physical computing etc.
- **Eligibility:** Schools (minimum Grade VI - X) managed by Government, local body or private trusts/society.
- **Features:**
    - ATL is a work space where young minds can give shape to their ideas through hands-on do-it-yourself mode; and learn innovation skills.
    - Young children get a chance to work with tools and equipment to understand the concepts of STEM (Science, Technology, Engineering and Math).
    - CollabCAD was launched in ATL schools to provide students experience in creating and modifying 3D designs.

and students for cultural and technical knowledge sharing.

Samagra Shiksha Scheme

Welfare & Schemes

Why in the news?
- The Cabinet Committee on Economic Affairs approved the continuation of the revised Samagra Shiksha Scheme for a period of five years i.e., from 2021-22 to 2025-26.

About the scheme
- The Samagra Shiksha scheme is an integrated scheme for school education which covers education from pre-school to class XII.
- Launched by Department of School Education and Literacy, Ministry of Education.
- Launched in 2018, it subsumed the Centrally Sponsored Schemes of SarvaShikshaAbhiyan (SSA), Rashtriya

Madhyamik Shiksha and Abhiyan (RMSA), and Teacher Education (TE).
- The scheme treats school education by Sustainable Development Goal for Education (SDG-4).
- The scheme supports the implementation of the RTE Act and is aligned with the recommendations of NEP 2020.
- The scheme covers 1.16 million schools, over 156 million students, and 5.7 million Teachers of Govt. and Aided schools (from pre-primary to senior secondary level).

Implementation of the Scheme
- State level: It is implemented as a Centrally Sponsored Scheme through a single State Implementation Society (SIS) at the State level.
- National level: At the National level, there is a Governing Council/Body headed by the Minister of Education and a Project Approval Board (PAB) headed by the Secretary, Department of School Education and Literacy.
- The scheme ensures that all children have access to quality education.

Major interventions under the scheme
- Major Interventions: The major interventions proposed under the scheme are:
  - Universal Access including Infrastructure Development and Retention
  - Foundational Literacy and Numeracy
  - Gender and Equity
  - Inclusive Education
  - Quality and Innovation
  - Financial support for Teacher Salary
  - Digital initiatives
  - RTE Entitlements including uniforms, textbooks, etc.
  - Support for ECCE
  - Vocational Education
  - Sports and Physical Education
  - Strengthening of Teacher Education and Training
  - Monitoring
  - Program Management
  - National Component

Quality of Life for Elderly Index — Welfare & Schemes

Why in the news?
- The Quality of Life for Elderly Index, created by **Institute for Competitiveness,** was recently released by the Economic Advisory Council to Prime Minister (EAC-PM).

About Quality of Life for Elderly Index
- It has been created by the Institute for Competitiveness at the request of EAC-PM.
- It identifies the regional patterns of ageing across Indian States and assesses the overall ageing situation in India.
- The Index framework includes four pillars: Financial Well-being, Social Well-being, Health System and Income Security.
  - The eight sub-pillars are Economic Empowerment, Educational Attainment & Employment, Social Status, Physical Security, Basic Health, Psychological Wellbeing, Social Security and Enabling Environment.
- It measures the core domains of Economic, health, and social well-being of older people and provides the in-depth situation of elderly people in India.
- The report presents a deeper insight into how well India is doing to support the well-being of its ageing population.
- **The Index framework includes four pillars:**
  - Financial Well-being,
  - Social Well-being,
  - Health System and

- Income Security,
- **And eight sub-pillars:**
  - Economic Empowerment,
  - Educational Attainment & Employment,
  - Social Status,
  - Physical Security,
  - Basic Health,
  - Psychological Wellbeing,
  - Social Security and
  - Enabling Environment.

Key Findings of the Index:

Elderly Population:

- **India** is currently enjoying the demographic dividend. But the age group above the age of 65 will become the fastest-growing age group by 2050.
- **The share of elders, as a percentage of the total population** in the country, is expected to **increase from around 7.5% in 2001 to almost 12.5% by 2026**, and surpass 19.5% by 2050.
- **Further**, there will be a significantly higher proportion of women than men in the higher age cohort due to higher life expectancy.

State-wise assessment:

- **Rajasthan** is the top scorer in the aged states' category, defined as states with an elderly population of more than 5 million.
- **Himachal Pradesh leads** in the Relatively-Aged States section (below 5 million population).
- **Mizoram l**eads in the North Eastern States category and Chandigarh among all UTs.

Pillar-wise Performance:

- The **Health System pillar observes the highest national average**, 66.97 at an all-India level, followed by **62.34 in Social Well-being.**
- **Financial Well-being** observes a score of **44.7.** It is at a lower stage due to the low performance of 21 States across the Education Attainment & Employment pillar, which showcases scope for improvement.

Initiatives

- SAGE (Seniorcare Aging Growth Engine): It is a "**one-stop access**" of elderly care products and services by credible start-ups.
- **Integrated Programme for Older Persons (IPOP): To improve the quality of life of older persons by providing basic amenities** like shelter, food, medical care and entertainment opportunities, etc.
- **Rashtriya Vayoshri Yojana (RVY): Aids and assistive living devices are provided to senior citizens belonging to Below Poverty Line (BPL) category** who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities.
- **Indira Gandhi National Old Age Pension Scheme (IGNOAPS): Financial assistance is provided to persons of 60 years and above and belonging to families living BPL** as per the criteria prescribed by Government of India. Central assistance of Rs 200 per month is provided to persons in the age group of 60-79 years and Rs 500 per month to persons of 80 years and above.
- **The Pradhan Mantri Vaya Vandana Yojana**: It is a pension scheme for senior citizens that comes with guaranteed returns on monthly, quarterly, half-yearly or on an annual basis for a period of 10 years. It is exclusively available to those who are 60 years of age and above.
- **Vayoshreshtha Samman**: Conferred as a **National award**, and given to **eminent senior citizens & institutions under various categories for their contributions** on International day of older persons on 1st october.
- **Maintenance and Welfare of Parents and Senior Citizens (MWPSC) Act, 2007**: To ensure need-based maintenance for Parents and Senior Citizens and their welfare.

Global Initiatives:

- **Decade of Healthy Ageing (2020-2030):** The Decade of Healthy Ageing was endorsed by the 73rd World Health Assembly (decision making body of the World Health Organisation) in 2020.
- The **2030 Agenda for Sustainable Development** calls for leaving no one behind and for ensuring that the **Sustainable Development Goals (SDGs)** are met for all segments of society, at all ages, with a **particular focus on the most vulnerable—including older persons.**

Why in the news?
- Recently, Union Minister for Health and Family Welfare today presided over the release of National Fact Sheet Global Youth Tobacco Survey (GYTS-4), India, 2019.

Global Youth Tobacco Survey
- It is a **self-administered, school-based survey of students in grades associated with 13 to 15 years of age.**
- It is designed **to enhance the capacity of countries to monitor tobacco use among youth and to guide the implementation and evaluation of tobacco prevention and control programmes.**
- It is developed by **World Health Organization (WHO), the Tobacco Free Initiative (TFI), the United Nations Children's Fund (UNICEF) and the Office on Smoking and Health at the Centres for Disease Control and Prevention (OSH-CDC).**
- It uses a standard methodology for constructing the sampling frame, selecting schools and classes, preparing questionnaires, following consistent field procedures, and using consistent data management procedures for data processing and analysis.
- It is an important tool to assist countries in supporting WHO MPOWER, a package of six evidence-based demand reduction measures contained in the WHO Framework Convention on Tobacco Control (FCTC).

Key Highlights of the survey
- **Use of Tobacco:** Nearly one-fifth of the students aged 13-15 used any form of tobacco product (smoking, smokeless, and any other form) in their life. However, there has been a 42% decline in tobacco use in the past decade.
- **Gender wise:** The use of any form of tobacco was higher among boys than girls.
- **State-wise:** The current use of tobacco among students across the States/ UTs ranged from the highest in Arunachal Pradesh and Mizoram (58% each) to the lowest in Himachal Pradesh (1.1%) and Karnataka (1.2%).
- **Age of Initiation of Tobacco:** 38% of cigarettes, 47% of bidi smokers and 52% of smokeless tobacco users initiated the use before their 10th birthday.
- **Second-hand smoke:** 29.5% of the students were exposed to second-hand smoke (11.2% at home, 21.2% inside enclosed public places, 23.4% at outdoor public places.

Why in the news ?
- The **Ministry of Social Justice and Empowerment** recently launched the 'PM-DAKSH' **Portal** and 'PM-DAKSH' **Mobile App** which are developed in collaboration with **National e-Governance Division (NeGD)**. The scheme was launched in 2020-21.

About PM-DAKSH Yojana
- It is a **National Action Plan** for the **marginalized persons of SC, OBC, EBC, DNT, Safai karamcharies** including waste pickers.
- The **Ministry of Social Justice & Empowerment (MoSJ&E)**, caters for empowerment of the socially, educationally and economically marginalized sections of the society.
- The focus of the programme would be on **providing high quality skills through good quality institutions** so that the training can result in finding jobs or self employment ventures.
- The programme also engages with **skilling the Safai Karamcharis** including Waste Pickers, and Women so that they can engage in self-employment activities.
- It would be implemented by the three Corporations:
  - **National Scheduled Castes Finance and Development Corporation (NSFDC);**
  - **National Backward Classes Finance & Development Corporation (NBCFDC)**; and
  - **National Safai Karamcharis Finance and Development Corporation (NSKFDC)**

Objectives of PM-DAKSH Yojana

- The main purpose is to **increase the skill levels of the target youth** by providing for long term and short term skills, followed by settlement in employment/self-employment.
- Under PM-DAKSH Yojana, the **upgradation would be of the skill/process/design** so that the incomes will dramatically increase within their practicing vocations.
- A multi-pronged strategy to **enhance the competency level of the target groups and make them employable** both in self and wage-employment for their socio-economic development of the following sections of the target group:
  - Artisans may improve their **revenue generation capacities** within their practicing vocations;
  - Women may enter into self-employment thereby **financially empowering themselves** without neglecting their domestic activities; and
  - Youth may acquire **long-term training and specialization in employable vocations** giving them better standing in the job market

Methodology of Implementation of PM-DAKSH Yojana

- The DAKSH will be run through an **end-to-end IT system** that covers the entire ecosystem of the training programmes:
  - There will be a **DAKSH portal and DAKSH App** giving the areas in which training would be imparted.
  - The list of training agencies (which are already finalised by the implementing agencies) would be **pre-fed into the software.**
  - The **eligible candidates can register for training giving their Aadhaar numbers** and specify their area of interest, and also select the institution where he/she would like to take the training.
  - All candidates who are **found suitable based on the qualifications and the aptitude test would be**

PM KISAN Scheme   Welfare & Schemes

Why in the news ?

- Prime Minister Narendra Modi will release the next instalment of financial benefit provided under Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme on August 9, 2021.

About PM-KISAN scheme

- Pradhan Mantri Kisan Samman Nidhi Scheme was launched in February 2019. Under this scheme, centre government transfers an amount of Rs 6,000 per year. This amount is transferred in three equal instalments, directly into the bank accounts of all landholding farmers. Amount is transferred to all the beneficiaries irrespective of the size of their land holdings.
- PM-KISAN is a Central Sector Scheme which is 100% funded by the central government. This scheme is being implemented by the Ministry of Agriculture and Farmers Welfare.
- Responsibility of identifying the beneficiary farmer families rests with the State and Union Territory Governments.

Objective of the scheme

- PM-KISAN scheme was launched with the objective of supplementing financial needs of Small and Marginal Farmers in procuring inputs in order to ensure proper crop health and appropriate yields. It also seeks to protect farmers from

Pradhan Mantri Van Dhan Yojana (PMVDY)   Welfare & Schemes

Why in the news ?

- **Recently, the Ministry of Tribal Affairs is empowering the tribals of Jawadhu Hills of Tiruvannamalai district through Van Dhan Vikas Yojana.**

About Van Dhan Vikas Yojana

- It is an initiative of the Ministry of Tribal Affairs.

- The **TRIFED** (Tribal Cooperative Marketing Development Federation of India) is the nodal agency at National level.
- Under the scheme, a large number of tribal community owned Van Dhan Vikas Kendras (VDVKs) have been set up in predominantly forested tribal districts.
- It is a Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) & Development of Value Chain.

Objectives of Van Dhan Vikas Yojana
- It aims to tap into traditional knowledge & skill sets of tribals by adding technology & IT to upgrade it at each stage and to convert the tribal wisdom into a viable economic activity.
- It is aimed at the economic development of tribals by helping them in optimum utilisation of natural resources.
- The Van Dhan Vikas Kendras are providing skill up-gradation and capacity building training, and set up primary processing and value addition facilities in the tribal regions.

Significance of Van Dhan Vikas Yojana
- It is an initiative targeting livelihood generation for tribals by harnessing the wealth of forest.
- It has proved to be successful within a year of its implementation, with the establishment of 1,205 tribal enterprises.
- It has provided employment opportunities to 3.6 lakh tribal gatherers and 18,000 self-help groups in 22 States.

PM-KUSUM Scheme	Welfare & Schemes

Why in the news ?
- **The Union Minister for Power and MNRE** recently reviewed the implementation of PM-KUSUM Scheme.

About PM-KUSUM scheme
- PM-KUSUM refers to Pradhan Mantri Kisan Urja Suraksha evem Utthan Mahabhiyan (PM KUSUM).
- It was launched by the Ministry of New and Renewable Energy (MNRE) in 2019.
- The scheme i**s aimed at ensuring energy security for farmers in India,** along with honouring **India's commitment** to increase the share of installed capacity of **electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs).**
- PM-KUSUM was launched for farmers for installation of solar pumps and grid connected solar and other renewable power plants in the country.
- The scheme aims to add solar and other renewable capacity of 25,750 MW by 2022.

Scheme components
- **Component A-Setting up of 10,000 MW of Decentralized Grid Connected Renewable Energy Power Plants on barren land:**
  - Under this component, renewable energy based power plants (REPP) of capacity 500 kW to 2 MW will be setup by individual farmers/ group of farmers/ cooperatives/ panchayats etc
  - These power plants can also be installed on cultivable land on stilts where crops can also be grown below the solar panels.
  - The power generated will be purchased by local DISCOM at pre-fixed tariff.
- **Component B- Installation of 17.50 lakh standalone Solar Powered Agriculture Pumps:**
  - Under this Component, individual farmers will be supported to install standalone solar Agriculture pumps of capacity up to 7.5 HP for replacement of existing diesel Agriculture pumps / irrigation systems in off-grid areas, where grid supply is not available.
  - Pumps of capacity higher than 7.5 HP can also be installed, however, the financial support will be limited to 7.5 HP capacity.
- **Component C-Solarisation of 10 Lakh Grid Connected Agriculture Pumps:**
  - Under this Component, individual farmers having grid connected agriculture pumps(7.5 HP) will be supported to solarise pumps.

- The farmer will be able to use the generated solar power to meet the irrigation needs and the excess solar power will be sold to DISCOMs at pre-fixed tariff.
- **Central Financial Assistance / State Government Support**
  - **Component-A:** Procurement Based Incentive (PBI) @ 40 paise/kWh or Rs. 6.60 lakhs/MW/year, whichever is less, will be provided for the first five years by MNRE to DISCOMs, for buying the power from farmers/developers.
  - **Component-B & C:**
    - CFA of 30% of the benchmark cost or the tender cost, whichever is lower. State Government subsidy 30%; Remaining 40% by the farmer.
    - In North Eastern States, Sikkim, J&K, Himachal, Uttarakhand, Lakshadweep and A&N Islands, CFA of

Telangana Dalit Bandhu scheme high>Welfare & Schemes

Why in the news?
- Telangana Chief Minister K Chandrasekhar Rao (KCR) recently said his government is ready to spend Rs 80,000 crore to Rs 1 lakh crore for Dalit Bandhu, touted as the country's biggest direct benefit transfer scheme, to empower Dalits across the state.

Telangana Dalit Bandhu scheme
- Dalit Bandhu scheme or programme, is a movement that the state government will pursue with the Centre for nationwide implementation.
- Dalit Bandhu is the latest flagship programme of the Telangana government. It is envisioned as a welfare scheme for empowering Dalit families and enable entrepreneurship among them through a direct benefit transfer **of Rs 10 lakh per family**. This is, once implemented on the ground, going to be **the biggest cash transfer scheme in the country.**
- A Dalit empowerment programme on these lines was first announced in the state budget earlier this year.
- It was decided that 11,900 Dalit families, 100 each from 119 Assembly constituencies in the state, would be selected for cash assistance of Rs 10 lakh each without any bank guarantee to start their businesses. An initial outlay of Rs 1,200 crore was sanctioned.
- The funds allocated for the scheme would be over and above the funds earmarked for the SC Sub Plan
- The benefits of the scheme is intended to the poorest of the poor will be top priority,
- It will be implement it on a pilot basis in the Huzurabad Assembly constituency. Based on the experiences of implementation in Huzurabad, the scheme will be rolled out across the state in a phased manner.
- The financial assistance given by the government through Dalit Bandhu is free. This is not a loan. There is no chance of any middlemen in this. Eligible beneficiaries will get the assistance in their bank accounts
- The government plans to create a corpus called the **Dalit Security Fund** permanently to support the beneficiary in the event of any adversities. This fund will be managed by the district collector concerned, along with a committee of beneficiaries. A minimum amount will be deposited by the beneficiary towards this fund. The beneficiary would be issued an identity card with an electronic chip, which will help the government monitor

Halam Community   Welfare & Schemes

Why in the news?
- People of **Halam sub-tribes**, who had taken **refuge in Assam** after clashes with **Bru refugees** in north **Tripura**, recently started returning back to their home in Damcherra (**Tripura).**

About Halam Sub-tribes
- Ethnically, Halam communities (categorised as a scheduled tribe in Tripura) belong to the Kuki-Chin tribes of Tibeto-Burmese ethnic group.
- Their language is also more or less similar to that of the Tibeto-Burman family.
- Halams are also known as Mila Kuki, though they are not at all Kukis in terms of language, culture and living style.
- Halams are divided into several sub-clans which are referred to as "Barki-Halam".

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- Major sub-clans of Halams are Koloi, Korbong, Kaipeng, Bong, Sakachep, Thangachep, Molsom, Rupini, Rangkhowl, Chorai, Lankai, Kaireng (Darlong), Ranglong, Marchafang and Saihmar.
- As per 2011 Census, their total population is 57,210 and distributed throughout the State.
- Halams live in typical "Tong Ghar" specially made of bamboo and Chan grass. Apart from plain land cultivation they still practice Jhum cultivation and depend on both the activities beside other substitute works.

Bru/Reang refugees:
- In 1997, the murder of a Mizo forest guard allegedly by Bru (also known as Reangs) militants led to a violent backlash against the community, forcing several thousand of them to flee out of their home state of Mizoram to neighbouring Tripura.
- Since then around 30,000 of them have been living in refugee camps in the Jampui Hills of Tripura.
- The Bru militancy was a reactionary movement against Mizo nationalist groups who had demanded in the mid-1990s that the Brus be left out of the state's electoral rolls, contending that the tribe was not indigenous to Mizoram.
- Bru or Reang is a community indigenous to Northeast India, living mostly in Tripura, Mizoram and Assam.
- In Tripura, they are recognised as a Particularly Vulnerable Tribal Group.

Gujarat anti-conversion law   Welfare & Schemes

- The Gujarat government will be approaching the Supreme Court challenging the stay by the High Court on certain Sections of the Gujarat Freedom of Religion (Amendment) Act, 2021.
- The act seeks to stop religious conversion through interfaith marriages using force or allurement or fraudulent means.

Gujarat Freedom of Religion (Amendment) Act, 2021:
- The act includes provisions for punishment of 3-10 years in jail for forcible or fraudulent religious conversions through marriage.
- It makes amendments to the Gujarat Freedom of Religion Act, 2003.
- The amendment intends to prevent women from being "lured to marriage" for the purposes of religious conversion.

Why anti-conversion laws?
- To prevent forceful conversion: Force will include both physical force to convert a person belonging to one faith to another one, but also verbal compulsions.
  - In the Yulitha Hyde v. the State of Orissa, Orissa High Court upheld the interpretation of "force" as both physical and mental.
- To prevent inducement or allurement: Offering of any gift or gratification to convert.
- Religious conversion does not come under Fundamental Right: Religious conversion could be regulated by the state. This is the legal basis under which states create such laws.
- To limit the communities/individuals from converting from one religion to another in the name of protecting those sectors of society—namely women, children, backward castes and untouchables etc.

Issues with the new law:
- The amended law has vague terms which are against basic principles of marriage and right to propagate, profess and practice religion as enshrined in **the Article 25 of the Constitution.**
- The law even allows distant family members to file a criminal complaint.

Supreme Court on Marriage and Conversion:
1. The Apex Court of India in its several judgements has held that **the state** and the courts have no jurisdiction over an adult's absolute right to choose **a life partner.**
2. The Supreme Court of India, in both **the Lily Thomas and Sarla Mudgal cases,** has confirmed that religious conversions carried out without a bonafide belief and for the sole purpose of deriving some legal benefit do not hold water.

Why in news?

- Recently, the Union Minister of Finance has launched the Ubharte Sitaare Alternative Investment Fund.

About Ubharte Sitaare Alternative Investment Fund

- It is co-sponsored by India Exim Bank and SIDBI with a contribution of ₹ 40 crore eachhas been successfully registered with SEBI.
- The corpus of the Fund is ₹ 250 crore with a green shoe option of ₹ 250 crore.
- The Fund would invest by way of equity, and equity like products in export-oriented units, both in the manufacturing and services sectors, across the country.

Purpose of Ubharte Sitaare Alternative Investment Fund

- Its objective is to identify and invest in small and mid-size ventures in manufacturing and service industries with good export potential.
- It would make investments in export-oriented small and mid-sized companies by way of equity and equity-like products, and thereby help script a new paradigm of growth in exports.
- It would play a catalytic role in contributing to the growth of the identified companies.
- It would also have downstream benefits such as growth and diversification of India's exports, impetus to brand India, and employment generation.

Identification of companies under Ubharte Sitaare Fund

- Under the scheme, an identified company is supported even if it is currently underperforming or may be unable to tap its latent potential to grow.
- The programme diagnoses such challenges and provides support through a mix of structured support covering equity, debt and technical assistance.
- Eligible companies can be supported by both financial and advisory services by way of equity / equity-like instruments, term loans for modernisation, technology or capacity upgradation.
- Companies will be selected for support based on their unique value proposition in technology, products or processes that match global requirements.

Eligible Companies under Ubharte Sitaare Alternative Investment Fund

- Companies with a unique value proposition in technology, products or processeswhich match international requirements
- Fundamentally strong companies with acceptable financials, and outward orientation.
- Small and mid-sized companies with an ability to penetrate global markets and have an "annual turnover of up to approximately ₹500 crore.
- Companies that have a good business model, strong management capabilities and a focus on product quality.

Why in the news

- The Prime Minister has recently announced that rice distributed under various government schemes, including the public distribution system (PDS) and Midday meals, will be fortified by 2024.

About Rice Fortification

- It refers to the addition of key vitamins and minerals to increase the nutritional value of rice.
- The fortified Rice generally contains Vitamin A, Vitamin B1, Vitamin B12, Folic Acid, Iron and Zinc.
- Methods are available for the fortification: There are several methods available for the fortification of rice and the method chosen depends on the local technology available, costs and other preferences.
  - Rice can be fortified by adding a micronutrient powder to the rice that adheres to the grains or spraying the surface of ordinary rice grains in several layers with a vitamin and mineral mix to form a protective coating.
  - Rice can also be extruded and shaped into partially pre-cooked grain-like structures resembling rice grains, which can then be blended with natural polished rice.
  - Rice kernels can be fortified with several micronutrients, such as iron, folic acid and other B-complex vitamins, vitamin A and zinc.
  - Rice fortification on a national scale requires a large, cost-effective and sustainable supply of fortified kernels.

- Norms of FSSAI : According to the FSSAI norms, 1 kg fortified rice shall contain iron (28mg-42.5mg), folic acid (75-125 microgram) and Vitamin B-12 (0.75-1.25 microgram). In addition, rice may also be fortified with micronutrients, singly or in combination, at the level– zinc(10mg-15mg), Vitamin A (500-750 microgram RE), Vitamin B1 (1mg-1.5mg), Vitamin B2 (1.25mg-1.75mg), Vitamin B3 (12.5mg-20mg) and Vitamin B6 (1.5mg-2.5mg) per Kg.

WHO recommendations

- Fortification of rice with iron is recommended as a public health strategy to improve the iron status of populations, in settings where rice is a staple food.
- Fortification of rice with vitamin A may be used as a public health strategy to improve the iron status and vitamin A nutrition of populations.
- Fortification of rice with folic acid may be used as a public health strategy to improve the folate nutritional status of populations.

- **Need of fortification**
- According to the National Family Health Survey (NFHS-4):
  - 58.4% of children (6-59 months) are anemic
  - 53.1% women in the reproductive age group are anemic
  - 35.7% of children under 5 are underweight
- Also, It is estimated that 50-70% of these birth defects are preventable. One of the major causes is deficiency of Folic Acid.

Fortification in India

- Currently government is promoting fortification in following 5 food items:
- Rice, salt, edible oil, milk and wheat.
- **Rice**: Department of Food & Public Distribution (DFPD) has been running a "Centrally Sponsored Pilot Scheme on Fortification of Rice & its distribution through Public Distribution System". The scheme was initiated in 2019-20 for a three-year pilot run. This scheme will run till 2023 and rice will be supplied to the beneficiaries at the rate of Re 1 per kilogram.
  - For rice fortification, **Ministry of Consumer Affairs, Food and Public Distribution** is the nodal agency
- **Wheat**: The decision on fortification of wheat was announced in 2018 and is being implemented in 12 states under India's flagship **Poshan Abhiyaan** to improve nutrition among children, adolescents, pregnant mothers and lactating mothers.
- **Edible oil**: Fortification of edible oil, too, was made compulsory across the country by FSSAI in 2018.
- **Milk**: Fortification of milk was started in 2017 under which the National Dairy Development Board of India (NDDB) is pushing companies to add vitamin D.

Benefits of fortification

- **High benefit-to-cost ratio**: Food fortification has a high benefit-to-cost ratio. The Copenhagen Consensus estimates that every 1 Rupee spent on fortification results in 9 Rupees in benefits to the economy. While an initial investment to purchase both the equipment and the vitamin and mineral premix is required, the overall costs of fortification are extremely low.
- **No socio-cultural barriers**: Fortification does not require any changes in food habits and patterns of people. It is a socio-culturally acceptable way to deliver nutrients to people
- **No alteration of food characteristics**: It does not alter the characteristics of the food like the taste, aroma or the texture of the food
- **Quick implementation**: It can be implemented quickly as well as show results in improvement of health in a relatively short period of time.
- **Wide reach**: Since the nutrients are added to widely consumed staple foods, fortification is an excellent way to improve the health of a large section of the population, all at once.

Issues with fortification

- **Impact on fetal development**: Consumption of **excess iron** by pregnant women can adversely affect fetal development and birth outcomes. These children have an increase risk of contracting chronic diseases.
- **Bioavailability:** Supplements added to foods are less bioavailable. Bioavailability refers to the proportion of a nutrient your body is able to absorb and use.
- **Loss of natural protective substances**: Sometimes, fortification can have the opposite effect. Natural foods contain protective substances such as phytochemicals and polyunsaturated fat that are adversely affected by the process of blending micronutrients.
- **Market-driven solution**: The researchers are worried that the push towards fortification is more to help the industry than the people and is an international market driven solution and without any scientific logic.
- Mandatory fortification will create markets that will be hard to withdraw when we have achieved the target of reduced micronutrient deficiency.
- **High cost**: The fortification expenditure of only the rice delivered through the social safety networks will cost the public exchequer about Rs 2,600 crores annually.
- **Impact on small industries**: Fortification creates an assured market for multinationals. It could threaten the livelihoods of small units across India. Like, in case of rice and oil processing.
- **No direct link b/w anaemia & iron deficiency**: There is no direct link between anaemia and iron deficiency. Anaemia is high among poor children in the rural areas but iron deficiency is more among the urban and rich across the country.

Project SAMVAD | Economy

Why in the news?

- The SAMVAD program's second phase was just inaugurated by the Ministry of Women and Child Development. The second phase began once the first year of the programme was completed.

About SAMVAD

- SAMVAD Stands for: Children in Vulnerable Situations and Distress: Support, Advocacy, and Mental Health Interventions (SAMVAD).
- The Ministry of Women and Child Development is funding this initiative.
- The National Institute of Mental Health and Neuro Sciences is in charge of the implementation body (NIMHANS).
- The NIMHANS is the world's leading centre for mental health and neuroscience research and teaching. It is run independently by the Ministry of Health and Family Welfare.
- NIMHANS has produced a set of guidelines on the management of mental health concerns among prisoners and prison employees, at the request of the Ministry of Home Affairs.

Significance of SAMVAD

- It is a national programme and integrated resource that helps children in tough situations with child protection, mental health, and psychosocial care.

- It includes a unique training curriculum on childhood trauma, law enforcement interventions for children, and forensics in child and adolescent psychiatry and mental health.
- Children with special needs get education and mental health support, as well as protection and care in the context of adoption.
- Close to 1 lakh stakeholders, including Child Protection Functionaries, Tele-counsellors, Educators, and Law Professionals, have been trained as part of the project to provide coping techniques for children in distress.
- Integration with Local Bodies: The effort intends to develop child protection and mental health integration in Panchayati Raj systems in aspirational districts across the country, in order to increase awareness and improve service delivery at the grassroots level.

- Globally: In October 2020, WHO released the findings of a survey carried out in 130 countries which showed that the pandemic had disrupted or halted mental health services in 93 per cent of the countries.
- Early this year, WHO had also pointed out that countries were spending less than 2 per cent of their health budget on mental health.
- Only around 1 per cent of the international aid available for health is earmarked for mental health.
  - The global economic cost of mental illness is expected to be more than $16 trillion over the next 20 years, which is more than the cost of any other non-communicable disease.
- Indian Scenario: A report published in The Lancet Psychiatry in February 2020 indicates that in 2017, there were 197.3 million people with mental disorders in India.
- The top mental illnesses were depressive disorder (45.7 million) and anxiety disorder (44.9 million).
- The contribution of mental disorders to the total DALYs in India increased from 2.5 per cent in 1990 to 4.7 per cent in 2017. Depressive disorder and anxiety disorder contributed the most to the total mental disorders DALYs.

Various initiatives in this direction

- Global level: WHO supports governments in the goal of strengthening and promoting mental health. WHO has evaluated the evidence for promoting mental health and is working with governments to disseminate this information and to integrate effective strategies into policies and plans.
- In 2013, the World Health Assembly approved a "Comprehensive Mental Health Action Plan for 2013-2020". The Plan is a commitment by all WHO's the Member States to take specific actions to improve mental health and to contribute to the attainment of a set of global targets.

Indian initiatives

- **National Mental Health Programme**
  - Since 1982, the government has been executing the National Mental Health Program (NMHP) to address the massive burden of mental diseases and the shortage of skilled experts in the field of mental health.
  - In 2003, the programme was restructured to incorporate two schemes: modernization of state mental hospitals and upgrading of psychiatric wings of medical schools and general hospitals.

- **2017 Mental HealthCare Act**
  - It ensures that everyone who is affected has access to mental health care and treatment via government-run or supported programmes.
  - It has drastically limited the scope of Section 309 IPC's application and made suicide attempts punished solely as an exception.
  - The Mental Health Care Act of 2017 (MHCA) went into effect in 2018 to comply with the UN Convention on the Rights of Persons with Disabilities, which India joined in 2007.
  - KIRAN: The Ministry of Social Justice and Empowerment has inaugurated a toll-free helpline that is available 24 hours a day, seven days a week for those suffering from anxiety, stress, depression, suicide ideation, and other mental health issues.

- Recently, the Union Minister for Social Justice & Empowerment has launched an online portal TAPAS (Training for Augmenting Productivity and Services).

About TAPAS Initiative
- TAPAS is the initiative of National Institute of Social Defence (NISD).
- TAPAS is a standard MOOC (Massive Open Online Course) platform with course material such as filmed lectures and e-study material.
- It also includes discussion forums to support and encourage interactions among students and course coordinators.
- The five basic courses are on Drug (Substance) Abuse Prevention, Geriatric/Elderly Care, Care and Management of Dementia, Transgender Issues and on comprehensive course on Social Defence Issues.
- **Significance of TAPAS Initiative**
- Its primary objective is to impart training and enhance the knowledge and skills for the capacity building of the participants.
- It seeks to provide access to lectures by subject experts, study material and more, but in a manner that it supplements the physical classroom without compromising on the quality of teaching.

About TAPAS Portal
- The TAPAS portal is developed by the National Institute of Social Defence, Ministry of Social Justice and Empowerment.
- The idea of TAPAS was conceptualized at a time when exploring the online medium for work and education had become imperative due to the outbreak of Covid 19 pandemic.

Hydrocarbon Exploration and Licensing Policy

Economy

Why in the news?
- The Ministry of Petroleum and Natural Gas has recently launched the **sixth round** of e-bids under the Open Acreage Licensing Programme (OALP). The blocks would be awarded to winning bidders at the end of Nov' 2021.

Hydrocarbon Exploration and Licensing Policy (HELP)
- To address these concerns, the Hydrocarbon Exploration and Licensing Policy (HELP) was launched in **2016.** HELP replaced the New Exploration Licensing Policy (NELP) of 1997-1998. HELP had **2 key drivers**, both of which were launched in June 2017

Provisions Under HELP

Single license that covers exploration and production of all types of hydrocarbon viz. conventional & unconventional resources eg oil and gas, coal-bed methane, shale oil, gas hydrates, etc.

Open Acreage Licensing Programme (OALP)
- Under NELP, the bidders could choose only from the blocks offered by the government and had to wait for the government to undertake bidding for blocks which were of interest to the bidders.
- To address this issue, the government introduced **OALP** under HELP. OALP gives investors the freedom to carve out blocks of their choice after assessing Exploration & Production data available at **National Data Repository** and submit an **Expression of Interest** (EoI).
- EoI can be submitted **thrice a year** without waiting for a formal bid round from the government. These blocks are later offered through a biannual (twice a year) formal bidding process. The entity offering the maximum share of oil and gas to the government is awarded the block.

Revenue Sharing Model

- Under NELP, contracts were based on the concept of **profit sharing** where profits are shared between the Government and the contractor after recovery of cost. Under this, it became necessary for the Government to examine cost details of private participants and this led to many delays and disputes.
- Under the **revenue sharing model of HELP**, the government is not concerned with the cost incurred in the process and directly receives a share of the gross revenue from the sale of oil, gas etc. This model is simpler and easy to monitor, as the government has to monitor only two parameters, revenue and production of the contractor.

Financial Incentives Under HELP

- To encourage exploration in deep water and ultra-deep water, a **graded system of royalty** has been introduced, in which royalty rates decrease from shallow water to deep water and ultra-deep water.
- Exemptions: The royalty is **exempted for the first seven years** and subsequently royalty of 5% and 2% is applicable in deep water and ultra-deep water areas. Exemption of custom duty applicable on equipment/ services for exploration and production activities.
- Marketing and pricing freedom for crude oil and natural gas produced from these blocks.

e-RUPI Economy

Why in the news?

- National Payments Corporation of India (NPCI) has recently launched an **electronic voucher based digital payment system** called **e-RUPI**.
- It has been **developed by** NPCI, Department of Financial Services, Ministry of Health and Family Welfare and the National Health Authority.

About e-RUPI

- It is a **cashless and contactless** digital payment medium and is essentially like a prepaid gift-voucher that can be redeemed at specific accepting centres.
- **Banks** (both public and private banks) will be the **issuing entities** of vouchers. Any corporate or government agency can generate e-RUPI vouchers via their partner banks.
- The National Payments Corporation of India (NPCI), which oversees the digital payments ecosystem in India, has launched e-RUPI, a voucher-based payments system to promote cashless transactions.
- It will be a **person-specific and purpose-specific** payments system. For example, if someone has an e-RUPI voucher for Covid-19 vaccine, then it can be redeemed for vaccines only.
- The beneficiaries will be identified using their mobile number and a code for the transaction will be delivered to the mobile phones of beneficiaries in the form of an **SMS-string or a QR code**.
- **Which Banks issue e-RUPI ?**
- NPCI has partnered with 11 banks for e-RUPI transactions. They are Axis Bank, Bank of Baroda, Canara Bank, HDFC Bank, ICICI Bank, Indian Bank, IndusInd Bank, Kotak Mahindra Bank, Punjab National Bank, State Bank of India and Union Bank of India.
- The acquiring Apps are Bharat Pe, BHIM Baroda Merchant Pay, Pine Labs, PNB

Benefits of e-RUPI

- It will enable **leak-proof delivery of welfare benefits** in education, nourishment, healthcare, agriculture etc. as voucher redemption can be tracked by the issuer.
- The most distinguishing feature of e-RUPI compared to other digital payment systems is that the **beneficiary need not be banked.** This would translate into higher adoption rates in rural areas
- The private sector can also use e-RUPI for **employee welfare** and **corporate social responsibility (CSR)** programmes.
- Vouchers can be redeemed without any credit or debit card, a mobile app or internet banking, as **no physical interface** is required for transactions.

- Being pre-paid in nature, it will ensure **timely payment** to the service provider without the involvement of any intermediary.
- It can drive **greater adoption of digital payments,** as even non-smartphone users can use it.It offers a **secure transaction process**, as the beneficiary details are completely **confidential**, which helps to maintain privacy.
- **Limitations of e-RUPI**
- Since the beneficiary is not required to disclose their identity, these vouchers are also likely to be claimed by other people

Financial Inclusion Index (FI-Index)   Economy

Why in the news?
- **RBI** has recently introduced the first **composite financial inclusion index** (FI-Index) to capture the extent of financial inclusion in the country. It is a comprehensive index incorporating details of **banking, investments, insurance, postal and the pension sector.**

About Financial Inclusion Index
- It is an annual publication of Reserve Bank of India (RBI).
- It captures information on various aspects of financial inclusion in a single value ranging between 0 and 100, where 0 represents complete financial exclusion and 100 indicates full financial inclusion.
- It comprises three broad parameters i.e. Access (35%), Usage (45%), and Quality (20%), with each of these consisting of various dimensions computed based on a number of indicators.
- It has been constructed without any 'base year' and it reflects cumulative efforts of all stakeholders over the years towards financial inclusion.

Key Highlights of Financial Inclusion Index
- The annual FI-Index for the period ending March 2021 is 53.9 as against 43.4 for the period ending March 2017.
- There has been a very good improvement of 10.5 points in the FI Index between 2017 and 2021 because this was the period when the government and RBI gave a big push to financial inclusion.
- Significance of Financial Inclusion Index
- It has a unique feature of the quality parameter, which captures the quality aspect of financial inclusion as reflected by financial literacy, consumer protection, andinequalities and deficiencies in services.
- It has been conceptualized as a comprehensive index incorporating details of banking, investments, insurance, postal, and the pension sector.
- It is responsive to ease of access, availability and usage of services, and quality of services, comprising 97 indicators in all.

e-Shram Portal   Economy

Why in the news?
- The **Ministry of Labour and Employment** has recently launched the National Database for Unorganised Workers **(NDUW)** or **e-Shram portal**, to build a comprehensive database of more than **38 crore unorganised workforce**, comprising of construction labourers, migrant workers, street vendors, platform workers etc.

About e-Shram Portal
- The workers will be issued an e-Shram card containing a 12 digit unique number.
- The e-Shram card will help in including them in social security schemes.
- It aims to register 38 crore unorganised workers, such as construction labourers, migrant workforce, street vendors and domestic workers, among others.
- A national toll free number i.e.14434 will also be launched to assist and address the queries of workers seeking registration on the portal.

Process of registration on e-Shram Portal

- A worker can register on the portal using his/her Aadhaar card number and bank account details, apart from filling other necessary details like date of birth, home town, mobile number and social category.
- The registration of workers on the portal will be coordinated by the Labour Ministry, state governments, trade unions and CSCs.
- The awareness campaigns would be planned across the country to enable nationwide registration of workers.
- The workers from the unorganised sector can begin their registration from the same day following the launch of the portal.

National Monetisation Pipeline (NMP) | Economy

Why in news?

- Recently, the Union Minister for Finance has launched the asset monetisation pipeline of Central ministries and public sector entities: 'National Monetisation Pipeline (NMP Volumes 1 & 2)'.

About National Monetisation Pipeline

- The Union Budget 2021-22 has identified monetisation of operating public infrastructure assets as a key means for sustainable infrastructure financing.
- The Budget provided for preparation of a 'National Monetisation Pipeline (NMP)' of potential brownfield infrastructure assets.
- The pipeline has been developed by NITI Aayog, in consultation with infrastructure line ministries, based on the mandate for 'Asset Monetisation'
- It aims to provide a medium term roadmap of the programme for public asset owners; along with visibility on potential assets to private sector.
- NMP estimates aggregate monetisation potential of Rs 6.0 lakh crores through core assets of the Central Government, over a four-year period, from FY 2022 to FY 2025.
- The Asset Monetisation programme is based on the vision of universal access to high-quality and affordable infrastructure to the common citizen of India.

Features of National Monetisation Pipeline

- The pipeline has been prepared based on inputs and consultations from respective line ministries and departments, along with the assessment of total asset base available therein.
- The monetization through disinvestment and monetization of non-core assets have not been included in the NMP.
  - Currently, only assets of central government line ministries and CPSEs in infrastructure sectors have been included.
- The framework for monetisation of core asset monetisation has three key imperatives:
- It includes selection of de-risked and brownfield assets with stable revenue generation profile with the overall transaction structured around revenue rights.
- The primary ownership of the assets under these structures continues to be with the Government with the framework envisaging hand back of assets to the public authority at the end of transaction life.

Significance of National Monetisation Pipeline

- Its strategic objective is to unlock the value of investments in brownfield public sector assets by tapping institutional and long-term patient capital.
- The NMP is envisaged to serve as a medium-term roadmap for identifying potential monetisation- ready projects, across various infrastructure sectors.
- The NMP is aimed at creating a systematic and transparent mechanism for public authorities to monitor the performance of the initiative and for investors to plan their future activities.
- The NMP is a culmination of insights, feedback and experiences consolidated through multi-stakeholder consultations undertaken by NITI Aayog, Ministry of Finance and line ministries.

Potential of National Monetisation Pipeline

- The period for NMP has been decided so as to be co-terminus with balance period under National Infrastructure Pipeline (NIP).
- The aggregate asset pipeline under NMP over the four-year period, FY 2022-2025, is indicatively valued at Rs 6.0 lakh crore.
- The estimated value corresponds to ~14% of the proposed outlay for Centre under NIP (Rs 43 lakh crore).
  - It includes more than 12 line ministries and more than 20 asset classes.
- The sectors included are roads, ports, airports, railways, warehousing, gas & product pipeline, power generation and transmission, mining, telecom, stadium, hospitality and housing.
- The top 5 sectors (by estimated value) capture ~83% of the aggregate pipeline value.
  - These top 5 sectors include Roads (27%) followed by Railways (25%), Power (15%), oil & gas pipelines (8%) and Telecom (6%).
- The assets and transactions identified under the NMP are expected to be rolled out through a range of instruments.
  - It includes direct contractual instruments such as public private partnership concessions and capital market instruments such as Infrastructure Investment Trusts (InvIT) among others.

About Infrastructure Investment Trust (InvITs)

An Infrastructure Investment Trust (InvITs) is like a mutual fund, which enables direct investment of small amounts of money from possible individual/institutional investors in infrastructure to earn a small portion of the income as return.

- InvITs work like mutual funds or real estate investment trusts (REITs) in features.
- InvITs can be treated as the modified version of REITs designed to suit the specific circumstances of the infrastructure sector.
- Sebi notified the Sebi (Infrastructure Investment Trusts) Regulations, 2014 on September 26, 2014, providing for registration and regulation of InvITs in India.
- The objective of InvITs is to facilitate investment in the infrastructure sector.
- InvITs can be established as a trust and registered with Sebi.
- An InvIT consists of four elements: 1) Trustee, 2) Sponsor(s), 3) Investment Manager and 4) Project Manager.
- The trustee, who inspects the performance of an InvIT is certified by Sebi and he cannot be an associate of the sponsor or manager.
- 'Sponsors' are people who promote and refer to any organisation or a corporate entity with a capital of Rs 100 crore, which establishes the InvIT and is designated as such at the time of the application made to Sebi, and in case of PPP projects, base developer.
- Promoters/sponsor(s), jointly, have to hold a minimum of 25 per cent for three years (at least) in the InvIT, excluding the situations where an administrative requirement or concession agreement needs the sponsor to hold some minimum percent in the special purpose vehicle.
- Investment manager is an entity or limited liability partnership (LLP) or organisation that supervises assets and investments of the InvIT and guarantees activities of the InvIT.
- Project manager refers to the person who acts as the project manager and whose duty is to attain the execution of the project and in case of PPP projects.

National Mission on Edible Oil - Oil Palm

Economy

Why in news ?

- The Union Cabinet has recently approved the launch of **National Mission on Edible Oil –Oil Palm** (NMEO-OP) to boost domestic oilseed production. The proposed scheme will subsume the current National Food Security Mission-Oil Palm programme

Status Of Edible Oil Production And Consumption

- Palm oil is currently the world's most consumed vegetable oil. It is also used extensively in the production of detergents, plastics, cosmetics, and biofuels. Top consumers of palm oil are India, China, and the European Union (EU).
- In India, around 94% of palm oil is used in food products, especially for cooking purposes.

- India imports about 60% of its annual edible oil demand of about 25 million tonnes, with palm oil having 55% share in total edible oil imports.
- Oil palm produces 10 to 46 times more oil per hectare compared to other oilseed crops and has a yield of around 4 tons oil per hectare. Thus, it has enormous potential for cultivation.

Need for National Edible Oil Mission-Oil Palm (NMEO-OP)
- India has become self sufficient or Aatmanirbhar in production of rice, wheat and sugar, but it was not enough as the country is dependent on huge imports of edible oils.
- India is dependent on imports of edible oil to meet the domestic demand i.e. of the total imports, palm oil constitutes about 55 per cent.
  - The country spent thousands of crores of rupees on edible oil imports.
- India does export agricultural commodities such as sugar and rice on the world market, but domestic oilseed production is nearly six times lower than rice and wheat.
- India produces less than half of the roughly 2.4 crore tonnes of edible oil that it consumes annually.
  - It imports the rest, buying palm oil from Indonesia and Malaysia, soyoil from Brazil and Argentina, and sunflower oil, mainly from Russia and Ukraine.
- India's vegetable oil imports have surged to 1.5 crore tonnes from 40 lakh only two decades ago.

Details
- NMEO-OP is a **Centrally Sponsored Scheme** with a special focus on **North-East (NE) and Andaman and Nicobar (A&N) Islands**. It will invest more than Rs 11,000 crore in the cooking oil ecosystem over a five-year period.
- It aims at increasing the total area under oil palm cultivation from the current 3.5 lakh hectares to 10 lakh hectares by 2025-26. There is a sunset clause for the scheme which is 1st November 2037.

Interventions
- The government will invest more than ₹11,000 crore via the National Mission on Oilseeds and Oil Palm to provide farmers everything possible.
- Under the scheme, the government will ensure that farmers get all facilities, from quality seeds to technology to promote farming to produce palm oil and other oil seeds.
- The Centre plans to raise the domestic production of palm oil by three times to 11 lakh MT by 2025-26.
- It will involve raising the area under oil palm cultivation to 10 lakh hectares by 2025-26 and 16.7 lakh hectares by 2029-30.
- Under the scheme, oil palm farmers will be provided financial assistance and will get remuneration under a price and viability formula.

Significance of National Edible Oil Mission-Oil Palm (NMEO-OP)
- It aims to make India self-sufficient in cooking oils, including palm oil.
- It will help in reducing the dependence on imports.
- The special emphasis of the scheme will be in India's north-eastern states and the Andaman and Nicobar Islands due to the conducive weather conditions in the regions.
- It is expected to incentivise production of palm oil to reduce dependence on imports and help farmers cash in on the huge market.

Issues with the mission
- **Destruction of rainforests and native biodiversity-** The focus areas of the mission are biodiversity hotspots and ecologically fragile. Oil palm plantations would denude forest cover and destroy the habitat of endangered wildlife, as witnessed in Southeast Asia.
- **Cropping pattern:** The initial state support for such a crop results in a major and **quick shift in the existing cropping pattern** that are not always in sync with agro-ecological conditions and food requirements of the region.
- **Impact on community ownership of tribal lands**– the mission does not focus on community ownership of land in these regions. Thus, it may detach tribal from their identity linked with the community ownership of land.
- **Water stress**– oil palm is a water-guzzling crop, which requires 300 liters of water per tree per day. Thus, it can lead to water stress in the region.

- **Invasive species**– The palm is an invasive species. It's not a natural forest product of northeastern India. Thus, its impact on biodiversity as well as on soil conditions has to be analyzed.
- Against sustainable development: **Against commitment to sustainable agriculture:** The policy also contradicts the government's commitments under the National Mission for Sustainable Agriculture.
- Andaman and Nicobar Islands have some prior experiences in palm oil plantations. A 1,593-hectare area on Little Andaman used to be cultivated. However, it was abandoned on the instructions of the Supreme Court, as much of the lands were protected or reserve forests.
- Sri Lanka, with similarly suitable climatic conditions, has stopped palm oil plantations because it became an invasive species, threatening native plants and animals. Furthermore, it dried up local streams.
- Long gestation period:It has a long gestation period and so is unsuitable for small farmers: Restricts income flow to farmers for at least 4-5 years before giving real fruits.
- Trade issues: Faulty trade policy: It undercut the gains in oilseed productivity which were driven by the technology mission of the late 1980s and early 90s. When the government cut duties on edible oil imports, the Indian domestic market collapsed. Palm oil imports from Southeast Asia became cheaper than domestic oilseeds because of the subsidies provided in those countries

Previous schemes
- **OPAE**: The Government of India had also supported a Special Program on Oil Palm Area Expansion (OPAE) under RKVY during the year 2011-12 with an objective to bring 60,000 hectares under Oil Palm cultivation.
- **NMOOP**: The National Mission on Oilseeds and Oil Palm (NMOOP) was launched during the 12th plan, in which Mini Mission-II (MM-II) was dedicated to oil palm area expansion and productivity increase. It is being implemented in 13 states which include Andhra Pradesh, Assam, Arunachal Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Mizoram, Nagaland, Odisha, Tamil Nadu, Telangana, and Goa.

NERAMAC Revival Package   Economy

Why in the news?
- NERAMAC revival and Oil Palm Mission are a big boost to North east Farmers, will contribute to doubling of their income

Key Highlights:
- The Cabinet Committee on Economic Affairs (CCEA), chaired by the Prime Minister has approved a revival package of Rs.77.45 crore (Rs. 17 crore towards fund based support and Rs.60.45 crore towards non-fund based support) for revival of North Eastern Regional Agricultural Marketing Corporation Limited (NERAMAC), a central Public Section Enterprises under the administrative control of Ministry of Development of North Eastern Regional (MDoNER).
- The Union Cabinet also approved the National Mission on Edible Oils – Oil Palm (NMEO-OP) as a new Centrally Sponsored Scheme with a special focus on the North east region and the Andaman and Nicobar Islands.
- The Mission aims to increase the area under cultivation for Oil Palm by an additional area of 6.5 lakh hectare (ha.) thereby reaching the target of 10 lakh hectares in the next 5 years.

> **North Eastern Council:**
> - The North Eastern Council was constituted by an Act of the Parliament in the year 1971 as an advisory body for socio-economic and balanced development of the North Eastern Areas.
> - It is the nodal agency for the social and economic development of the North Eastern Region in India **consisting of the 8 States of Assam, Arunachal Pradesh, Meghalaya, Manipur, Mizoram, Sikkim, Nagaland and Tripura.**
> - The establishment of the NE Council marked the beginning of a new era of planned and concerted efforts for the speedy development of that Region.
> - NEC members: the Governors and the Chief Ministers of the 8 states including Sikkim, Chairman and 3 members nominated by the President.

General Insurance Business (Nationalisation) Amendment Bill, 2021   Economy

Why in news?
- The Parliament passed the General Insurance Business (Nationalization) Amendment Bill 2021 which removes the condition that the Central Government should hold 51% shareholding in state-owned general insurance companies.

About The General Insurance Business (Nationalisation) Amendment Bill 2021:
- The General Insurance Business (Nationalisation) Amendment Bill, 2021 was introduced in Lok Sabha on July 30, 2021.
- The Bill seeks to amend the General Insurance Business (Nationalisation) Act, 1972.
- The Act was enacted to nationalise all private companies undertaking general insurance business in India.
- The Bill seeks to provide for a greater private sector participation in the public sector insurance companies regulated under the Act.
- The 1972 Act set up the General Insurance Corporation of India (GIC).
- The General Insurance Business (Nationalisation) Act, 1972, was enacted to provide for the acquisition and transfer of shares of Indian insurance firms for developing the general insurance business
- The businesses of the companies nationalised under the Act were restructured in four subsidiary companies of GIC:
  - National Insurance,
  - New India Assurance,
  - Oriental Insurance, and
  - United India Insurance.
- The Act was subsequently amended in 2002 to transfer the control of these four subsidiary companies from GIC to the central government, thereby making them independent companies. Since 2000, GIC exclusively undertakes reinsurance business.

Significance of the act
- The Bill seeks to **provide for a greater private sector participation** in the public sector insurance companies regulated under the Act.
- The objectives and reasons for the Bill are to provide for **increased insurance access, better the social protection and interests of policyholders, and contribute to the rapid growth** of the economy.
- While India's insurance sector has been growing dynamically in recent years, its share in the global insurance market remains abysmally low.
- The Bill will **allow the government to bring down its stake in State-owned general insurance companies,** generate required resources and **help public sector general insurers design innovative products**.
- Finance Minister Nirmala Sitharaman said that resources are necessary for the rapid growth of these insurance companies, and they **can get money and technology from the private sector.**
- The government argues that The General Insurance Business (Nationalisation) Amendment Bill, 2021 is aimed at generating required resources from the Indian markets so that public sector general insurers can design innovative products.

Criticisms of the bill

- **Privatisation Agenda:** This bill may lead to total privatisation of general insurance companies. Privatising LIC and other public sector insurers would lead to opening a Pandora's Box, throwing into insecurity 30 crore policyholders.
- **Loss of Revenue:** With this, the government will also lose money by way of dividend in the proportion of shares being offered. If it does not sell parts of its stake, it will be required to borrow money which means higher expenditure in future on account of debt servicing.

Challenges in the Insurance sector:

- Low penetration and density rates.
- Inadequate investment in insurance products.
- The dominant position and deteriorating financial health of public-sector players

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General Insurance Business (Nationalisation) Act, 1972?

- The General Insurance Business (Nationalisation) Act, 1972, was enacted to provide for the acquisition and transfer of shares of Indian insurance firms for developing the general insurance business.
- The 1972 Act set up the General Insurance Corporation of India (GIC). The businesses of the companies nationalised under the Act were restructured in four subsidiary companies of GIC
- Presently, there are four general insurance companies in the public sector:
    - Oriental Insurance Company,
    - National Insurance Company,
    - United India Insurance Company and
    - New India Assurance Company.
- In the year 2002, it was amended to transfer and vest the shares of the acquiring companies with the central government, thereby mandating it to maintain at least 51 percent shareholding in the general insurance companies

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Global Manufacturing Index 2021 **Economy**

Why in news?

- Recently, the Cushman and Wakefield has released the 2021 Global Manufacturing Risk Index.

What is Global Manufacturing Risk Index?

- Cushman & Wakefield's Manufacturing Risk Index report ranks countries based on a range of factors including:
    - Risk and cost factors
    - Political and economic risk
    - Market conditions and labor costs
    - Market Access
- It is based on the most favorable locations for international manufacturing.
- The index ranks 47 countries across Europe, the Americas, and the Asia Pacific.

Key Highlights of 2021 Global Manufacturing Risk Index

- China has retained its top position and continues to diversify its manufacturing base.
    - The report stated that even with the Biden administration's concerns about trade, China continues to diversify its base to move up the value chain to focus on telecom, high-tech, and computers.
    - Guangdong and Jiangsu regions are spearheading its electronic components and automotive manufacturing, while Zhejiang and Liaoning focus on chemicals and natural resources.
- The US is a desirable hub as it offers a large consumer market as well as incentives at both state and federal levels.
- In the category of the cost scenario, India and Vietnam were overtaken by Indonesia, while China retained its lead position.
    - India slipped to the third rank, while Indonesia moved to the second from the fifth spot.
    - The report stated that Jakarta's dipping rents have a part to play in cost effectiveness that pushed Indonesia up by three spots.

- In the category of the risk scenario that takes into account lower levels of economic and political risks, India is nowhere near the top.
  - India has been clubbed in the third quartile of the rankings along with Malaysia, Belgium, Indonesia, Bulgaria, Romania, Thailand, Hungary, Colombia, Italy, Peru and Vietnam.
  - On top of the first quartile is China, followed by Canada, US, Finland, Czech Republic.
  - The second quartile has countries like Lithuania, France, Netherlands, Spain, Poland, Japan, UK etc.
- In the category of the bounce back rating that takes into account a country's ability to restart its manufacturing sector, India is in the fourth quartile with Sri Lanka, Mexico, Vietnam, Indonesia, Bulgaria, Thailand, Tunisia, Peru, Philippines and Venezuela.

Performance of India in 2021 Global Manufacturing Risk Index
- India has been ranked as the second-most sought-after manufacturing destination in the world.
- It is second only to China and has surpassed the US to bag the second ranking.
- India slipped a rank in the cost scenario and was overtaken by Indonesia.
- India could benefit from relocations from China to other parts of Asia, as it already has an established base in pharmaceuticals, chemicals and engineering sectors.
- The index stated that reforms in land and labour laws are critical to ensure India's success as a global manufacturing hub.

SAMRIDH Programme   Economy

Why in news?
- The Ministry of Electronics and Information Technology **(MeitY)** has recently launched the SAMRIDH (Start- up Accelerators of Meity for product Innovation, Development and growth) programme.

About the programme
Minister of Electronics and Information Technology (MeitY) launched Startup Accelerators of MeitY for pRoduct Innovation, Development and growth (SAMRIDH) programme.
- **The SAMRIDH signifies:** Start-up Accelerators of MeitY for Product Innovation, Development and growth.
- **The programme will support 300 IT-based startups for a duration of 6 months.**
- The programme aims to create 100 unicorns from the selected IT/Software based startups by offering them funds, mentor guidance and access to the markets.
- Under the programme, the ministry will grant seed capital of upto Rs 40 lakh and mentor guidance to the selected startups.
- The programme will be executed on the basis of Ycombinator, which is a successful startup accelerator initiative in the United States.
- Through this programme, the software-based startups will be able to enhance their products, upscale their businesses and enhance capacity building

Report On Rising Unemployment   Economy

Why in news?
- The Parliamentary Standing Committee on Labour recently released a report on the impact of pandemic on rising unemployment and job loss.

Highlights Of The Report
- The pandemic has devastated the labour market, denting the employment scenario and threatening the survival of millions of workers and their families.
- Informal workers have been hit the most, because of the seasonality of their employment and lack of formal employee-employer relationship.

Recommendations

- Increase in the maximum days of work guaranteed under **MGNREGS** from 100 days to 200 days and devise an **employment guarantee programme** for **urban workforce** in line with MGNREGS.
- A mandatory health insurance to workers by amending the payment schedule.
- **Direct cash transfers** should be given to informal workers during adverse conditions like Covid-19.
- Convert loans granted to street vendors under the **PM-SVANidhi (Street Vendor's AtmaNirbhar Nidhi) Scheme** to **direct cash grants**, which would enable the vendors to restart their income activity in a regular manner. Under PM-SVANidhi, street vendors can avail a working capital loan of Rs 10,000.
- The committee noted that the annual PLFS for 2019-2020 and 2020-21 are not yet available even after two waves of Covid-19. Thus, it asked the Labour Ministry for **timely completion of PLFS**.
- Going forward, formalising the unorganised sector, increasing its productivity, strengthening existing livelihoods, creating new opportunities and improving social security measures are major thrust areas.

Taxation Laws (Amendment) Bill, 2021 — Economy

Why in news?

- Recently, the BJP-led government has decided to withdraw the retrospective taxation amendment in the I-T Act introduced in March 2012. The government has stressed the need to establish its "Sovereign Right to Taxation"by scrapping the retrospective levy.

Sovereign Right to Taxation in India

The Constitution of India gives the government the right to levy taxes on individuals and organisations. It also makes it clear that no one has the right to levy or charge taxes except by the authority of law.

- Any tax being charged has to be backed by a law passed by the legislature or Parliament.
- The Ministry of Statistics and Programme Implementation defines tax as a pecuniary burden laid upon individuals or property owners to support the government.
- It provides that tax is not a voluntary payment or donation, but an enforced contribution, exacted pursuant to legislative authority.
- Taxes in India come under a three-tier system based on the Central, State and local governments, and the Seventh Schedule of the Constitution puts separate heads of taxation under the Union and State list.
- There is no separate head under the Concurrent list, meaning Union and the States have no concurrent power of taxation, as per the document.

Implication of Retrospective Tax ban on Sovereign Right to Taxation

- The government has assured that the amendment to retrospective income-tax law will not dilute India's sovereign right to tax.
- The amendment was made after the apex court in 2012 gave a verdict that gains arising from indirect transfer of Indian assets were not taxable under the extant provisions of the Income Tax Act.
- The idea behind the banning Retrospective Tax, a sovereign government has right to tax, but to apply it in retrospect has created a lot of discontentment.

Vehicle Scrappage Policy — Economy

Why in the news?

- Recently, the Prime Minister has launched the Vehicle Scrappage Policy at the Investors Summit in Gujarat.

Need for Vehicle Scrappage Policy

- India is committed to provide global standard safety and quality to its citizens and this thinking is behind the transition from BS4 to BS6.
- The government is taking continuous steps to make Indian Industry sustainable and productive for speeding the process of Aatmanirbhar Bharat.
- India had to import 23,000 crore worth of scrap steel during 2020 as India's scrapping is not productive and India is not able to recover energy and rare earth metals.

- When it comes to vehicles which are older than 20 years, India is home to 2.1 crore such vehicles.
- Karnataka has the highest number (39.4 lakh) in the country which is followed by Delhi (36.1 lakh), Uttar Pradesh (26.2 lakh), Kerala (20.6 lakh), Tamil Nadu (15.9 lakh) and Punjab (15.3 lakh).

Features of Vehicle Scrappage Policy
- The policy implementation will begin with heavy commercial vehicles, which will need to undergo mandatory fitness tests starting April 1, 2023. All other vehicles, including private ones, will be included in the mandatory fitness test criteria from June 1, 2024, in a phased manner.
- The policy aims to scrap old, unfit and polluting vehicles by creating an infrastructure for automated testing of vehicles that have completed the registration period.
- As per law, a registration certificate for a passenger vehicle is valid for 15 years from date of issue. For a commercial vehicle, it is valid for a period of 10 years. The scrappage policy will come into effect after the expiry of this 10 or 15 year period.
- A valid fitness certificate will be necessary for renewal of registration certificates after 15 years. The renewed certificate will be issued for a period of 5 years in case of private vehicles.
- Unfit vehicles will be scrapped scientifically which will ensure that registered vehicle scrapping facilities all over the country are technology driven and transparent.
- The term 'unfit' vehicles include those:
    - Who fail to qualify a fitness test;
    - Who have been damaged due to fire, riot, natural disaster, accident or any other calamity;
    - Declared obsolete or beyond repair; and
    - Vehicles which have outlived their utility

Disincentives for holding old vehicles
- Holding on to vehicles older than 15 years will become an expensive affair for owners as cost for renewal of fitness certificate might go up by 62 times for commercial vehicles and by 8 times for private vehicles.
- The states will impose green tax over and above the road tax that every vehicle owner needs to pay.

Benefits to Consumers of Vehicle Scrappage Policy
- The first advantage will be that a certificate will be given on scrapping the old vehicle.
    - Whoever has this certificate will not have to pay any money for registration on the purchase of a new vehicle and he will also be given some exemption in road tax.
- The second benefit will be that the maintenance cost, repair cost, fuel efficiency of the old vehicle will also be saved in this.
- The third benefit is directly related to life because there will be some relief from the high risk of road accidents due to old vehicles and old technology.
- The fourth benefit is that it will reduce the harmful impact of pollution on our health.

Significance of Vehicle Scrappage Policy
- The vehicle scrapping will help phase out unfit and polluting vehicles in an environmentally friendly manner.
- Its objective is to create a viable circular economy and bring value for all stakeholders while being environmentally responsible.
- It is expected to give a new identity to the auto sector and to the mobility of New India.
- It will play a big role in the modernization of the vehicular population in the country, removing unfit vehicles from the roads in a scientific manner.
- The new scrapping policy is an important link in the circular economy and in the waste to wealth campaign.
- The policy uses the principle of Reuse, Recycle and Recovery to promote the country's self-reliance in the auto sector and in the metal sector.

Why in the news?

- Recently, the Prime Minister has launched the PM Gati Shakti Master Plan on the 75th Independence Day.

About PM Gati Shakti Master Plan

- It is a Rs. 100 lakh-crore project for developing 'holistic infrastructure'.
- It is a national infrastructure master plan which will make a foundation for holistic infrastructure.
- It will help raise the global profile of local manufacturers and help them compete with their counterparts worldwide.
- It raises possibilities of new future economic zones.

Need for PM Gati Shakti Master Plan

- India has been working for a reset of its logistics sector involving railways, highways, inland waterways and airports to put in place an effective transportation grid.
- The logistics make up about 13% of costs for Indian companies, making exports uncompetitive vis-a-vis China.
- India needs to increase both manufacturing and exports because every product that is sold globally from India is attached to India.

Significance of PM Gati Shakti Master Plan

- It is aimed at easier interconnectivity between road, rail, air and waterways to reduce travel time and improve industrial productivity.
- It is aimed at breaking silos within the transport network to reduce travel time and improve industrial productivity.
- It aims at improving industrial productivity, making manufacturing globally competitive, facilitating future economic zones and creating employment.

National Infrastructure Pipeline (NIP)

- **N**IP is a first-of-its-kind, whole-of-government exercise to provide world-class infrastructure across the country.
- It aims to improve project preparation, attract investments (both domestic and foreign) into infrastructure, and will be crucial for target of becoming a $5 trillion economy by FY 2025.
- The Final Report of NIP Task Force has projected total infrastructure investment of Rs **111 lakh crore** during the period FY 2020-25. The NIP captures all projects — **greenfield or brownfield**, under implementation or under conceptualisation — costing greater than Rs 100 crore per project.
- A **greenfield** project refers to a completely new project and **brownfield** projects are pre-existing projects that are modified or upgraded.
- While Centre and states are expected to have almost equal share in implementing NIP, private sector contribution is expected around 21 %.
- Out of the total expected capital expenditure of Rs 111 lakh crore, projects of Rs 44 lakh crore (40 % of NIP) are under implementation, projects worth Rs 33 lakh crore (30 %) are at conceptual stage and projects worth Rs 22 lakh crore (20 %) are under development.
- Of the total project capital expenditure, sectors such as energy (24 %), urban (17 %), railways (12 %) and roads (18 %) are expected to contribute nearly 70 % of the infra investments in India.
- The NIP project database would be made available on the India Investment Grid (IIG). IIG is an interactive and dynamic online platform that showcases updated and real-time investment opportunities in the country.

Why in the news?

- Recently, the Prime Minister launched the **second phase of Pradhan Mantri Ujjwala Yojana (PMUY) or Ujjwala 2.0 Scheme. The PM** mentioned plans to promote "gobar dhan" – **tapping cow dung for energy** on the occasion of **World Bio Fuel Day (10th August).**

- Ujjwala is part of the ambitious agenda for behavioural change that **will help India transit to a $5 trillion economy by 2024.**

Features of Ujjwala 2.0
- The enrolment procedure will require minimum paperwork and in Ujjwala 2.0, migrants will not be required to submit ration cards or address proof.
- It will give maximum benefit to lakhs of migrant workers' families as they have to give a self-declaration of the address for getting a gas connection.
- It will provide the first refill and hotplate free of cost to the beneficiaries
- The one crore additional connections under Ujjwala 2.0 aim to provide deposit-free LPG connections to those low-income families who could not be covered under the earlier phase of PMUY.

Significance of Ujjwala Scheme
- Apart from a deposit-free LPG connection, a free refill worth over Rs 800 and a free stove will be provided to the beneficiaries.
- It was launched as a flagship scheme with an objective to make clean cooking fuel such as LPG available to the rural and deprived households which were otherwise using traditional cooking fuels.
- It aims to safeguard the health of women & children by providing them with a clean cooking fuel – LPG.
- It aims to provide a great boost to the 'Make in India' campaign as all the manufacturers of cylinders, gas stoves, regulators, and gas hose are domestic.

About Ujjwala 1.0
- It was introduced by the Ministry of Petroleum & Natural Gas which aims to make available cooking fuel such as LPG to rural households.
- In the first phase of the scheme, 8 crore poor, dalit, deprived, backward and tribal families were given free gas connections.
- Under the scheme, a target was set to provide LPG connections to five crore women members of BPL households.
- The scheme was expanded in April 2018 to include women beneficiaries from seven more categories such as SC/ST, those under the Pradhan Mantri Awas Yojana (PMAY), beneficiaries of the Antyodaya Anna Yojana (AAY), forest dwellers, most backward classes, tea gardens and Islands.

Eligibility Criteria under Ujjwala Scheme
- The enrollment procedure for PMUY Ujjwala 2.0 requires minimal paperwork.
- The migrants will not be required to submit ration cards or address proof to get the benefit.
- The eligibility criteria for the scheme are:
  - The applicant must be a woman
  - The age of the woman should be more than 18 years
  - She must be from a BPL family
  - She should have a BPL card and ration card
  - There should not be LPG Connection in the name of any family member of the applicant

Forum for Decarbonisation of Transport Sector | Economy

Why in the news?
- Recently, **Forum for Decarbonizing Transport** was jointly launched by **NITI Aayog and World Resources Institute (WRI), India.**

About WRI
- **WRI India** is an **independent charity legally** registered as the **India Resources Trust** which provides objective information and practical proposals to foster environmentally sound and socially equitable development.
- **NITI Aayog** serves as an advisory think tank for the government and is chaired by the Prime Minister. It replaced the **Planning Commission**.

About the forum
- The forum is a part of the **Nationally Determined Contributions (NDC)- Transport Initiative for Asia (NDC-TIA) project**, which focuses on developing a coherent strategy of effective policies and the formation of a multi-stakeholder platform for decarbonising transport in the region.
- NDC-TIA is a joint programme of **seven organisations that will engage China, India, and Vietnam** in promoting a **comprehensive approach to decarbonising transport in their respective countries.** The project is part of the **International Climate Initiative (IKI).**
- The IKI is a key element of Germany's climate financing and the funding **commitments** in the framework of the **Convention on Biological Diversity**.
- It will act as the conduit for bringing diverse voices and needs to adopt an **integrated approach for greening the transport sector in India.**
- **It aims to Bring down the peak level of Greenhouses Gas emissions (transport sector) in Asia** (in line with a well below 2-degree pathway), resulting in problems like **congestion and air pollution.**

Expected Benefits:
- It will help in the **development of innovative business models** for targeted results and the holistic growth of the electric mobility space in India.
- It will **also provide a platform to initiate dialogues for the development of uniform policies and help achieve specific results** in reducing emissions from the transport sector.

> **FAME Scheme:**
> - It is a part of the **National Electric Mobility Mission Plan**. Its main thrust is to encourage electric vehicles by providing subsidies.
> - **Incentives under PLI Scheme:**
>   - Last year the scheme was rolled out for **various industries** including an **outlay of over Rs. 5700 crore for the automobile and auto-component industry** over a period of five years.
>   - Around Rs.18,000 crore was approved for development of advanced cell chemistry battery storage manufacturing.
>   - These incentives further aim to **encourage indigenous development of Electric Vehicles (EVs) so as to bring down their upfront cost.**
> - **Renewable Automotive Industry:**
>   - India is currently engaged in building a domestic renewable automotive industry with the aim to become the world's largest electric vehicle **manufacturing and supplying hub.**
>   - **Battery electric vehicle and fuel-cell vehicle technologies** are all set to overtake **fossil-run vehicles in the country by 2050.**

G-Sec Acquisition Programme 2.0   Economy

Why in the news?
- Recently, the RBI said that it will conduct an open market purchase of government securities of Rs.25,000 crore in August under the G-sec Acquisition Programme (G-SAP 2.0).

Government Securities Acquisition Programme (G-SAP)
The G-Sec Acquisition Programme (G-SAP) is basically **an unconditional and a About G-SAP-**
- The Reserve Bank periodically purchases Government bonds from the market through Open Market Operations (OMOs).
- G-SAP is like OMOs.
- However, under G-SAP, there is an upfront commitment by the RBI to the markets that it will purchase bonds worth a specific amount.
- Eligible participants should submit their bids in electronic format on the Reserve Bank of India Core Banking Solution (E-Kuber) system.

Under G-SAP the Reserve Bank reserves the right to:
- Decide on the quantum of purchase of individual securities.

- Accept bids for less than the aggregate amount.
- Purchase marginally higher/lower than the aggregate amount due to rounding-off.
- Accept or reject any or all the bids either wholly or partially without assigning any reasons.

G-sec Acquisition Programme (G-SAP 1.0)-

- RBI aimed to conduct open market purchase of government securities of Rs.1 lakh crore under the G-sec Acquisition Programme (G-SAP 1.0) with a view to enabling a stable and orderly evolution of the yield curve.
- The first purchase of government securities for an aggregate amount of Rs.25,000 crore under G-SAP 1.0 was conducted on April 15, 2021.
- RBI announced the second tranche (Rs. 35000 crore) of Open Market Purchase of Government of India Securities under G-sec Acquisition Programme (G-SAP 1.0) in May.
- The Reserve Bank will conduct an open market purchase of government securities of Rs.1.2 lakh crore under the G-sec Acquisition Programme (G-SAP 2.0) in Q2:2021-22 to support the market.
- The first purchase of Government securities for an aggregate amount of Rs. 20,000 crore under G-SAP 2.0 was conducted on July 08, 2021.
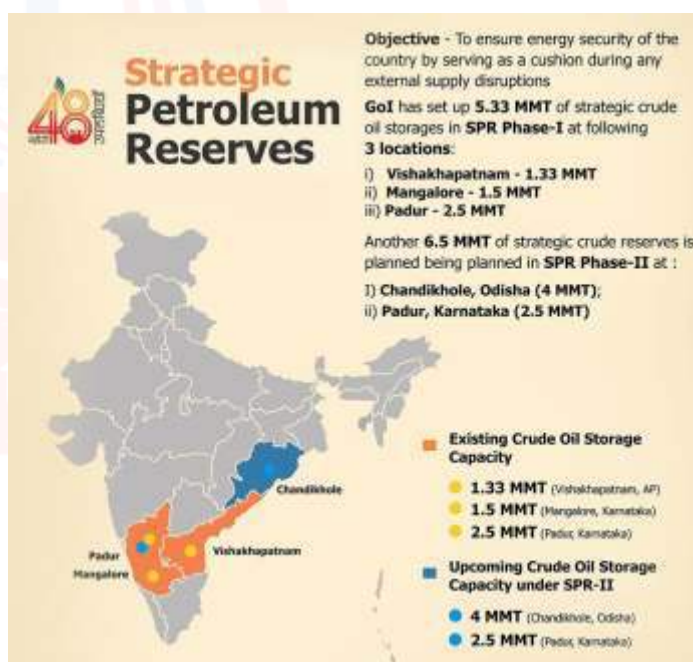
Strategic Petroleum Reserves	Economy

Why in the news?

- Under Phase II of the petroleum reserve program, the Government has approved two additional commercial-cum-strategic facilities at Chandikhol (Odisha) and Padur (TN) on Public-Private Partnership (PPP) model.

Strategic Petroleum Reserves in India

- It is a storage of crude oil which would act as a cushion during any external supply disruptions or supply demand mismatch shock.
- The global standard for strategic oil reserves, as set by International Energy Agency (IEA) and Integrated Energy Policy 2006 of India recommended that country should maintain a reserve equivalent to 90 days of oil imports for strategic- cum-buffer stock purposes.
- The crude oil storages are constructed in underground rock caverns and are located on both the East and West coast of India. They are considered to be more environment friendly and incur less evaporation loss than ground level storage.
- Construction of storage facilities are maintained by Indian Strategic Petroleum Reserves Limited (an SPV of the Oil Industry Development Board under MoPNG).
- Presently, strategic reserves are situated at Visakhapatnam (Andhra Pradesh), Mangalore (Karnataka), and Padur(Kerala).

Strategic Petroleum Reserves

Objective - To ensure energy security of the country by serving as a cushion during any external supply disruptions

GoI has set up 5.33 MMT of strategic crude oil storages in SPR Phase-I at following 3 locations:
i) Vishakhapatnam - 1.33 MMT
ii) Mangalore - 1.5 MMT
iii) Padur - 2.5 MMT

Another 6.5 MMT of strategic crude reserves is planned being planned in SPR Phase-II at :
I) Chandikhole, Odisha (4 MMT);
ii) Padur, Karnataka (2.5 MMT)

Existing Crude Oil Storage Capacity
- 1.33 MMT (Vishakhapatnam, AP)
- 1.5 MMT (Mangalore, Karnataka)
- 2.5 MMT (Padur, Karnataka)

Upcoming Crude Oil Storage Capacity under SPR-II
- 4 MMT (Chandikhole, Odisha)
- 2.5 MMT (Padur, Karnataka)

- Moreover, project of 3 additional reserves is in pipeline at Chandikhol (Orrisa), Bikaner (Rajasthan) and Rajkot (Gujrat).

Phase II of Strategic Petroleum Reserves

- Under Phase I of strategic petroleum reserves (SPR) programme, Government of India, through its Special Purpose Vehicle, Indian Strategic Petroleum Reserve Limited (ISPRL), has established petroleum storage facilities with total capacity of 5.33 Million Metric Tonnes (MMT) at 3 locations, namely (i) Vishakhapatnam (1.33 MMT), (ii) Mangaluru (1.5 MMT) and (iii) Padur (2.5 MMT), and all the storage facilities have been filled with crude oil. The petroleum reserves established under Phase I are strategic in nature and the crude oil stored in these reserves will be used during an oil shortage event, as and when declared so by Government of India.

- Under Phase II of the petroleum reserve programme, Government has given approval in July 2021 for establishing two additional commercial-cum-strategic facilities with total storage capacity of 6.5 MMT underground storages at Chandikhol (4 MMT) and Padur (2.5 MMT) on PPP mode.

SUJALAM Campaign   Economy

Why in the news?
- The Ministry of Jal Shakti began 'SUJALAM', a '100 days campaign' to create more and more ODF Plus villages by undertaking wastewater management at the village level.

SUJALAM Campaign
- The Jal Shakti Ministry has launched this campaign to create a million soak pits in villages across the country over the next 100 days.
- It aims to help manage grey water and prevent the clogging of water bodies.
- Although the Central government does not have any comprehensive estimate of the total number of soak pits needed countrywide, the States have been asked to develop their own targets.

Need for such a campaign
- The household or community soak pit is the simplest solution for grey water management.
- Best solution for most villages which are generally dry, grey water can be safely and inexpensively filtered through a soak pit".
- Ensure all newly emerging Households in the village have access to toilets

Objectives of the campaign
- The effort of the campaign would be directed towards achieving the ODF plus status for villages across the country in an accelerated manner in a short time.
- The campaign will not only build desired infrastructure soak pit for management of greywater in villages but will also aid in sustainable management of water bodies.
- The disposal of wastewater and clogging of water bodies in the villages or on the outskirts of the villages remain one of the major problems.
- The Campaign would help in the management of the wastewater and in turn, would help to revive the water bodies.

Sugarcane Pricing in India   Economy

Context:
- Earlier this month, the Supreme Court issued notices to States and major sugar producers to develop a mechanism to ensure that farmers are paid on time.

Who determines Sugarcane prices?
- Sugarcane prices are determined by the Centre as well as States.
- The Centre announces Fair and Remunerative Prices which are determined on the recommendation of the Commission for Agricultural Costs and Prices (CACP) and are announced by the Cabinet Committee on Economic Affairs, which is chaired by Prime Minister.
- The State Advised Prices (SAP) are announced by key sugarcane producing states which are generally higher than FRP.

Minimum Selling Price (MSP) for Sugar
- The price of sugar is market-driven & depends on the demand & supply of sugar.
- However, with a view to protecting the interests of farmers, the concept of MSP of sugar has been introduced since 2018.
- MSP of sugar has been fixed taking into account the components of Fair & Remunerative Price (FRP) of sugarcane and minimum conversion cost of the most efficient mills.

Basis of price determination
- With the amendment of the Sugarcane (Control) Order, 1966, the concept of Statutory Minimum Price (SMP) of sugarcane was replaced with the Fair and Remunerative Price (FRP)' of sugarcane in 2009-10.
- The cane price announced by the Central Government is decided on the basis of the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- This is done in consultation with the State Governments and after taking feedback from associations of the sugar industry.

What is FRP?
- FRP is fixed under a sugarcane control order, 1966.
- It is the minimum price that sugar mills are supposed to pay to the farmers.
- However, states determine their own State Agreed Price (SAP) which is generally higher than the FRP.

Factors considered for FRP:
- The amended provisions of the Sugarcane (Control) Order, 1966 provides for fixation of FRP of sugarcane having regard to the following factors:
  - cost of production of sugarcane;
  - return to the growers from alternative crops and the general trend of prices of agricultural commodities;
  - availability of sugar to consumers at a fair price;
  - price at which sugar produced from sugarcane is sold by sugar producers;
  - recovery of sugar from sugarcane;
  - the realization made from the sale of by-products viz. molasses, bagasse, and press mud or their imputed value;
  - reasonable margins for the growers of sugarcane on account of risk and profits.

Financial Inclusion Index | Economy

Context:
- Recently, the **Reserve Bank of India (RBI)** has unveiled the **first composite Financial Inclusion Index (FI-Index).**
- The **annual FI-Index** for the **financial year ended March 2021** crossed the halfway mark to 53.9, as compared to 43.4 for the year ended March 2017.

Key Points
About:
- The index has been **conceptualised as a comprehensive index** incorporating details of banking, investments, insurance, postal as well as the pension sector in consultation with the government and respective sectoral regulators.
- It will be **published annually in July every year.**
- It has been constructed without any 'base year' and as such it **reflects cumulative efforts** of all stakeholders over the years towards financial inclusion.

Aim:
- To capture the **extent of financial inclusion** across the country. **Parameters:**
- It **captures information on various aspects of financial inclusion** in a **single value ranging between 0 and 100,** where 0 represents complete financial exclusion and 100 indicates full financial inclusion.
- It comprises three **broad parameters (weights indicated in brackets)** viz., **Access (35%), Usage (45%), and Quality (20%)** with each of these consisting of various dimensions, which are computed based on a number of indicators.
- The index is **responsive to ease of access, availability and usage of services, and quality of services** for all 97 indicators.

Importance of FI Index:
- **Measures Level of Inclusion:** It provides information on the **level of financial inclusion** and **measures financial services** for use in internal policy making.
- **Development Indicators:** It can be used **directly as a composite measure** in development indicators.
- **Fulfill the G20 Indicators:** It enables fulfilment of **G20 Financial Inclusion Indicators** requirements.

- The G20 indicators **assess the state of financial inclusion and digital financial services,** nationally and globally.
- **Facilitate Researchers:** It also **facilitates researchers to study the impact of financial inclusion** and other macroeconomic variables.

Related Initiatives:
- **Pradhan Mantri Jan Dhan Yojana:**
  - It was announced in **August 2014,** which proved to be a steady vehicle for financial inclusion.
  - Till now nearly **43 crore poor beneficiaries in the country** now have a basic bank account under the yojana.
- **Digital Identity (Aadhaar):**
  - It has **catalyzed inclusion and innovation** in the delivery of **financial services.**
- **National Centre for Financial Education (NCFE):**
  - The RBI has released the **(NCFE): 2020-2025 document** for creating a financially aware and empowered India.
- **Centre for Financial Literacy (CFL) Project:**
  - The CFL project has been **conceptualised by the RBI in 2017** as an **innovative and participatory approach** to financial literacy at the Block level involving select banks and **non-governmental organisations (NGOs).**
  - Initially set up in **100 blocks on a pilot basis,** the project is now being scaled up across the country to every block in a phased manner by March 2024.

Why in the news?
- **Recently, the Pakistani authorities have finalised a law to award provisional provincial status to strategically located Gilgit-Baltistan.**

About the provincial status
- The newspaper reported that under the proposed law, the Supreme Appellate Court (SAC) of Gilgit-Baltistan may be abolished and the region's election commission is likely to be merged with the Election Commission of Pakistan (ECP).
- The proposed law suggests that due to sensitivity attached to the region, it could be given provisional provincial status by amending Article 1 of the Constitution that related to the provinces and territories.
- It added that a set of amendments would be introduced to give the region representation in Parliament, besides the establishment of the provincial assembly in the territory.
- The constitutional amendment is in accordance with the international practice of merger of territories and it will not adversely affect the Kashmir cause in any manner.
- The region will become the fifth province of Pakistan, although the region is claimed by India as part of the erstwhile princely state of Jammu & Kashmir as it existed in 1947 at its accession to India.

About Gilgit-Baltistan region
- It is the northernmost territory administered by Pakistan, providing the country's only territorial frontier, and thus a land route, with China, where it meets the Xinjiang Autonomous Region.
- The Gilgit-Baltistan region is surrounded by Afghanistan in west, Pakistan-occupied Kashmir in south, and J&K in east.

Current status of Gilgit-Baltistan region
- Though Pakistan, like India, links G-B's fate to that of Kashmir, its administrative arrangements are different from those in PoK.
- While PoK has its own Constitution that sets out its powers and their limits vis-à-vis Pakistan, G-B has been ruled mostly by executive fiat.
- It got its present name only with the Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009, which replaced the Northern Areas Legislative Council with the Legislative Assembly.
  - The NALC was an elected body, but had no more than an advisory role to the Minister for Kashmir Affairs and Northern Areas, who ruled from Islamabad.

India's stand on Gilgit-Baltistan region
- India has clearly conveyed to Pakistan that the entire union territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of the country by virtue of its fully legal and irrevocable accession.
- India maintains the Government of Pakistan or its judiciary has no locus standi on territories illegally and forcibly occupied by it.

Assistance Mission in Afghanistan (UNAMA)

International Relations

Why in the news?
- UN Assistance Mission in Afghanistan (UNAMA) to expire in September this year.

About UN Assistance Mission in Afghanistan (UNAMA)
- UNAMA is a political mission that was established in 2002 (with UNSC resolution 1401)to help rebuild the country after the 2001 US-led invasion.
- **Its Vision:** A **stable and prosperous Afghanistan that lives at peace with itself** and its **neighbours,** where the Afghan peoples' human rights are upheld and basic services are available to all.
- **UNAMA's mission** is **to support the people and institutions of Afghanistan in achieving peace and stability**, in line with the rights and obligations enshrined in the Afghan constitution.

- **Mandate:** Its original mandate was to support the implementation of the Bonn Agreement (December 2001).
- Reviewed annually, this mandate has changed over time to reflect the needs of the country.
- Unanimously adopting resolution 2543 (2020), the 15-member Council decided to extend the Mission's mandate until 17 September 2021.
- The United Nations has been involved in the region since 1946 when Afghanistan joined the United Nations as a member state of the Organization.

Greater Male Connectivity Project | International Relations

Why in the news?
- Recently, India and Maldives has signed a contract on the mega Greater Male Connectivity project (GMCP).

About Greater Male Connectivity Project (GMCP)
- It is a $500-million infrastructure project between the Maldives government and a Mumbai-based company AFCONS.
- It involves the construction of a 6.74-km-long bridge and causeway link that will connect the Maldives capital Male with the neighbouring islands of Villingli, Gulhifalhu and Thilafushi.
- It is funded by India in a grant of $100 million, with a line of credit of $400 million.

Need for Greater Male Connectivity Project (GMCP)
- Male is the most densely populated cities because close to 40% of the entire population of the Maldives lives in Malé, that has an area of approximately 8.30 square kilometers.
- It is very congested and land is a major issue and also there is very little scope for Malé city to expand.
- It prompted the current government in the Maldives to consider decentralisation and the development of other inhabited islands by equipping them with civic facilities like hospitals and other institutions.
- The transportation and connectivity to the capital city would improve and opening up an alternative route for transport, that has been a persistent issue for the country's people.

Significance of Greater Male Connectivity Project (GMCP)
- It supports the vision of Prime Minister Modi and President Solih (Maldives) for strong bilateral relations.
- It is a concrete proof that India is a robust development partner of the Maldives in addition to being the First Responder in times of any emergency in the Maldives.
- It is the biggest project India is doing in the Maldives and also the biggest infrastructure project in the Maldives overall.
- The Chinese-made 1.39 km-long Sinamalé Bridge connects Malé with the islands of Hulhulé and Hulhumalé and this project, four times longer, would link the other three islands.

NDC-Transport Initiative for Asia (NDC-TIA) project | International Relations

Why in the news?
- NITI Aayog and World Resources Institute (WRI)-India, jointly launched the 'Forum for Decarbonizing Transport' in India as part of the NDC-Transport Initiative for Asia (NDC-TIA) project.

Key Highlights
- The forum will work in close coordination with all the stakeholders to formulate strategies and develop appropriate business models to accelerate electric mobility in India.
- The forum will provide a platform to initiate dialogues for the development of uniform policies and help achieve specific results in reducing emissions from the transport sector.
- The forum will bring together CEOs, researchers, academics, multilateral agencies, financial institutions as well as the Central and state government on a common platform.
- The forum will help in the development of innovative business models resulting in targeted results and the holistic growth of the electric mobility space in India.

About NDC-Transport Initiative for Asia (NDC-TIA) project

- It is a joint programme of seven organisations that will engage China, India, and Vietnam in promoting a comprehensive approach to decarbonizing transport in their respective countries.
- It is part of the International Climate Initiative (IKI).
- The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) support the initiative on the basis of a decision adopted by the German Bundestag.
- NITI Aayog is the implementing partner for the India component of the project.
- It is funded by the International Climate Initiative (IKI) of the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Significance of NDC-TIA

- It aims at bringing down the peak level of GHG emissions (transport sector) in Asia (in line with a well below 2-degree pathway), resulting in problems like congestion and air pollution.
- It focuses on developing a coherent strategy of effective policies and the formation of a multi-stakeholder platform for decarbonizing transport in the country.
- It aims to facilitate a paradigm shift to zero-emission transport across Asia.

Permanent Forum of People of African Descent — International Relations

Why in the news?

- Recently, the UN General Assembly approved a resolution establishing a Permanent Forum of People of African Descent.

About the Permanent Forum

- The forum is named as the **United Nations Permanent Forum of People of African Descent.**
- It would **provide expert advice on addressing the challenges of racism, racial discrimination, xenophobia and intolerance.**
- The new UN resolution calls for the forum to serve as "**a platform for improving the safety and quality of life and livelihoods of people of African descent**" and their full inclusion in the societies where they live.
- As per the UN's resolution forum's **first session will take place in 2022.**
- The resolution also calls for annual reports to the assembly and the council on the forum's activities, and an evaluation of its operation by the General Assembly after four sessions, based on an evaluation by the Human Rights Council.
- Its establishment comes during the **International Decade for People of African Descent, established by the General Assembly, which began on January 1, 2015**, and **ends on December 31, 2024.**
- The decade is focusing on the themes of recognition, justice and development.
- The new body's creation comes ahead of the 20th anniversary of the controversial September 2001 UN **World Conference Against Racism in Durban**, South Africa, which was dominated by clashes over the Middle East and the legacy of slavery.
- The forum will consist of 10 members — **five elected by the General Assembly from all regions and five appointed by the Human Rights Council** following consultations with regional groups and organizations of people of African descent.

Forum of the Election Management Bodies of South Asia — International Relations

Why in the news?

- Chief Election Commissioner of India who is also current Chairman of FEMBoSA inaugurated the 11th Annual meeting of the Forum of the Election Management Bodies of SouthAsia (FEMBoSA) for the year 2021.

About FEMBoSA

- **FEMBoSA** is a regional association **Election Management Bodies (EMBs) of SAARC Countries.**
- It was established at the 3rd Conference of Heads of Election Management Bodies (EMBs) of SAARC Countries held at New Delhi in May, 2012.

- FEMBoSA represents a very large part of the democratic world and is an active regional cooperation association of Election Management Bodies.
- Its logo with golden pearls stands for the eternal values of transparency, impartiality, democracy and cooperation.
- The forum promotes contact among the Election Management Bodies of SAARC countries
- Members: Besides ECI, the other 7 members are EMBs from Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan and Sri Lanka.

BRICS-Agricultural Research Platform — International Relations

Why in the news?
- Recently, the Union Minister for Agriculture and Farmers Welfare has announced the operationalization of BRICS-Agricultural Research Platform (ARP).

About BRICS-Agricultural Research Platform (ARP)
- It is a global platform for science-led agriculture will help in addressing the issues of world hunger, undernutrition, poverty and inequality
- It is prepared and set up in India for strengthening the cooperation in the field of agricultural research & innovations amongst the BRICS member States.
- The Coordinating Centre of the BRICS-ARP is housed at NASC Complex, Pusa under the governance of Department of Agricultural Research & Education/ICAR.
- The BRICS Nations have also appointed their focal points for BRICS-ARP to interact virtually through the platform and identify the common problems and develop joint projects for finding the solutions.
- The Indian Council of Agricultural Research is the focal organization from India.

Purpose of BRICS-Agricultural Research Platform (ARP)
- It is aimed at promoting sustainable agricultural development through strategic cooperation in agriculture and allied sector.
- It has been operationalized to intensify cooperation in the areas of agricultural research, technology, policy, innovations and capacity building to sustainably increase yields and farmers income in the BRICS member countries.
- The platform shall escalate the exchange of research findings and innovation and best practices for upscaling in the respective BRICS Nations.

BRICS (Brazil, Russia, India, China and South Africa)
- The leaders of BRIC (Brazil, Russia, India, and China) countries met for the first time in St. Petersburg, Russia, on the margins of G8 Outreach Summit in July 2006.
- Shortly afterwards, in September 2006, the group was formalised as BRIC during the 1st BRIC Foreign Ministers' Meeting, which met on the sidelines of the General Debate of the UN Assembly in New York City.
- After a series of high level meetings, the 1st BRIC summit was held in Yekaterinburg, Russia on 16 June 2009.
- BRIC group was renamed as BRICS (Brazil, Russia, India, China, South Africa) after South Africa was accepted as a full member at the BRIC Foreign Ministers' meeting in New York in September 2010. Accordingly, South Africa attended the 3rd BRICS Summit in Sanya, China on 14 April 2011.
- BRICS is an important grouping bringing together the major emerging economies from the world, comprising 41% of the world population, having 24% of the world GDP* and over 16% share in world trade.

First Marburg Virus Case

Why in the news?

- **Recently, the World Health Organization (WHO) has said that Guinea had confirmed the first recorded case of Marburg disease in West Africa.**

About Marburg Virus Disease

- Marburg virus disease is a highly virulent disease that causes hemorrhagic fever.
- It is in the same family as the virus that causes Ebola virus disease.
- The virus was initially detected in 1967 after simultaneous outbreaks in Marburg and & Frankfurt in Germany; and in Belgrade, Serbia.
- The common symptoms of a virus are fever, headache, fatigue, abdominal pain and gingival haemorrhage.
- Marburg is transmitted to people from fruit bats.
- The virus spreads among humans through direct contact with the bodily fluids of the patient, surfaces and materials
- The case fatality rate is around 50%.
- There are no approved vaccines or antiviral treatments for the virus yet.
- Early supportive care with rehydration and symptomatic treatment improves survival rates.

Pusa Decomposer

Why in the news?

- It is a **new low-cost capsule which can convert paddy stubble into bio-manure. It is developed by ICAR**

About Pusa Decomposer

- Indian Agriculture Research Institute (IARI) has developed 'decomposer' capsules.
- When mixed in a water solution and sprayed on land, it soften and decompose paddy subtle to the extent that it can mix with soil and act as compost.
- Theoretically, it does away with the reason farmers set fire to fields ahead of the rabi sowing.
- It is essentially a fungi-based liquid solution that can soften hard stubble to the extent that it can be easily mixed with soil in the field to act as compost.
- This would then rule out the need to burn the stubble, and also help in retaining the essential microbes and nutrients in soil that are otherwise damaged when the residue is burned.
- These seven strains of fungi are packed into four capsules, which cost about Rs 20 per pack of four.

India Internet Governance Forum (IIGF) - 2021

Why in the news?

- **India to host the first Internet Governance Forum in the country**

About the Forum

- This forum is an Internet Governance policy discussion platform.
- It will bring representatives together from various groups, considering all at par to discuss public policy issues related to the Internet.
- The mode of engagement at this platform is referred to as the multi-stakeholder model of Internet Governance
- Multi Stakeholder concept is well adopted by IGF (Internet Governance Forum) under United Nations and by Internet Corporation for Assigned Names and Numbers (ICANN).

Significance of this Forum:

- India is the second-largest broadband subscription country in the world
- It also has the highest data consumption per user per month, so the aspirations of the Indians should be reflected in international policy formation and stakeholder discussion.

- The forum will ensure that the growth of broadband adheres to the lifestyle and requirements of the Indian community.
- IIGF 2021 is adopting the multi-stakeholder concept in organizing the event as per the true spirit of global IGF with the representation from civil society, Government, Industry, Industrial association, trust, and other stakeholders.

About ICANN
- The Internet Corporation of Assigned Names and Numbers (ICANN) is a non-profit organization
- It was set up in 1998 to oversee the administration of domain names.
- **Objective:** ICANN coordinates and ensures the smooth and secure functioning of the cybernetic framework.
- **Functions:**
  - Approval of companies that can become accredited registrars for domain names.
  - Decision making regarding the addition of new Top Level Domains (TLDs) to the Root system.
  - Coordinating technical parameters to maintain universal connectivity.
  - Creating a Uniform Domain Name Dispute Resolution Policy (UDRP) for competing domain names.

ISRO's Earth Observation Satellite (EOS-03)　　Science & Technology

Why in the news?
- Recently, ISRO's **Earth Observation satellite** (EOS-03) faced a setback minutes after it was launched due to performance anomaly in the **cryogenic stage**.

About the launch
The satellite will be launched through the Geosynchronous Satellite Launch Vehicle-F10 (GSLV-F10) from the Second Launch Pad of Satish Dhawan Space Centre (SDSC) SHAR in Sriharikota.
- The EOS-03 is a state-of-the-art agile Earth observation satellite, which can provide near real-time imaging of large areas at frequent intervals, according to the ISRO website.
- It can help monitor natural disasters and other events.
- It can also obtain "spectral signatures for agriculture, forestry, water bodies as well as for disaster warning, cyclone monitoring, cloud burst or thunderstorm monitoring".
- The satellite has a mission life of 10 years.
- The GSLV-F10 is a 51.7-metre high vehicle, which will launch the satellite to the Geosynchronous Transfer Orbit.
- The EOS will then reach the final geostationary orbit using its onboard propulsion system.
- This is the fourteenth flight of GSLV, and the first one with a 4-metre diameter Ogive shaped payload fairing, used to protect the spacecraft.

World's Second-largest National Gene Bank　　Science & Technology

Why in the news?
- Union Minister for Agriculture and Farmers Welfare, Shri Narendra Singh Tomar inaugurated the world's second-largest refurbished state-of-the-art National Gene Bank at the National Bureau of Plant Genetic Resources (NBPGR), Pusa, New Delhi.

About the gene banks
- **Gene banks** are a type of biorepository that preserves genetic material. Gene banks exist to conserve the genetic diversity of wild and domesticated organisms that humans depend on for food, fiber, medicine & energy
- Types of Gene Banks are Seed Bank, Tissue Bank, Cryo Bank, Pollen Bank ,Field gene Bank , Sperm Bank, Ova Bank
- Gene bank for plants is done by in vitro storage, freezing cuttings from the plant, or stocking the seeds (e.g. in a seedbank). Gene bank for animals is done by the freezing of sperm and eggs in zoological freezers until further need. Gene bank for corals is done by fragments are taken and stored in water tanks under controlled conditions
- Maintaining material in gene banks is often termed '**ex situ conservation**' which is defined as 'the conservation of components of biodiversity outside their natural habitats'
- The National Gene Bank established in the year 1996 to preserve the seeds of Plant Genetic Resources (PGR) for future generations, has the capacity to preserve about one million germplasm in the form of seeds.

Applications

- Maintain the genetic integrity of its accessions
- Make the accessions easily available to users of germplasm
- Provide the raw material for plant breeding and basic biological research – Accessions of crop wild relatives are particularly valuable as sources of gene providers
- Provide germplasm for restoration of lost crops after natural or man- made catastrophes
- To conserve the Plant Genetic Resources (PGR) for future generations in the form of seeds, genomic resources, pollen etc

Zycov-D   Science & Technology

Why in the news?

- The Drug Controller General has granted emergency approval to the Zycov-D, a COVID-19 vaccine developed by Zydus Cadilla group, making it the **first vaccine** in **India** that can be administered to adults as well as those **12 and above**.

About the vaccine

- The world's first and India's indigenously developed DNA based vaccine for COVID-19 to be administered in humans including Children and adults 12 years and above.
- Developed in partnership with the Department of Biotechnology, Government of India under the 'Mission COVID Suraksha' and implemented by BIRAC, ZyCoV-D has been supported under COVID-19 Research Consortia through National Biopharma Mission for Preclinical studies, Phase I and Phase II Clinical Trials and under the Mission COVID Suraksha for Phase III Clinical Trial.
- This 3 dose vaccine which when injected produces the spike protein of the SARS-CoV-2 virus and elicits an immune response, which plays a vital role in protection from disease as well as viral clearance. The plug-and-play technology on which the plasmid DNA platform is based can be easily adapted to deal with mutations in the virus, such as those already occurring.

> #### DBT
> - The Department of Biotechnology (DBT), under the Ministry of Science and Technology, promotes and improves biotechnology development in India through its development and implementation in agriculture, healthcare, animal sciences, the environment, and industry.
>
> #### BIRAC
> - A non-for-profit Public Sector Enterprise, Biotechnology Industry Research Assistance Council (BIRAC), has been set up by the Department of Biotechnology (DBT), Government of India, which acts as an interface agency to enhance and encourage the evolving biotechnology industry to implement strategic research and development activities in regards to the product development needs of the Nation.

First Trial for an mRNA Vaccine for HIV   Science & Technology

Why in the news?

- Moderna, American biotechnology company, has indicated that it may begin **human trials** for a vaccine for HIV (human immunodeficiency virus) in September employing the same mRNA platform that it has used in its COVID-19 vaccine.

About the vaccine

- This is the **first trial for an mRNA** vaccine for **HIV** after the success of mRNA vaccines with Covid-19.

Working of the vaccine

- **Traditional vaccines** are made up of small or inactivated doses of the whole disease-causing organism, or the proteins that it produces.
- mRNA vaccines work by using messenger RNA, which is the molecule that essentially puts **DNA instructions into action**. Inside a cell, mRNA is used as a template to build a protein. This triggers the body into producing some of the viral proteins itself.

- The larger purpose of stimulating the **B cells** (class of white blood cells) is to generate what are called **broadly neutralising antibodies (bnAbs)**, which are specialised **blood proteins** that attach to **the surface proteins of HIV and disable them** by accessing key but hard to-reach regions on the virus.
- B-cells fight bacteria and viruses by making proteins called antibodies.
- Over the last decade, there have been advances in identifying new bnAbs from HIV-infected individuals that were seen to target very specific sites in the outer envelope of the HIV.

> **Messenger RNA (mRNA)**
> - It is a single-stranded RNA molecule that is complementary to one of the DNA strands of a gene.
> - The mRNA is an RNA version of the gene that leaves the cell nucleus and moves to the cytoplasm where proteins are made.
> - During protein synthesis, an organelle called a ribosome moves along the mRNA, reads its base sequence, and uses the genetic code to translate each three-base triplet, or codon, into its corresponding amino acid.

Smog Tower   Science & Technology

Why in the news?
- **Delhi's Chief Minister recently unveiled the country's first 'smog tower.'**

About the smog tower
- The smog tower is a 24 metre-high structure fitted with fans and air filters. This is to solve the problem of Air Pollution in Delhi.
- It will draw in polluted air from the top and release filtered air near the ground through fans fitted on the sides. The tower has 40 big fans and 5,000 filters to clean the air.
- These are electrostatic air filters that can filter out microparticles, including those that constitute smoke, household dust and pollen, according to the project description. A Supervisory Control and Data Acquisition (SCADA) system has been installed in the tower to collect data and monitor its functioning.
- This tower has been established as a pilot project and detailed studies will be conducted on its performance. IIT-Delhi and IIT-Bombay will analyse data and submit a report on the effectiveness of the tower.
- The tower will take in air from a radius of 1 km. It has a capacity of cleaning 1,000 cubic metres of air per second. It is estimated that the area will see a rapid change in air quality due to this smog tower.
- On January 13 last year, the Supreme Court had ordered the Delhi government to build a 'smog tower' at Connaught Place by April 13, 2020, to control air pollution.
- On the same day, the court also ordered a smog tower to be installed in Anand Vihar by the Central Pollution Control Board, by the same time.

Working of smog towers
- There are different technologies used to clean the air. One uses HEPA filters, (used in indoor air purifiers), which filters PM 2.5 particles. Another uses electrostatic precipitators that attract PM 2.5 particles and collect them at the base of the tower.
- Both would work in closed spaces, but are ineffective in open spaces. We don't know what technology the IIT-Bombay or University of Minnesota is using because that hasn't been shared in public.
- One smog tower costs around Rs 7-8 lakh, so you can do the math. Even worse, if we use filters to clean the air, who is going to dispose of them once they get clogged?"

Havana Syndrome   Science & Technology

Why in the news?
- Recently, the US Vice-President Kamala Harris's trip to Hanoi in Vietnam was delayed due to a possible case of the "Havana Syndrome".

About Havana Syndrome
- Havana Syndrome is a mysterious illness that was first detected at the US Embassy in Havana, Cuba in 2016.

- In late 2016, US diplomats and other employees stationed in Havana reported feeling ill after hearing strange sounds and experiencing odd physical sensations in their hotel rooms or homes.
- From 2016 to 2017, diplomats and staff suddenly developed surprising symptoms like hearing loss, dizziness, and other neurological issues.

Symptoms of Havana Syndrome
- Most people who have had Havana Syndrome heard a loud noise and felt an intense pressure or vibration in their head, dizziness, and pain in their ear or head.
- The neurologic symptoms reported in Havana syndrome are commonly seen in concussions.
- The symptoms go away soon for some people, but others have experienced chronic insomnia, headaches, and even brain damage.

Cause of Havana Syndrome
- The NAS study does point out that the Soviet Union researched the effects of pulsed radio frequency energy more than 50 years ago.
- The committee felt that many of the distinctive and acute signs, symptoms, and observations reported by employees are consistent with the effects of directed, pulsed radio frequency energy.

Yuktdhara   Science & Technology

Why in the news?
- Recently, the Ministry of Rural development has launched a new geospatial planning portal, 'Yuktdhara' to help in facilitating the new MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) assets with the use of remote sensing and GIS (Geographic Information System) based information.

About the Yuktdhara
- Developed by: Jointly developed by ISRO and the Ministry of Rural Development
- Yuktdhara will serve as a repository of assets (Geotags) created under various national rural development programmes such as
  - Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
  - Integrated Watershed Management Programme
  - Per Drop More Crop
  - RashtriyaKrishiVikasYojana etc.
- The new portal under Bhuvan 'Yuktdhara' will facilitate planning of new MGNREGA assets using remote sensing and GIS (geographic information system)-based information.
- Yuktdhara portal would ensure-
  - The quality of the plan
  - Enable a long term monitoring of the assets created over the years for relevance
  - Facilitate identification of new works for resource allocation

Bhuvan Portal
- Previously launched, ISRO'sGeoportalBhuvan is presently a de-facto geospatial platform for several developmental planning activities across India.
- Bhuvan, is the national Geo-portal developed and hosted by ISRO comprising Geo Spatial Data, Services and Tools for Analysis. It has many versatile features
  - Visualization of Satellite Imagery and Maps
  - Analysis
  - Free Data Download
  - Download Reports to name a few
- A citizen-centric mobile application JANMANREGA has helped the rural population by providing feedback using Bhuvan services.

NASA's Boeing Starliner Spacecraft

Why in the news ?
- Recently, the launch of Boeing's uncrewed Starliner Orbital Flight Test-2 (OFT-2) has been postponed once again.

About CST-100 Starliner
- The Starliner, which is supposed to carry more than 400 pounds of NASA cargo and crew supplies, will take roughly 24 hours to reach the ISS, after which it will dock there.
- The spacecraft has been designed to accommodate seven passengers or a mix of crew and cargo for missions to low-Earth orbit.
- It will carry up to four NASA-sponsored crew members and time-critical scientific research.
- The Starliner has an innovative, weldless structure and is reusable up to 10 times with a six-month turnaround time.
- It features wireless internet and tablet technology for crew interfaces.
- It will help NASA to ascertain and certify the transportation system to carry astronauts to and from the space station in the future.

National Bio Entrepreneurship Competition

Why in news ?
- Recently, the **Department of Biotechnology** has launched the **fifth edition of the National Bio Entrepreneurship Competition (NBEC).**

National Bio Entrepreneurship Competition
- NBEC is conducted as a part of the Biotechnology Industry Research Assistance Council (BIRAC) Regional Entrepreneurship Centre, established at Centre for Cellular and Molecular Platforms (C-CAMP) in partnership with BIRAC.
- BIRAC is a Public Sector Enterprise, set up by the Department of Biotechnology (DBT). Centre for Cellular and Molecular Platforms (C-CAMP)
- C-CAMP is one of the centers for technology-based innovation and entrepreneurship in the field of life sciences under the Department of Biotechnology (DBT).
- It intends to develop state-of-the-art technologies and to provide training on these technologies to academia.

> ### About NBEC
> - It is India's largest and most prestigious national competition for bio-entrepreneurs organised by C-CAMP.
> - First Launched in 2017, NBEC has emerged as a flagship platform for bio-entrepreneurs and innovators in India to showcase their deep science driven ideas.
> - It is held annually to identify and nurture deep science-driven business ideas in the life sciences domain that have the potential to break new ground in addressing societal challenges

Zika Virus

Why in the news ?
- The Union Health Ministry has rushed a multidisciplinary team to Maharashtra to monitor the **Zika virus** situation and support the State government in management of infections. Recei, a case of Zika has been reported in Pune district.

About Zika
- The Zika virus is predominantly transmitted by infected mosquitoes from the Aedes genus, mainly **Aedes aegypti.** The Aedes mosquitoes also spread **dengue,** chikungunya and yellow fever.
- The virus was **first identified in Uganda in 1947 in monkeys. Transmission:**
- Apart from the mosquitoes, an infected person can also spread the virus.

Symptoms:

- **Generally, the symptoms include** fever, rash, conjunctivitis, muscle and joint pain, malaise, or headache. It lasts for about two to seven days. Most infected people do not develop any symptoms.
- Zika virus infection during pregnancy can cause infants to be born with **microcephaly** (smaller than normal head size) and other congenital malformations, known as **congenital Zika syndrome.**
- It has no treatment or vaccine. Instead, the focus is on relieving symptoms and includes rest, rehydration and acetaminophen for fever and pain.

IndiGau: India's first Cattle Genomic Chip | Science & Technology

Why in the news ?

- The National Institute of Animal Biotechnology (NIAB), Hyderabad has launched a chip called IndiGau.

About IndiGau

- IndiGau is India's first Cattle Genomic Chip for the conservation of pure varieties of indigenous cattle breeds like, Gir, Kankrej, Sahiwal, Ongole etc.
- It is purely indigenous and the largest cattle chip in the world.
- It has 11,496 markers more than that placed on 777K Illumina chip of US & UK breeds.
- The manufacturing of this chip is in synergy with Rashtriya Gokul Mission and is a great example of Atmanirbhar Bharat.

Utility of IndiGau

- Indigenous bovines are robust and resilient and are particularly suited to the climate and environment of their respective breeding tracts,
- Their productivity is less likely to be impacted by the adversities of climate change.
- The milk of indigenous animals is high in fat and SNF (solids-not-fat) content.

National Programme for Bovine Breeding and Dairy Development

- The NPBBDD has been formulated by merging four ongoing schemes of the Department of Animal Husbandry, Dairying and Fisheries in the dairy sector.
- It was launched in Feb 2014.
- This merger has been done to integrate milk production and dairying activities in a scientific and holistic manner to meet the increasing demand for milk in the country.

National Hydrogen Mission | Science & Technology

Why in the news ?

- During his I-Day speech, the PM has announced a National Hydrogen Mission and said India will become the world's largest exporter of green hydrogen in the years to come.

About Mission National Hydrogen Mission

- It was proposed in the Union Budget 2021.
- The government's aim is to make India a global hub for the production and export of green hydrogen.
- Green hydrogen energy is vital for India to meet its Nationally Determined Contributions.
  - It is a clean-burning molecule, which can decarbonise a range of sectors including iron and steel, chemicals, and transportation.
- The initiative has the potential of transforming transportation.

Major Activities to be carried out under the Mission

- Creating volumes and infrastructure
- Demonstrations in niche applications
- Goal-oriented Research & Development
- Facilitative policy support
- A robust framework for standards and regulations for hydrogen technologies

Why in the news?

- **Director General of Indian Coast Guard (ICG) K Natarajan** has been elected as the next executive director of the ReCAAP. The Indian candidate defeated the candidates of China and the Philippines. This fact highlights the **Indian contribution to maritime security**.

About RECAAP AGREEMENT

- **ReCAAP** is the first regional government-to-government agreement to promote and enhance cooperation against piracy and armed robbery against ships in Asia.
- **Launched in:** ReCAAP Agreement was launched in 2006 with 14 Asian Contracting Parties including North, Southeast, and South Asian countries.
- **Members**: Currently, it has 20 Contracting Parties including Europe (Norway, the Netherlands, Denmark, and the United Kingdom), Australia, and the United States.
- **Other Members include** India, Bangladesh, Sri Lanka, China, Japan, South Korea, Laos, Myanmar, Thailand. Philippines, Brunei, Vietnam. Cambodia and Singapore
- The three pillars of co-operation under the ReCAAP agreement are:
  - Information sharing
  - Capacity building
  - Mutual legal assistance

RECAAP

- The ReCAAP is the first regional Government-to-Government agreement to deal with piracy and armed robbery at sea in Asia.
- The ReCAAP Agreement was launched in November 2006 with14 Asian Contracting Parties including North, Southeast, and South Asian countries.
- It has 20 Contracting Parties today, including Europe (Norway, the Netherlands, Denmark, and the United Kingdom), Australia, and the United States.
- The ReCAAP Information Sharing Centre (ReCAAP ISC) was established in Singapore on November 29, 2006.
- At the 12th Governing Council Meeting in 2018, the Council announced that ReCAAP ISC has met the criteria to be a Centre of Excellence for information sharing in combating piracy and armed robbery against ships at sea.

ICS

- An ISC has been established in Singapore to collate and disseminate the information among the contracting parties and the maritime community.
- Capacity building workshop is organized annually by the ISC and is co-hosted by one of the contracting parties.
- The main objective of this workshop is to share the updated situation of piracy and armed robbery against ships in Asia and the best practices of Asian countries.
- The workshop also aims to deepen the knowledge of participants on various issues related to piracy and armed robberies such as international laws, prosecution process, forensics, and emerging threats.

Defence Cyber Agency (DCA)

Defence & Security

Why in the news?

- Defence Cyber Agency (DCA) is now fully functional under the aegis of the Ministry of Defence.
- It will bolster India's capabilities to tackle threats emanating from hackers, mostly from China and Pakistan.

About DCA

- It draws **personnel from all three branches** of the Armed Forces. The head of the DCA is an **officer of two-star rank.** He reports to the Chief of Defence Staff (CDS). It's headquartered at New Delhi.

Need to Restructure Institutions Managing Cybersecurity

- There was a **recent cyber-attack on the Kudankulam nuclear power** plant. Hackers were also targeting the ISRO as it was working on its moon mission. These attacks have pointed towards a larger problem that must be addressed in terms of **India's internet governance**.
- India's institutional ecosystem on cybersecurity is **diffused and fragmented**. Several ministries and agencies manage cybersecurity.
  - The Ministry of Electronics and Information Technology (MEITY), Ministry of Home Affairs (MHA), Ministry of Defence, the National Security Council Secretariat and the National Technical Research Organisation have their own cybersecurity units.
  - Additional specialised units include the Computer Emergency Response Team (CERT), the National Critical Information Infrastructure and the National Cyber Coordination Centre.
- So far, **Command and control** has **not risen as a policy priority** in cyberspace.
- **Absence of a unified agency** has affected India's ability to take a **principled stand on the issue of global governance of cyberspac**e.
- Till now, India has not unveiled a clear position regarding responsible state behaviour in cyberspace.

Defence India Startup Challenge (DISC)   Defence & Security

Why in the news?
- **5th edition of Defence India Startup Challenge** (DISC 5.0) has been launched under **Innovations for Defence Excellence - Defence Innovation Organisation** (iDEX-DIO) program.

Key Highlights
- It is launched with 35 Problem Statements (PS) from Armed Forces and OFB/DPSUsfor resolution by startups & innovators.
- The winners receive grants up to Rs 1.5 crore from iDEX, along with support from Partner Incubators and guidance from the Nodal Officers who are the ultimate users.
- The launch of DISC 5.0 will be a massive leap towards leveraging the startup ecosystem to develop India's defence technologies, equipment design and manufacturing capabilities.
- It will encourage startups to become more attuned to innovative concepts and inculcate the approach of creative thinking in India's budding entrepreneurs.

What is Defence India Startup Challenge?
- It was launched by the Innovations for Defence Excellence (iDEX), Defence Innovation Organisation (DIO) in 2018.
- It has been launched by Ministry of Defence in partnership with Atal Innovation Mission.
- It is aimed at supporting Startups/MSMEs/Innovators to create prototypes and/or commercialize products/solutions in the area of National Defence and Security.

About Defence India Startup Challenge
- It will help in creating functional prototypes of products/technologies relevant for national security (prototyping), and spur fast-moving innovation in the India defence sector.
- It will help new tech products/technologies find a market and early customer (commercialization) in the form of the Indian Defence Establishment.

Eligibility to participate in Defence India Startup Challenge
- Start-ups, as defined and recognized by Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry, Government of India.
- Any Indian company incorporated under the Companies Act 1956/2013, primarily a Micro, Small and Medium Enterprises (MSME) as defined in the MSME Act, 2006.
- Individual innovators are also encouraged to apply (research & academic institutions can use this category to apply).

Role of iDEX in Defence India Startup Challenge
- The iDEX provides a platform for different stakeholders in the defence & aerospace sectors to oversee technology development and potential collaborations in the specific field.
- The iDEX is able to utilise the strong science, technology and research talent base of the country to develop new capabilities in defence innovation.
- The iDEX had been designed to infuse latest technology into military warfare closely intertwined with the needs of the Services and reduce dependence on imports.

India's First Indigenous Aircraft Carrier- INS Vikrant | Defence & Security

Why in news?
- India's **first indigenous aircraft carrier (IAC-1)**, named '**Vikrant**', has started its sea trials. It is the first aircraft
- carrier designed and built in India as a part of Atmanirbhar Bharat. It is likely to be commissioned in 2022.

About Vikrant
- **Vikrant** is the first aircraft carrier designed and built in India. It has over 76 percent of the material and equipment which is indigenous.
- **Vikrant is named after the** Majestic-class aircraft carrier, which was operated by the Indian Navy from 1961 to 1997.
- **The ship is 262 m long**, It has over 2,300 compartments designed for a crew of around 1700 people including specialised cabins to accommodate women officers.
- **The ship is equipped** with numerous high-end technologies, including network-centric distributed data processing and control systems and state-of-the-art weapons such as the Barak LR-SAM (long-range surface-to-air missile) and sensors.

Significance
- India's area of responsibility ranges from the east coast of Africa to the Western Pacific. High percentage of India's trade passing through the South China Sea. Also, India is a dominant force in Indo-Pacific region.
- Aircraft Carrier enhances a Navy's capability to travel far from its home shores to carry out air dominance operations.
- Hence, IAC will help Indian Navy in its **transition from Brown Water Navy to Blue Water Navy** (one that has the capacity to operate across the high seas).
- Aircraft carriers are a necessity for India to tackle the China threat.
- So far, only five or six nations have the capability of manufacturing an aircraft carrier. India joins this elite club now. It will give a boost to **Make-in-India programme**.

Exercise Konkan 2021 | Defence & Security

Why in news?
- The Exercise Konkan was held between INS Tabar and HMS Westminster in the English Channel recently.

About the Exercise
- It is a Naval exercise held between India and United Kingdom(UK)
- The exercise included the participation of integral helicopters of the two ships   and the Falcon Electronic Warfare aircraft.
- A wide range of exercises including co-ordinated anti-submarine procedures, firing drills, combined maritime picture compilation, combat formation maneuvering and replenishment at sea were conducted.
- The Indo-UK Naval exercise included the participation of integral helicopters of the two ships and the Falcon Electronic Warfare aircraft.
- Exercise Konkan 2021 consolidated interoperability and helped cement the strong bonds of friendship between the two navies.
-

Why in the news?

- It is a community policing initiative launched recently.

About Ummeed programme-

- Ummeed is a step together, towards a better tomorrow', centred on the theme of communal harmony.
- The initiative will promote unity and mutual trust between communities so that everyone can live pecefully.
- The programme was organised by the northeast district police at Shyam Lal College.
- During the programme, the commissioner said that since it is not feasible to deploy policemen in every nook and corner, a self-disciplined and service-oriented society is required to assist the police to establish peace and harmony.
- 'Ummeed' is an initiative to strengthen the common chord of togetherness and mutual trust between communities in order to live peacefully in the spirit of coexistence.

Why in the news?

- NITI Aayog and Ministry of Development of North Eastern Region (DoNER) will launch the first edition of the North Eastern Region District Sustainable Development (NERDSD) Goal Index Report and Dashboard 2021-22 .

About the index

- This will be first of its kind region-wide district SDG index in India.
- Launch of NERDSD goal index report is also a milestone in the efforts towards localising Sustainable Development Goals across 120 Districts of the north-eastern states of India namely Assam, Arunachal Pradesh, Mizoram, Manipur, Meghalaya, Sikkim, Nagaland and Tripura.
- This index has been prepared by collaborative efforts of NITI Aayog and DoNER Ministry.
- It has been prepared on the basis of NITI Aayog's SDG India Index.

Significance

- The index will be launched in order to facilitate a platform to identify crucial gaps and inform interventions in order to fast track progress towards achieving the SDGs. It will measure the performance of the districts across eight States.

United Nations Development Programme (UNDP)

- It is the global development network of United Nations that promotes technical and investment cooperation in nations. It connects countries to knowledge, experience and resources in order to help people in building a better life for themselves. It is funded entirely through voluntary contributions from UN member states. It is operating across 177 countries to achieve Sustainable Development Goals (SDGs).

Why in the news?

- In the Global Youth Development Index, 2020 India is ranked 122nd among 181 countries. The index has been released by the Commonwealth Secretariat in London.

About the Index

- The index ranks countries between 0.00 (lowest) and 1.00 (highest) based on the developments in youth education, equality and inclusion, employment, health, peace and security, and political and civic participation.
- It looks at 27 indicators including literacy and voting to showcase the state of the world's 1.8 billion people between the age of 15 and 29.
- The Index reveals that the conditions of young people have improved around the world by 3.1 per cent between 2010 and 2018.

Key Findings of the Report

- The triennial rankings of youth development earned India among the top 5 risers on the index between 2010 and 2018, alongside Afghanistan and Russia, raising their average points by 15.74% across areas such as education and employment.
- According to the 2020 Global Youth Development Index "The top 5 risers from 2010 to 2018 were India, Russia, Afghanistan, Ethiopia and Burkina Faso.
- Singapore ranked topmost followed by Slovenia, Norway, Malta and Denmark. Chad, the Central African Republic, South Sudan, Afghanistan and Niger came last respectively.

Asian Development Bank (ADB)

Why in the news?
- India and the ADB has signed a $500 million loan to expand metro rail network in Bengaluru.

About ADB
- ADB (founded in 1966) is an international development finance institution whose mission is to help its developing member countries **reduce poverty and improve the quality of life**.
- **Headquartered in Manila**, ADB is owned and financed by its 67 members, of which 48 are from the Asia Pacific region and 19 are from other parts of the globe.
- The two largest shareholders are the Japan(15.677%) & United States(15.567%). India is a founding member with share (5.812%).
- ADB is an official United Nations Observer.
- Voting rights in ADB are **distributed in proportion with members' capital subscriptions**.

UNSC Debate on Maritime Security

Why in the news ?
- PM Modi chaired a high-level open debate on maritime security held by UNSC. He became the **first Indian Prime Minister** to preside over a UN Security Council Open Debate.

Highlights of the UNSC debate on maritime security
- India, as the UNSC president for August 2021, noted the threats to maritime safety and security and called upon the members to consider implementing the 2000 UN Convention against Transnational Organized Crime.
- India emphasized on safeguarding the legitimate uses of the oceans and security of coastal communities, affirming that international law — reflected in the 1982 United Nations Convention on the Law of the Sea (UNCLOS), among other global instruments — provides the legal framework for combating these illicit activities.
- India also called on the member States to implement the International Ship and Port Facility Security Code and Chapter XI-2 of the International Convention for the Safety of Life at Sea, and to work with the International Maritime Organization (IMO) to promote safe and secure shipping while ensuring freedom of navigation.

Efforts By India To Enhance Maritime Cooperation
- **Deep Ocean Mission** – Launched in 2021, it proposes to explore the deep ocean similar to the space exploration started by ISRO.
- **Indo-Pacific Oceans' Initiative** (IPOI) - Put forwarded in 2019, it focusses on seven pillars of maritime security including **Maritime Ecology; Maritime Resources; Capacity Building and Resource Sharing; Disaster Risk Reduction and Management; Science, Technology and Academic Cooperation; and Trade Connectivity and Maritime Transport.**
- **White Shipping Information Fusion Centre** established in Gurugram in 2018 for Sharing data on threats to commercial shipping
- **SAGAR** (Security and Growth for All in the Region) - Articulated in 2015, it focusses on cooperative measures for sustainable use of oceans and providing a framework for a safe, secure and stable maritime domain in the region.
- Indian Navy has been **patrolling to counter piracy** in the Indian Ocean since 2008.

United Nations Convention on the Law of the Sea (UNCLOS)
- United Nations Convention on the Law of the Sea (UNCLOS) is the international agreement defining the rights and responsibilities of nations with respect to their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.
- UNCLOS replaces the older 'freedom of the seas' concept, dating from the 17th century: national rights were limited to a specified belt of water extending from a nation's coastlines according to the 'cannon shot' rule.
- All waters beyond national boundaries were considered international waters: free to all nations, but belonging to none of them.
- While India ratified UNCLOS in 1995, the U.S. has failed to do it so far.

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