

SDG INDIA
Index & Dashboard 2020-21
Partnerships in the Decade of Action

ATF BOND

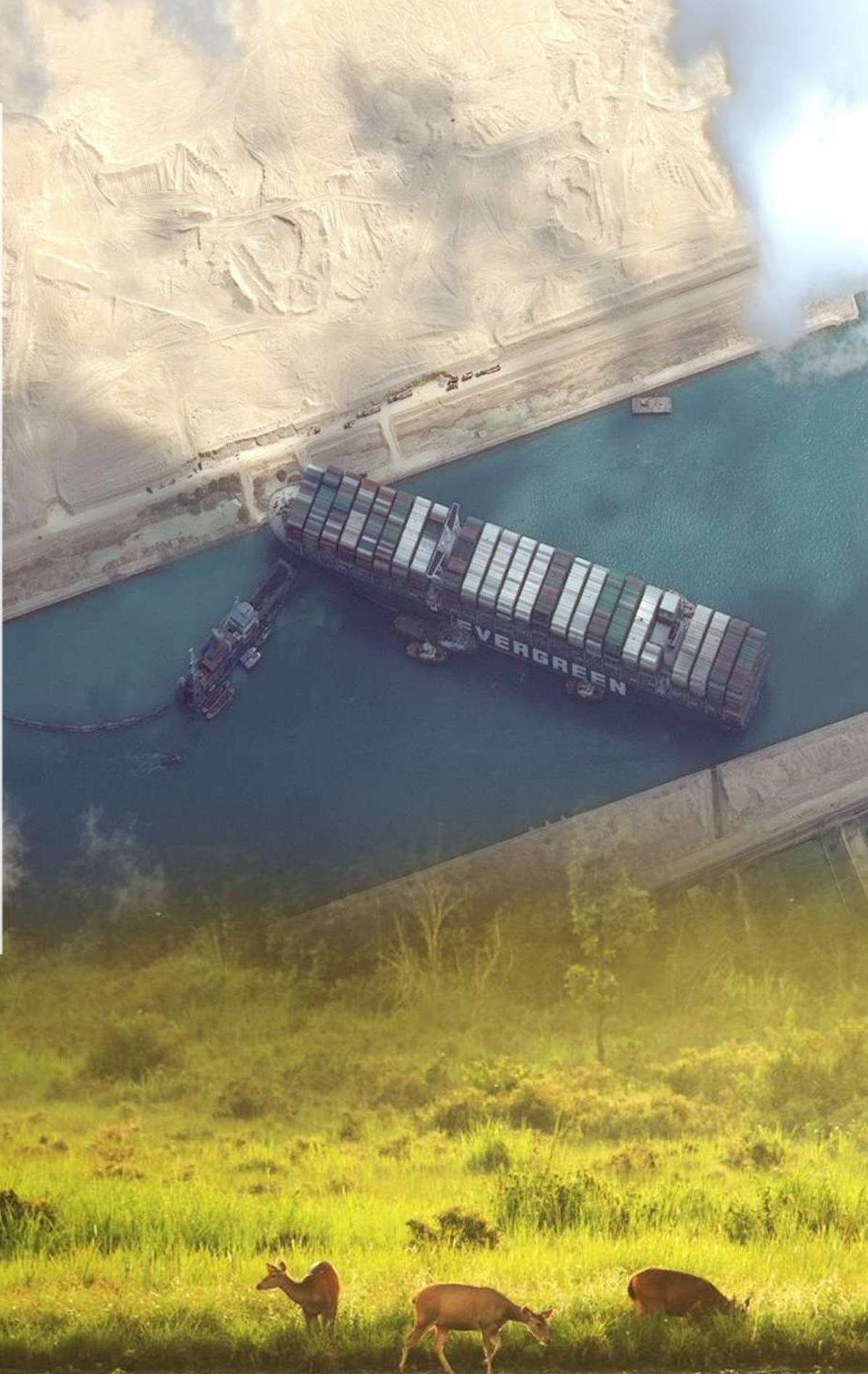
Members of Parliament
Local Area Development
Scheme (MPLADS)

Ex-Desert Flying 2021
At War in
India Air Force

Khadi India

PROJECT RE-HAB
REDUCING ELEPHANT - HUMAN ATTACKS USING BEES

Science for Biodiversity



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1. ECONOMY

1. Cryptocurrency and Regulation of Official Digital Currency Bill, 2021

Why in News?

- The Internet and Mobile Association of India (IAMAI) recently said that there is some amount of ‘secrecy’ around the Cryptocurrency and Regulation of Official Digital Currency Bill, 2021.

What are Blockchains?

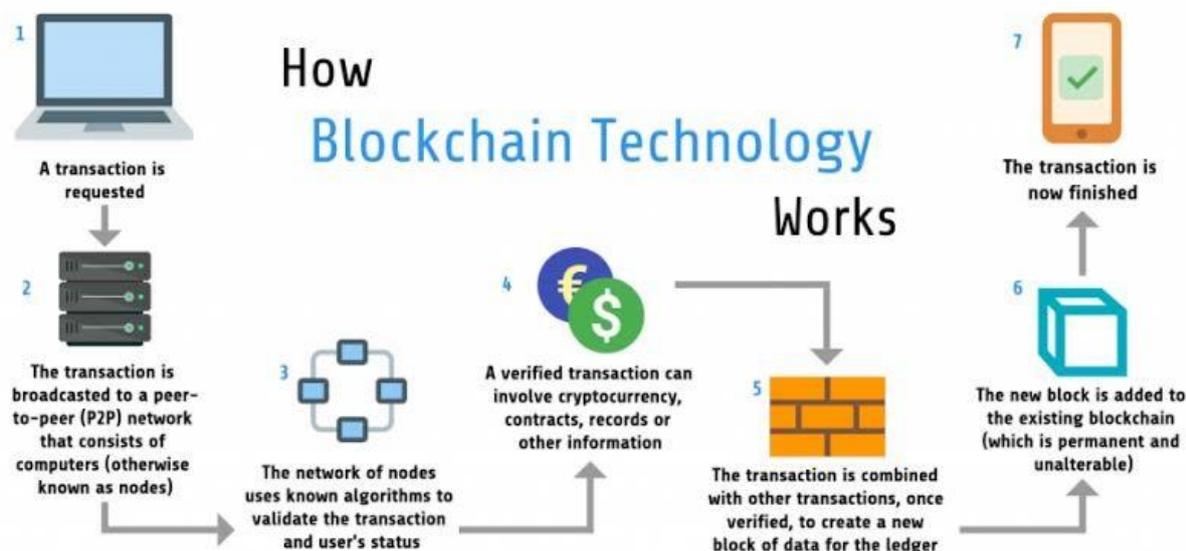
- Blockchains are a new data structure that is secure, cryptography-based, and distributed across a network. The technology supports cryptocurrencies such as Bitcoin, and the transfer of any data or Digital Asset.
- Spearheaded by Bitcoin, blockchains achieve consensus among distributed nodes, allowing the transfer of digital goods without the need for centralized authorization of transactions.
- The present Blockchain Ecosystem is like the early Internet, a permission less innovation Environment in which email, the World Wide Web, Napster, Skype, and Uber were built.

What are Cryptocurrencies?

- Cryptocurrencies are digital currencies in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank.
- Examples: Bitcoin, Ethereum etc.

Background of the Issue:

- The Supreme Court, last year, set aside an April 6, 2018, circular of the Reserve Bank of India (RBI) that prohibited banks and entities regulated by it from providing services in relation to virtual currencies (VCs).
- RBI has not come out with a stand that any of the entities regulated by it namely, nationalized banks/scheduled commercial banks/cooperative banks/NBFCs, have suffered any loss or adverse effect directly or indirectly, on account of virtual currencies (VCs)
- Hence, the RBI circular is “disproportionate” with an otherwise consistent stand taken by the central bank that VCs were not prohibited in the country.
- Besides, the court found that the RBI did not consider the availability of alternatives before issuing the circular.
- Besides, the court referred to the Centre’s failure to introduce an official digital rupee despite two draft Bills and several committees.



What is the Purpose of the bill?

- The purpose of the law has been described as:
 - ✓ to create a facilitative framework for an official digital currency issued by the RBI.
 - ✓ to “prohibit all private cryptocurrencies in India”.
- The Bill also seeks to prohibit all private cryptocurrencies in India, however, it allows for certain exceptions to promote the underlying technology of cryptocurrency and its uses.

Regulation of Cryptocurrencies:

- The government has, from time to time, suggested that it does not consider cryptocurrencies to be legal tender.
- The disapproval of cryptocurrencies by government is due to fact that such currencies are highly volatile, used for illicit Internet transactions, and wholly outside the ambit of the state. In 2018, the RBI did send a circular to banks directing them not to provide services for those trading in cryptocurrencies.
- Those challenging the RBI Circular in Supreme Court had argued that these were commodities and not currencies. Therefore, RBI did not have the Jurisdiction.
- The circular was set aside by SC, which found it to be “disproportionate”.
- Regulatory bodies like RBI and SEBI etc. also don’t have a legal framework to directly regulate cryptocurrencies as they are neither currencies nor assets or securities or commodities issued by an identifiable user.

Why the Govt., Wants to ban Cryptocurrencies?

- **Sovereign guarantee:** Cryptocurrencies pose risks to consumers. They do not have any sovereign guarantee and hence are not legal tender.

- **Market volatility:** Their speculative nature also makes them highly volatile. For instance, the value of Bitcoin fell from USD 20,000 in December 2017 to USD 3,800 in November 2018.
- **Risk in security:** A user loses access to their cryptocurrency if they lose their private key (unlike traditional digital banking accounts, this password cannot be reset).
- **Malware Threats:** In some cases, these private keys are stored by technical service providers (cryptocurrency exchanges or wallets), which are prone to malware or hacking.
- **Money Laundering:** Cryptocurrencies are more vulnerable to criminal activity and money laundering. They provide greater anonymity than other payment methods since the public keys engaging in a transaction cannot be directly linked to an individual.
- **Regulatory bypass:** A central bank cannot regulate the supply of cryptocurrencies in the economy. This could pose a risk to the financial stability of the country if their use becomes widespread.
- **Power Consumption:** Since validating transactions is energy-intensive, it may have adverse consequences for the country's energy security (the total electricity use of bitcoin mining, in 2018, was equivalent to that of mid-sized economies such as Switzerland).

What are the Challenges?

- This legal ambivalence has not, however, been able to prevent cryptocurrencies from having a growing user base in India.
- Their attraction may only grow now, given that the most well-known of them as also the most valuable, Bitcoin, has hit new peaks in price and is gaining influential followers such as Tesla founder Elon Musk.
- Cryptocurrency exchanges, which have sprung up, are reportedly lobbying with the Government to make sure these Currencies are regulated rather than banned outright.

Way Forward:

- Smart regulation is preferable, as a ban on something that is based on a technology of distributed ledger cannot be implemented for all Practical Purposes.
- Even in China, where cryptocurrencies have been banned and the Internet is controlled, trading in cryptocurrencies has been low but not non-existent.
- The government must resist the idea of a ban and push for Smart Regulation.

2. Mullaperiyar Case Hearing on March 16

Why in News?

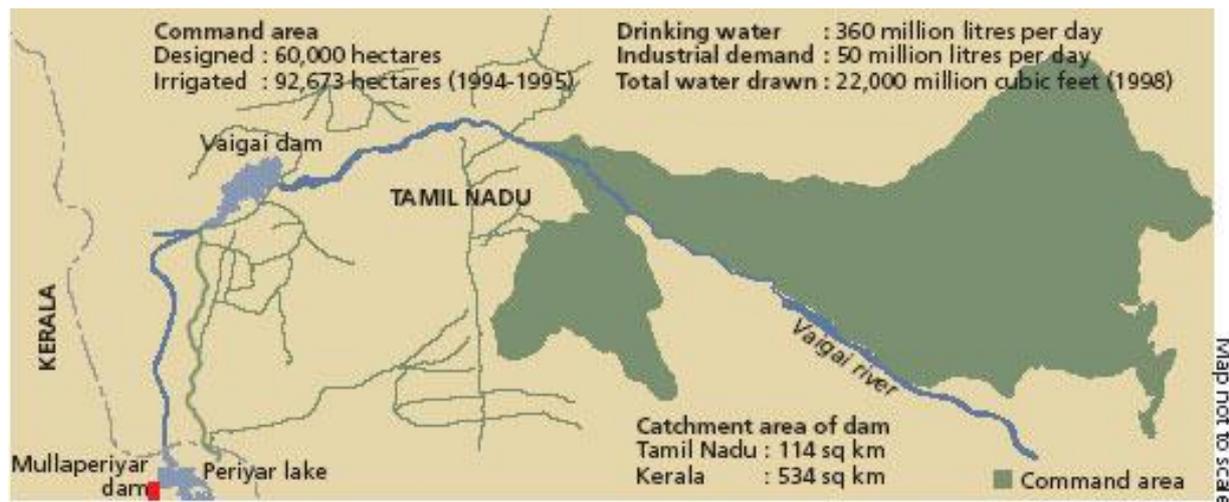
- The Supreme Court recently agreed to a request made by the Centre to postpone the hearing of a case concerning the safety of the 126-year-old Mullaperiyar Dam but made it clear that no further adjournment requests would be entertained by the court.

About Mullaperiyar Dam:

- The Mullaperiyar Dam is a masonry gravity dam on the Periyar River in the Indian state of Kerala.
- The dam situated at the confluence of the Mullayar and Periyar rivers
- It is located 881 m (2,890 ft) above mean sea level, on the Cardamom Hills of the Western Ghats in Thekkady, Idukki District of Kerala, South India.
- It was constructed between 1887 and 1895 by John Pennycuick and also reached in an agreement to donate water eastwards to the Madras Presidency area (present-day Tamil Nadu).
- The Periyar National Park in Thekkady is located around the dam's reservoir.
- The dam is located in Kerala on the river Periyar, but is operated and maintained by Tamil Nadu state.
- Dam was given to British-ruled Madras Presidency on a 999-year lease in 1886.
- The agreement was renewed in 1970.
- Tamil Nadu was given rights to the land and the water from the dam as well as the authority to develop hydro-power projects at the site, and Kerala would receive rent in return.

About Periyar River:

- The Periyar River is the longest river in the state of Kerala with a length of 244 km.
- It is also known as 'Lifeline of Kerala' as it is one of the few perennial rivers in the state.
- A perennial river is a channel that has continuous flow in parts of its stream bed all year round.
- Periyar River originates from Sivagiri hills of Western Ghats and flows through the Periyar National Park.
- The main tributaries of Periyar are Muthirapuzha, Mullayar, Cheruthoni, and Perinjankutti.



Source: A Mohanakrishnan 1997, *History of the Periyar dam with century long performance*, Central Board of Irrigation and Power, New Delhi

Mullaperiyar dam is in Kerala, Tamil Nadu its main beneficiary

What is the Controversy?

- For Tamil Nadu, the Mullaperiyar dam and the diverted Periyar waters act as a lifeline for Theni, Madurai, Sivaganga and Ramnad districts, providing water for irrigation and drinking, and also for generation of power in Lower Periyar Power Station.
- Tamil Nadu has insisted on exercising its unfettered rights to control the dam and its waters, based on the 1886 lease agreement.
- Kerala has pointed out the unfairness in the 1886 lease agreement and has challenged its validity.
- However, safety concerns posed by the 119-year-old dam to the safety of the people of Kerala in the event of a dam collapse have been the focus of disputes from 2009 onwards.
- Kerala's proposal for decommissioning the dam and constructing a new one was challenged by Tamil Nadu. Idukki district, where the dam is located, is earthquake-prone and has experienced multiple low-intensity quakes. So, the dam is situated in a seismically active zone. A 2009 report by IIT Roorkee stated that the dam "was likely to face damage if an earthquake of the magnitude of 6.5 on the Richter scale struck its vicinity when the water level is at 136 feet". It poses danger to life and property to three million people living in the vicinity of the reservoir living downstream.
- In early August 2018, on Mr. Joy's plea, the court agreed with the conclusion of the disaster management sub-committee that the water level in the reservoir should be maintained two or three feet below the permissible limit of 142 feet till August 31 as an immediate precaution to guard against floods or other disasters.

- The sub-committee had met on an urgent basis in the aftermath of the deluge that ravaged Kerala where the dam is located. It informed the court that the water level in the reservoir was 139.998 feet.

Water Lowering and Repairs:

- On the orders of the CWC, the Tamil Nadu government lowered the storage level from 152 feet to 142.2 feet then to 136 feet, conducted safety repairs and strengthened the dam.
- It becomes difficult to sustain agriculture if water level is not increased.
- One estimate states that “the crop losses to Tamil Nadu, because of the reduction in the height of the dam, between 1980 and 2005 are a whopping Rs. 40,000 crores.

What is the Current Issue?

- Resident of Idukki district approached the court in 2018 during the heights of the flood situation in Kerala. He highlighted the perils faced by the people living downstream Mullaperiyar dam on the Periyar basin. He said there was lack of coordination, no disaster management plan and people were living in constant fear of flash floods.
- Tamil Nadu had termed his petition a “clever device” to circumvent the 2014 judgment of the court that fixed the permissible water limit at 142 feet. The verdict also saw the setting up of a supervisory committee for the Mullaperiyar dam.
- The court, however, proceeded to allay the apprehensions of Tamil Nadu, saying it would only go into the disaster management aspect and none other.

1.1. ECONOMY SNIPPETS

1. Nag River Pollution Abatement Project

Why in News?

- The Nag River Pollution Abatement Project has been approved at a cost of Rs. 2,117.54 Crores.

Highlights:

- The Nag river, which flows through Nagpur city, thus Giving its name to the city, is now a Highly Polluted water Channel of Sewage and Industrial Waste.
- The Nag River Pollution Abatement Project, Approved under the National River Conservation Plan, will be implemented by the National River Conservation Directorate, NRCD.
- It will reduce the pollution level in terms of Untreated Sewage, Flowing Solid waste and other impurities flowing into the Nag river and its Tributaries.

National River Conservation Directorate:

- The National River Conservation Directorate (NRCD) is implementing the Centrally Sponsored Schemes of National River Conservation Plan (NRCP) and National Plan for Conservation of Aquatic Eco-systems (NPCA) for the conservation of rivers, lakes and wetlands in the country.
- NRCD is under the Ministry of Environment, Forests and Climate Change.
- NRCD only provides financial assistance to the State Governments/local bodies to set up infrastructure for pollution abatement of rivers in identified polluted river stretches under the National River Conservation Plan (NRCP).
- The objective of the NRCP is to improve the water quality of the rivers, which are the major water sources in the country, through the implementation of pollution abatement works.

2. Central Revenues Control Laboratory (CRCL)

Why in News?

- Central Revenues Control Laboratory gets recognised as a Regional Customs Laboratory (RCL) of the World Customs Organisation.

Highlights:

- CRCL has been recognized as a Regional Customs Laboratory (RCL) of the World Customs Organisation (WCO) for Asia-Pacific Region. With its recognition as RCL, CRCL joins a select group of Customs Laboratories in the region like those in Japan & Korea.

CRCL:

- Established in 1939, CRCL is the headquarters of 14 Revenue Laboratories, including 2 laboratories working at Government Opium & Alkaloid Works, Ghazipur & Neemuch.
- CRCL is a subordinate office under the control of the Central Board of Indirect Taxes and Customs, Department of Revenue, Ministry of Finance, GOI.
- Read more about the Central Board of Indirect Taxes and Customs (CBIC) in PIB dated Nov 7, 2019 under the headline, 'DIN System of CBIC'.
- Laboratories under the CRCL assist in the field formations in chemical analysis of samples of various trade commodities to enable appropriate assessment of duties.
- These laboratories also assist in the enforcement of Customs Act, NDPS Act, GST Laws, Central Excise Act and other allied Acts including for the purpose of environment protection, food safety, etc.

3. Issues with the Power Sector Reforms

Why in News?

- The debt burden of discoms is estimated to touch 4.5 lakh crore by the end of 2020-21. This high level of debt underscores the need for reforms in the discoms. With this in view, RLRBSD has been launched by the Centre.

Reforms-Linked, Result-Based Scheme for Distribution' (RLRBSD):

- In her FY22 Budget speech, Finance Minister proposed Electricity (Amendment) Bill, 2021, which intends to delicense the distribution business, bring in competition, and give the consumer power to choose her supplier.
- She also unveiled the Rs 3 lakh crore electricity distribution reform programme to reduce losses and improve the efficiency of discoms.
- Against this background, the RLRBSD aims at helping discoms trim their electricity losses to 12-15% from the present level.
- The aggregate technical and commercial (AT&C) losses and shortfall in the average revenue realisation from the sale of electricity vis-a-vis the average cost of supply or the ACS-ARR gap, are major causes for losses of discoms.
- Accordingly, the scheme sets the target for both to be achieved by 2025.
- It also aims to gradually narrow the deficit between the cost of electricity and the price at which it is supplied to 'zero' by March 2025.
- It will also have a compulsory pre-paid and smart metering component to be implemented across the power supply chain, including in about 250 million households.

Funding for RLRBSD:

- The Centre is expected to contribute around Rs 60,000 crore to the scheme's corpus.
- The rest may be raised from multilateral funding agencies such as ADB and World Bank (WB).
- The Centre's contribution will be met through the previous commitment of the ongoing schemes, viz. the Integrated Power Development Scheme (IPDS) and the Deen Dayal Upadhyaya Gram Jyoti Yojna (DDUGJY).
- The funds will be released subject to discoms meeting reform-related milestones.

Analysing RLRBSD Against the Context of UDAY:

- Under UDAY, discoms were required to reduce AT&C losses from 20.7% during 2015-16 to 15% by 2018-19.

- During 2019-20, their AT&C losses were 18.9% against the 15% target for 2018-19.
- Further, they were to reduce the ACS-ARR gap from Rs 0.59 per unit during 2015-16 to 'zero' by 2018-19.
- The ACS-ARR gap during 2019-20, stood at Rs 0.42 per unit against target of 'zero' for 2018-19.
- Simultaneously, the government gave them a financial restructuring package (FRP).
- The FRP was nothing but a condoning of discoms' staggering debt of about Rs 4 lakh crore.
- Against this backdrop, aims of achieving those targets by 2025 under RLRBSD, which should have been achieved by 2018-19 under UDAY seems difficult.

3 Factors that contribute to debt of Discoms

1. At the root of persistent and increasing losses of discoms is the orders issued by state Governments to sell Electricity to some Preferred Consumers, viz. poor households and Farmers.
 - ✓ Electricity is supplied to these customers either at a fraction of the cost of purchase, Transmission and Distribution, or Even Free.
 - ✓ On the units sold to these Groups, Discoms Incur Colossal Under-Recovery.
2. This is aggravated by AT&C losses—most of it plain theft.
3. Inflated tariff allowed to independent power plants (IPPs) under purchase agreements adds to the revenue shortfall.

4. New Umbrella Entities (NUEs)

Why in News?

- The private companies have recently shown interest in setting up New Umbrella Entities (NUEs) for payment systems - an idea floated by the Reserve Bank of India (RBI).
- The aim is to create an alternate mechanism to the existing National Payments Corporation of India (NPCI).

Highlights:

- It will be a non-profit entity that will set-up, manage and operate new payment systems, especially in the retail space such as ATMs, white-label PoS; Aadhaar-based payments and remittance services.
- It will develop new payment methods, standards and technologies.
- These will operate clearing and settlement systems, identify and manage relevant risks such as settlement, credit, liquidity and operation and preserve the integrity of the system.

- These will monitor retail payment system developments and related issues in the country and internationally to avoid shocks, frauds and contagions that may adversely affect the System and the Economy in general.
- The umbrella entity for providing retail payments system is NPCI, which is a non-profit entity, owned by banks.
- NPCI operates settlement systems such as UPI, AEPS, RuPay, Fastag, etc.
- The Players in the payments space have indicated the various pitfalls of NPCI being the only entity managing all of retail payments systems in India.
- To Increase Competitiveness: RBI's plan to allow other organisations to set up umbrella entities for payments systems aims to expand the competitive landscape in this area.
- Players planning to establish these NUE aim to get an even bigger share in the digital payments sector. The umbrella entity shall have a minimum paid-up capital of Rs. 500 crore.
- No single promoter or promoter group should have more than 40% investment in the capital of the entity. A minimum net worth of Rs. 300 crore should be maintained at all times.
- Governance Structure: The NUE should conform to the norms of corporate governance along with 'fit and proper' criteria for persons to be appointed on its board.
- The RBI retains the right to approve the appointment of directors as also to nominate a member on the board of the NUE.
- Foreign Investment: Allowed in NUEs as long as they comply with the existing guidelines.

5. Glycemic Index in Rice

Why in News?

- The Union Minister of Agriculture and Farmers Welfare has provided some useful information about some indigenous varieties of rice.

Indigenous Varieties of rice:

- Indigenous varieties of rice are being promoted through varieties of programmes.
- 574 indigenous varieties of rice have been propagated and tested at more than 10,000 farmers' fields.
- Nutritional profiling of 300 selected rice varieties has been done for market linkage and better price to the farmers.
- Farmers are also being trained on conservation, improvement and use of traditional/ indigenous varieties through participatory variety selection.

- Further, for access to seeds of these indigenous varieties, community seed banks have been established.

Key Varieties:

- Lalat and Improved Lalat (GI value: 54) as Low GI
- Swarna, Sambha Mahsuri and Shaktiman (GI value <60) as intermediate GI have been identified
- There is no certification for GI (Glycemic Index) in rice in India.

What is Glycemic Index (GI)?

- GI is a number from 0 to 100 assigned to food, with pure glucose arbitrarily given the value of 100, which represents the relative rise in the blood glucose level two hours after Consuming that food.
- The GI of a specific food depends primarily on the quantity and type of carbohydrate it Contains.
- But it is also affected by the amount of entrapment of the carbohydrate molecules within the food, the fat and protein content of the food, the number of organic acids (or their salts) in the food, and whether it is cooked and, if so, how it is cooked.
- A food is considered to have a low GI if it is 55 or less; high GI if 70 or more, and mid-range GI if 56 to 69.

6. Agriculture Voltage Technology

Why in News?

- An Agri-voltaic system of 105 KW capacity has been developed by ICAR-Central Arid Zone Research Institute, Jodhpur.

Agriculture Voltage Technology:

- This technology can increase the income of farmers by the generation of electricity and growing cash crops simultaneously on the same piece of land.
- Under component-I of the KUSUM (Kisan Urja Suraksha Utthan Mahabhiyan) scheme, there is a provision for installation of the agri-voltaic system in farmers' fields with a capacity ranging from 500 KW to 2 MW.
- Moreover, the National Solar Energy Federation of India (NSEFI) has also documented 13 operational agri-voltaic systems in the country managed by different solar PV functionaries and Public Institutes.

KUSUM Scheme:

- The scheme aims to provide extra income to farmers, by giving them an option to sell additional power to the grid through solar power projects set up on their barren lands.
- It was announced in the Union Budget 2018-19.

Component of KUSUM Scheme:

- The proposed scheme consists of three components:
- **Component-A:**
 - ✓ Renewable power plants of capacity 500 KW to 2 MW will be set up by individual farmers/ cooperatives/panchayats /farmer producer organisations (FPO) on their barren or cultivable lands.
 - ✓ The power generated will be purchased by the DISCOMs at Feed-in tariffs determined by respective SERC.
- **Component-B:**
 - ✓ Installation of 17.50 lakh standalone Solar Powered Agriculture Pumps.
 - ✓ Individual farmers will be supported to install standalone solar pumps of capacity up to 7.5 HP. Solar PV capacity in kW equal to the pump capacity in HP is allowed under the scheme.
- **Component-C:**
 - ✓ Solarization of 10 Lakh Grid-connected Solar Powered Agriculture Pumps is included in this component,
 - ✓ Individual farmers will be supported to solarise pumps of capacity up to 7.5 HP.
 - ✓ Solar PV capacity up to two times of pump capacity in kW is allowed under the scheme.
 - ✓ The excess available energy will be sold to DISCOM.

7. Bharat Bangla Maitri Bridge

Why in News?

- The Prime Minister has recently inaugurated Bharat Bangla Maitri Bridge in Tripura's South district.

Highlights:

- The bridge 'Maitri Setu' has been built over the Feni river which flows between Indian boundary in Tripura State and Bangladesh.
- The Feni originates in the South Tripura district. The river passes through Sabroom town on the Indian side, and meets the Bay of Bengal after it flows into Bangladesh.

- The 1.9 Km long bridge joins Sabroom (in Tripura) with Ramgarh (in Bangladesh).
- The name 'Maitri Setu' symbolises growing bilateral relations and friendly ties between India and Bangladesh.
- The construction was taken up by the National Highways and Infrastructure Development Corporation Ltd at a project cost of Rs. 133 crore.
- The National Highways and Infrastructure Development Corporation Limited is a fully owned company of the Government of India.
- It is responsible for development & maintenance of National Highways & Strategic Roads of India.

Advantages:

- Now Agartala (capital of Tripura) will become the nearest city to an international sea port in India. Tripura will become the 'Gateway of North East' with access to Chittagong Port of Bangladesh, which is just 80 km from Sabroom.

8. AT1 Bonds

Why in News?

- The decision of the Securities and Exchange Board of India (SEBI) to slap restrictions on mutual fund (MF) investments in additional tier-1 (AT1) bonds has raised a storm in the MF and banking sectors.

What are AT1 Bonds?

- AT1 Bonds stand for additional tier-1 bonds. These are unsecured bonds that have perpetual tenure. In other words, the bonds have no maturity date.
- They have a call option, which can be used by the banks to buy these bonds back from investors.
- These bonds are typically used by banks to bolster their core or tier-1 capital.
- AT1 bonds are subordinate to all other debt and only senior to common equity.
- Mutual funds (MFs) are among the largest investors in perpetual debt instruments and hold over Rs 35,000 crore of the outstanding additional tier-I bond issuances of Rs 90,000 crore.

What action has been taken by the Sebi Recently and why?

- In a recent circular, the Sebi told mutual funds to value these perpetual bonds as a 100-year instrument.
- This essentially means MFs have to make the assumption that these bonds would be redeemed in 100 years.

- The regulator also asked MFs to limit the ownership of the bonds to 10 per cent of the assets of a Scheme.
- According to the Sebi, these instruments could be riskier than other debt instruments.

How MFs will be Affected?

- Typically, MFs have treated the date of the call option on AT1 bonds as the maturity date.
- Now, if these bonds are treated as 100-year bonds, it raises the risk in these bonds as they become ultra long-term.
- This could also lead to volatility in the prices of these bonds as the risk increases the yields on these bonds rises.
- Bond yields and bond prices move in opposite directions and therefore, the higher yield will drive down the price of the bond, which in turn will lead to a decrease in the net asset value of MF schemes holding these bonds.
- Moreover, these bonds are not liquid and it will be difficult for MFs to sell these to meet redemption pressure.

What's the Impact on Banks?

- AT1 bonds have emerged as the capital Instrument of choice for state banks as they strive to shore up capital ratios.
- If there are restrictions on Investments by Mutual funds in such bonds, banks will find it tough to raise capital at a time when they need funds in the wake of the soaring bad assets.
- A major chunk of AT1 bonds is bought by Mutual Funds.

Why has the Finance Ministry Asked Sebi to Review the Decision?

- The FM has sought withdrawal of valuation norms for AT1 bonds as it might lead to mutual funds making losses and exiting from these bonds, Affecting capital raising plans of PSU banks.
- The Government doesn't want a disruption in the fund mobilization exercise of banks at a time when two PSU banks are on the privatization block.
- Banks are yet to receive the proposed capital injection in FY21 although they will need more capital to face the asset-quality Challenges in the Foreseeable Future.
- Fitch's own estimate pegs the sector's capital requirement between \$15 billion-58 billion under various stress scenarios for the next two years, of which state banks account for the Bulk.

9. Bhadar Dam

Why in News?

- The Dam Safety Organisation of the Central Water Commission has recently recommended replacement of floodgates of Bhadar dam which were damaged in the flash flood of 2015.

About Bhadar Dam:

- It is located in Rajkot and is second largest in Saurashtra region after Shetrunji dam.
- It is on the Bhadar River in Saurashtra region in Gujarat.
- The Bhadar is one of the major rivers of Kathiawar (Saurashtra) peninsula in Gujarat.
- It originates near Vaddi in Rajkot district at an elevation of 261 m above mean sea level.
- It flows through the Saurashtra region and finally confluence with Arabian sea at Naviobandar (Porbandar).
- The total length of this river is 198 km. It drains about 1/7th of the area of Saurashtra.

Flash Flood:

- Flash floods are typically associated with short, high-intensity rainstorms.
- These are sudden surges in water levels during or following an intense spell of rain.
- These are highly localised events of short duration with a very high peak and usually have less than six hours between the occurrence of the rainfall and peak flood.
- The flood situation worsens in the presence of choked drainage lines or encroachments obstructing the natural flow of water.

Central Water Commission (CWC):

- The Central Water Commission is the apex technical organisation in the country for development of water resources and is an attached organization of the Ministry of Water Resources.
- The Commission is responsible for initiating, coordinating and furthering, in consultation with the State Governments, the schemes for control, conservation, development and utilization of water resources throughout the country for the Purpose of Irrigation, Flood Management, Power Generation, Navigation etc.

10. Statue of Unity

Why in News?

- The 'Statue of Unity' at Kevadia in Gujarat's Narmada district has recently crossed the mark of 50 lakh Visitors since its Inauguration in 2018.

Highlights:

- The Statue of Unity is built in honour of Sardar Vallabhbhai Patel. Sardar Patel is credited with uniting 560 princely states in pre-independent India hence the name of the statue is christened as 'Statue of Unity'.
- It was inaugurated on 31st October, 2018 to mark the 143rd birth anniversary of Sardar Patel. The Statue of Unity is the tallest statue in the world. At 182 metres, it is 23 metres taller than China's Spring Temple Buddha statue and almost double the height of the Statue of Liberty (93 metres tall) in the US.
- In January 2020, it was added in the 'Eight Wonders' of the Shanghai Cooperation Organisation (SCO). India's first seaplane service in Gujarat started from 31st October, 2020. It connects Sabarmati Riverfront in Ahmedabad to the Statue of Unity in Kevadia.
- It is located on the Sadhu Bet island on the Narmada river, which flows between the Satpura and the Vindhya mountain ranges.
- The Statue of Unity was designed by Padma Bhushan recipient sculptor Ram V Sutar and intricate bronze cladding work was done by a Chinese foundry, the Jiangxi Toqine Company (JTQ).

About Sardar Vallabh Bhai Patel:

- He headed various Committees of the Constituent Assembly of India, namely:
 - ✓ Advisory Committee on Fundamental Rights.
 - ✓ Committee on Minorities and Tribal and Excluded Areas.
 - ✓ Provincial Constitution Committee.
- Integrated the farmer's cause in Kheda Satyagraha (1918) and Bardoli Satyagraha (1928) with the national freedom movement.
- The Women of Bardoli bestowed the title 'Sardar' on Vallabhbhai Patel, which means 'a Chief or a Leader'.
- He is Known as the "Iron Man of India" for playing an important role in unification and integration of Indian princely states into the Indian federation and for convincing princely states to align with the Indian Union.

11. Wholesale Price Index (WPI)

Why in News?

- The Office of the Economic Adviser, Department for Promotion of Industry and Internal Trade has recently released the Wholesale Price Index (WPI) for the month of February, 2021.

About Wholesale Price-Inflation:

- It measures the changes in the prices of goods sold and traded in bulk by wholesale businesses to other businesses.
- It is published by the Office of Economic Adviser, Ministry of Commerce and Industry.
- It is the most widely used inflation indicator in India.
- The Major criticism for this index is that the general public does not buy products at wholesale price.
- The base year of All-India WPI has been revised from 2004-05 to 2011-12 in 2017.
- It increased for the second consecutive month to 4.17%. This is the highest since November 2018, when wholesale inflation was at 4.47%.
- It was 2.03% in January 2021 and 2.26% in February 2020. Increase in inflation in food articles, fuel & power has led to this surge.
- The food articles in February saw 1.36% inflation which in January stood at (-) 2.80%. Based on the Consumer Price Index (CPI), it was at 5.03% in February.

Consumer Price Index:

- It measures price changes from the perspective of a retail buyer. It is released by the National Statistical Office (NSO). It calculates the difference in the price of commodities and services such as food, medical care, education, electronics etc, which Indian consumers buy for use.
- It has several sub-groups including food and beverages, fuel and light, housing and clothing, bedding and footwear.

Inflation

- It refers to the rise in the prices of most goods and services of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
- It measures the average price change in a basket of commodities and services over time.
- It is indicative of the decrease in the purchasing power of a unit of a country's currency. This could ultimately lead to a deceleration in economic growth.

- The moderate level of inflation is required in the economy to ensure that production is promoted. Inflation is primarily measured by two main indices —WPI & CPI which measure Wholesale and retail-level Price Changes, Respectively.

12. Mullaperiyar Dam

Why in News?

- The Supreme Court (SC) has recently ordered the Mullaperiyar Dam Supervisory Committee to issue directions on issues concerning the dam's safety.

Highlights:

- The SC constituted a permanent Supervisory Committee in 2014 to oversee all the issues concerning Mullaperiyar dam. The dam is a source of friction between Tamil Nadu and Kerala.

Mullaperiyar Dam:

- It is 123-year-old dam, is located on the confluence of the Mullayar and Periyar rivers in Kerala's Idukki district.
- The dam stands at the height of 53.66 metres and 365.85 metres in length.
- It is operated and maintained by the Tamil Nadu for meeting the drinking water and irrigation requirements of five of its southern districts.
- According to a 999-year lease agreement made during the British rule the operational rights were handed over to Tamil Nadu.
- The dam intends to divert the waters of the west-flowing river Periyar eastward to the arid rain shadow regions of the Tamil Nadu.

Periyar River:

- It is the longest river in the state of Kerala with a length of 244 km.
- It is also known as 'Lifeline of Kerala' as it is one of the few perennial rivers in the state.
- A perennial river is a channel that has continuous flow in parts of its stream bed all year round.
- Periyar River originates from Sivagiri hills of Western Ghats and flows through the Periyar National Park.
- The main tributaries of Periyar are Muthirapuzha, Mullayar, Cheruthoni, Perinjankutti.

13. India Should Abandon its Suspicion of Digital Currency

Why in News?

- The article discusses the advantages of central bank digital currency which could combine the advantages of both fiat money and cryptocurrency.

India's Suspicion of the Cryptocurrencies:

- In 2018, the Reserve Bank of India prohibited regulated entities from providing services to anyone who deals with or settles trades in any virtual currency.
- This was effectively banning Bitcoin trading in the country.
- The Supreme Court lifted this Restriction in 2020.
- There were rumours earlier this year that a new law was in the works that would make it a crime to possess, issue, mine, trade or transfer crypto assets in India.

Thinking of Digital Currencies as Asset Not Currency:

- There are concerns over the speculative nature of cryptocurrencies.
- There are also law enforcement concerns around how digital currencies make it hard for the police to track Down Criminals. One of the most important attributes of a currency is that it should be a stable store of value, and Bitcoin is anything but.
- To deal with this difficulty, it will be helpful to think of digital currencies as just another asset—the digital equivalent of a scarce commodity that, like gold, certain collectors prize.

Difference between Working of Banks and Cryptocurrencies:

- Our financial system relies on banks to Record Transactions.
- It is a 'permissioned' ledger system in that only trusted intermediaries-registered banks under the supervision of the central bank-can make changes to the ledgers to certify that a given transaction has been completed.
- Cryptocurrencies, on the other hand, are 'permissionless' systems that need no intermediary. Instead of a centralized ledger, transactions are recorded on a distributed database. A purely permissionless system has no need of banks.

Role of Banks in Maintaining Financial Health:

- Central banks are not just intermediaries managing the great big financial ledger of the country, they are responsible for its financial health.
- To perform this function, they need to be able to take money out of the system when required or put money back into economic circulation.
- None of this is possible in a Purely Permissionless System.

Advantages of Digitally Native Currencies

- Digitally native currencies are programmable and capable of being incorporated into smart contracts, offering Various Opportunities for Innovative Digital Solutions.
- Since they can be directly allotted to citizens who don't have a bank account, they are ideal for Financial Inclusion.
- Being digitally auditable, transactions can be audited, reducing the scope for illicit activity.
- The challenge is one of integrating the best that digital currencies have to offer into the traditional Financial Paradigm.

Central Bank Digital Currencies as an Alternative

- CBDCs are a completely re-engineered form of money that use a distributed ledger as their underlying technology layer, but are backed by suitable amounts of monetary reserves, just like normal fiat currency. Many countries have been toying with the idea of a central bank digital currency (CBDC).
- They are run by central banks along with select financial entities responsible for managing the distributed ledger. The best CBDCs will converge the best of both worlds—the programability and security of cryptocurrencies and the reserve-backed stability of fiat currency.
- Several countries are already testing this concept.

14. Eastern Rajasthan Canal Project (ERCP)

Why in News?

- Recently, the Chief Minister of Rajasthan has demanded the national project status for the Eastern Rajasthan Canal Project (ERCP).

Highlights:

- The main advantage of a project which has Received national project status is that 90% of the funding for the project will be given by the Central Government.
- The estimated cost of the ERCP is around Rs. 40,000 crore.
- It aims to harvest surplus water available during rainy season in rivers in Southern Rajasthan such as Chambal and its tributaries, including Kunnu, Parvati, Kalisindh, and use this water in south-eastern districts of the state, where there is scarcity of water for drinking and irrigation. ERCP is planned to meet drinking and industrial water needs of the southern and south eastern Rajasthan, for humans and Livestock till the year 2051.

- It proposes to provide drinking water to 13 districts of Rajasthan and provide irrigation water for 2.8 lakh hectares of land through 26 different large and medium projects.
- **13 Districts:** Jhalawar, Baran, Kota, Bundi, Sawai Madhopur, Ajmer, Tonk, Jaipur, Karauli, Alwar, Bharatpur, Dausa and Dholpur.

Advantages:

- A significant area of land will get irrigation facilities. It intends to improve the ground water table in the rural areas of the state.
- It is positively influencing the socio-economic conditions of the people.
- It adds special emphasis on the Delhi Mumbai Industrial Corridor (DMIC) and envisages that sustainable water sources will enhance and help industries grow in these areas.
- It Results in investment and revenue.

About Chambal River:

- It is one of the most pollution-free rivers of India. It originates at the Singar Chouri peak in the northern slopes of the Vindhya mountains (Indore, Madhya Pradesh).
- It flows in the North direction in Madhya Pradesh for a length of about 346 km and then follows a north-easterly direction for a length of 225 km through Rajasthan.
- It is a rainfed river and its basin is bounded by the Vindhyan mountain ranges and the Aravallis. The Chambal and its tributaries drain the Malwa region of northwestern Madhya Pradesh.
- The Hadauti plateau in Rajasthan occurs in the upper catchment of the Chambal River to the southeast of the Mewar Plains.
- Tributaries: Banas, Kali Sindh, Sipra, Parbati, etc.

15. Market Infrastructure Institutions (MIIs)

Why in News?

- Recently, the Securities & Exchange Board of India (SEBI) has asked Market Infrastructure Institutions (MIIs) to begin operations from disaster recovery sites within 45 minutes of a disruption to critical systems, including trading.

Highlights:

- The SEBI has come out with a new framework for Business Continuity Plan (BCP) and Disaster Recovery (DR) of Market Infrastructure Institutions (MIIs) - stock exchanges, clearing corporations and depositories.

- The Business Continuity (BC) and Disaster Recovery (DR) are closely related practices that support an organization's ability to remain operational after an adverse event.
- In the event of disruption of any one or more of the 'critical systems', the MII would, within 30 minutes of the incident, declare that incident as 'disaster'.
- Its Critical systems,
 - ✓ for an exchange or clearing corporation would include trading, risk management, collateral management, clearing and settlement and index computation.
 - ✓ for a depository shall include systems supporting settlement process and inter-depository transfer systems.
- MIIs have been directed to move to disaster recovery sites within 45 minutes of declaring an incident a 'disaster'. A disaster recovery site is a place that a company can temporarily relocate to following a security breach or natural disaster.
- It ensures that a company can continue operations until it becomes safe to resume work at its usual location or a new Permanent Location. Mobile- and cloud-based disaster recovery sites are becoming increasingly popular.
- The new guidelines should be implemented within 90 days.

About Market Infrastructure Institutions (MIIs):

- Stock exchanges, depositories and clearing corporations are collectively referred to as securities Market Infrastructure Institutions (MIIs).
- According to the Bimal Jalan Committee (2010), these institutions are systemically important for the country's financial development and serve as the infrastructure necessary for the Securities Market. The stock exchange in India serves as a market where financial instruments like stocks, bonds and Commodities are traded.

16. Business Responsibility and Sustainability Report (BRSR)

Why in News?

- Recently, the Securities and Exchange Board of India (SEBI) has decided to introduce new requirements for Business Sustainability reporting by Listed Entities.

Highlights:

- This new report will be called the Business Responsibility and Sustainability Report (BRSR) and will replace the existing Business Responsibility Report (BRR).
- It is from an Environmental, Social and Governance ("ESG") perspective, is intended to enable businesses to engage more meaningfully with their Stakeholders.

- It will encourage businesses to go beyond regulatory financial compliance and report on their Social and Environmental Impacts.
- It will be applicable to the top 1000 listed entities (by market capitalization), for reporting on a voluntary basis for FY 2021 – 22 and on a mandatory basis from FY 2022 – 23.
- It is the disclosure and communication of environmental, social, and governance (ESG) goals—as well as a company’s progress towards them.
- The benefits of sustainability reporting include improved corporate reputation, building consumer confidence, increased innovation, and even improvement of risk management.
- Environmental, social, and governance (ESG) goals are a set of standards for a company’s operations that force companies to follow better governance, ethical practices, environment-friendly measures and social responsibility.
- Environmental criteria consider how a company performs as a steward of nature.
- Social criteria examine how it manages relationships with employees, suppliers, customers, and the communities where it operates.
- Governance deals with a company’s leadership, executive pay, audits, internal controls, and shareholder rights.

2.1. ENVIRONMENT SNIPPETS

1. Chilika Lake

Why in News?

- Recently, Migratory birds in and around Chilika lake and Bhitarkanika National Park have started leaving earlier (in February) than other years, as temperatures in Odisha (in and around Chillka lake) began to soar.

Highlights:

- Every year in winter, migratory birds arrive at the water bodies around Chilika Lake, Asia’s largest salt-water lagoon and Bhitarkanika, the second-largest mangrove forest in India (the largest being the Sunderbans, West Bengal).
- They Flew in from places as far off as Siberia, Afghanistan, Iran, Iraq, the Himalayan region and central Europe.
- **Warming of the Region:** The average temperature of Bhubaneswar (located 35 kilometers from Chilika) recorded for the month of February was 34-35 degrees Celsius between 2015 and 2019.

- **Decreasing Water Levels:** Rising temperature coupled with the decreasing water levels in the lake also contributed to this early migration.

About Chilika Lake:

- It is Asia's largest and world's second largest lagoon.
- It is the largest wintering ground for migratory birds on the Indian sub-continent and is home to a number of threatened species of plants and animals.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satpada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.
- Kalijai Temple - Located on an island in the Chilika Lake.

About Bhitarkanika National Park:

- It is one of Odisha's finest biodiversity hotspots and is famous for its mangroves, migratory birds, turtles, estuarine crocodiles, and countless creeks.
- It is represented by 3 Protected Areas, the Bhitarkanika National Park, the Bhitarkanika Wildlife Sanctuary and the Gahirmatha Marine Sanctuary.
- It is located in the estuary of Brahmani, Baitarani, Dhamra, and Mahanadi river systems.
- It is said to house 70% of the country's estuarine or saltwater crocodiles, conservation of which was started way back in 1975.

2. Species in News: Caracal

Why in News?

- The National Board for Wildlife (NBWL) and MoEFCC last month included the caracal, a medium-sized wildcat found in parts of Rajasthan and Gujarat, in the list of critically endangered species under the Species Recovery Programme.

Caracal in India:

- **IUCN Status:** Least Concerned
- The wildcat has long legs, a short face, long canine teeth, and distinctive ears — long and pointy, with tufts of black hair at their tips.



- The iconic ears are what give the animal its name — caracal comes from the Turkish *karakulak*, meaning ‘black ears’.
- In India, it is called *siya gosh*, a Persian name that translates as ‘black Ear’.
- A Sanskrit fable exists about a small wild cat named *deergha-karn* or ‘long-eared’.
- While it flourishes in parts of Africa, its numbers in Asia are declining.

In History and Myth:

- The earliest evidence of the caracal in the subcontinent comes from a fossil dating back to the civilization of the Indus Valley c. 3000-2000 BC.
- The caracal has traditionally been valued for its litheness and extraordinary ability to catch birds in flight; it was a favourite coursing or hunting animal in medieval India.
- Firuz Shah Tughlaq (1351-88) had *siyah-goshdar khana*, stables that housed large numbers of coursing caracal. It finds mention in Abul Fazl’s *Akbarnama*, like a hunting animal in the time of Akbar (1556-1605).
- Descriptions and illustrations of the caracal can be found in medieval texts such as the *Anvar-i-Suhayli*, *Tutinama*, *Khamsa-e-Nizami*, and *Shahnameh*.
- The East India Company’s Robert Clive is said to have been presented with a caracal after he defeated Siraj-ud-daullah in the Battle of Plassey (1757).

3. Himalayan Serow

Why in News?

- A Himalayan mammal, somewhere between a goat and an antelope, has been confirmed as the newest creature to be spotted in Manas Tiger Reserve, Assam.

About:

- Himalayan serow resembles a cross between a goat, a donkey, a cow, and a pig.
- It’s a medium-sized herbivores mammal with a large head, thick neck, short limbs, long, mule-like ears, and a coat of dark hair.
- There are several species of serows, and all of them are found in Asia.
 - ✓ The Himalayan serow, or *Capricornis sumatraensis* thar, is restricted to the Himalayan region. Taxonomically, it is a subspecies of the mainland serow (*Capricornis sumatraensis*).
- They are typically found at altitudes between 2,000 metres and 4,000 metres. They are known to be found in eastern, central, and western Himalayas, but not in the Trans Himalayan region.

✓ The Trans-Himalayas Mountain Region or Tibet Himalayan Region is located to the north of the Great Himalayas which consists of Karakoram, Ladakh, Zaskar and Kailash mountain ranges.

• **Conservation Status:**

- ✓ IUCN Red List: Vulnerable
- ✓ CITES: Appendix I
- ✓ The Wildlife Protection Act, 1972: Schedule I

4. Aravalli Hills

Why in News?

- The Haryana government has recently appealed to the Supreme Court to permit it to resume mining in the Aravalli Hills on the grounds that the pandemic had grounded the State's economy to a halt.

Highlights:

- The Aravallis act as a barrier between the fertile plains in the east and the sandy desert in the west.
- During monsoons, it provides a barrier and monsoon clouds move eastwards towards Shimla and Nainital, thus helping nurture the sub-Himalayan rivers and feeding the north Indian plains.
- In the winter months, it protects the fertile alluvial river valleys from the cold westerly winds from Central Asia.
- Aravallis also functions as a groundwater recharge zone for the regions around that absorb rainwater and revive the groundwater level.
- This range is considered the “lungs” for the polluted air of Delhi–National Capital Region (NCR). For Haryana, having the lowest forest cover at around 3.59% of the total forest cover in India, the Aravalli range is the only saving grace, providing the major portion of its forest cover (2017 Report).
- The Aravalli hills are an ecologically sensitive zone but have for years borne the brunt of quarrying and environmental degradation.
- A 2018 report by a Supreme Court-appointed Central Empowered Committee (CEC) found out that 25% of the Aravalli range has been lost due to illegal mining in Rajasthan since 1967-68.



- The consequences of the mining has been a destruction of aquifers and deforestation. Many rivers originating in the Aravalli like Banas, Luni, Sahibi and Sakhi, are now dead.
- Mining in the Aravalli region has been banned since 2002 under the Supreme Court orders, unless expressly permitted by the Union Environment Ministry. However, mining continues illegally.
- The green wall is being planned from Porbandar to Panipat which will help in restoring degraded land through afforestation along the Aravali hill range.
- Residents along with volunteers from iamgurgaon, a citizen action group involved in the conservation of the Aravallis, were assisted by ecologists to create a self-sustaining Aravalli. This society driven model could be more effective to combat the degradation.
- About Aravalli Range:
- They stretch for a distance of about 720 km from Himmatnagar in Gujarat to Delhi, spanning Haryana, Rajasthan, Gujarat, and Delhi.
- The Aravallis of Northwestern India, one of the oldest fold mountains of the world, now form residual mountains with an elevation of 300m to 900m.
- Guru Shikhar Peak on Mount Abu is the highest peak in the Aravalli Range (1,722 m).

5. Similipal Biosphere Reserve

Why in News?

- A massive fire has threatened to cause colossal damage to Similipal Biosphere — one of the largest biospheres of India — prompting the Odisha government to deploy a big contingent of field level staff to douse it.

About:

- Similipal National Park is national park and a tiger reserve in Mayurbhanj district of Odisha.
- It is part of Similipal-Kuldiha-Hadgarh Elephant Reserve popularly known as Mayurbhanj Elephant Reserve.
- Similipal National Park derives its name from the abundance of semul (red silk cotton trees) that bloom here.
- It was the **Second Largest National Park** in India.
- Its reserve is part of UNESCO World Network of Biosphere Reserves since 2009.
- The park has protected area of 845.70 square kilometres and has some beautiful waterfalls like Joranda and Barehipani.

- It is home to 99 royal Bengal tigers and 432 wild elephants.
- Besides it is famous for gaurs (Indian bison), chausingha as well as an orchidarium. Similipal National Park is national park and a tiger reserve in Mayurbhanj district of Odisha.
- It is part of Similipal-Kuldiha-Hadgarh Elephant Reserve popularly known as Mayurbhanj Elephant Reserve.
- Similipal National Park derives its name from the abundance of semul (red silk cotton trees) that bloom here.
- It was the second largest national park in India.
- Its reserve is part of UNESCO World Network of Biosphere Reserves since 2009.



6. Black-Browed Babbler Rediscovered

Why in News?

- A Black-Browed Babbler (*Malacocincla perspicillata*) was recently Rediscovered in south-eastern Kalimantan, the part of Borneo that is administered by Indonesia.

Highlights:

- It has a strong bill, chocolate colouring and distinctive black eye-stripe, its iris is of striking maroon colour.
- It has brown wings and a black stripe across its brow.
- The discoveries like this give hope that it's possible to find other species that have been lost to science for decades or longer.
- More than 150 species of birds around the world are considered "lost" with no confirmed sightings in the past decade. Its Protection Status is IUCN Red List Data Deficient

7. Asola Bhatti Wildlife Sanctuary

Why in News?

- Recently, the Supreme Court-mandated Ridge Management Board has decided to constitute an expert committee to look into the proposal of dumping inert (non-reactive) waste in the mines of Asola Bhatti Wildlife Sanctuary (Delhi).

Highlights:

- Inert waste is waste which is neither biologically nor chemically reactive and is waste which will not decompose or decompose very slowly.
- Inert waste includes, but is not limited to: construction and demolition material such as metal, wood, bricks, masonry and cement concrete; asphalt concrete; metal; tree branches; bottom ash from coal fired boilers; and waste coal fines from air pollution control equipment. These wastes usually don't pose a threat to the environment, or the health of animals or other people and will not endanger the quality of watercourses.
- However, when there is a large amount of this type of waste, it can become an issue as it begins to take up a lot of space.

Asola Bhatti Wildlife Sanctuary:

- It covers 32.71 sq km area lies on the Southern Delhi Ridge of Aravalli hill range, one of the oldest mountain systems of the world, on Delhi-Haryana border.
- An area of 1km around the Asola Bhatti Wildlife Sanctuary in Gurugram and Faridabad is an Eco-sensitive zone.
- Activities such as Commercial Mining, Setting up of Industries, and Establishment of major hydro-electric Projects are Prohibited.
- The Asola wildlife sanctuary has both floral and faunal diversity in form of Wide variety of trees, Shrubs, herbs and grasses. Large numbers of mammals, reptiles, amphibians, Butterflies and Dragonflies.
- Sanctuary comprises around 200 species of resident and migratory birds. Wildlife habitats inside the sanctuary act as a water recharge zone for Delhi, Faridabad and Gurugram.

About Ridge Management Board:

- The Supreme Court mandated the Delhi Government to constitute a Ridge Management Board for protection of the Delhi Ridge through their orders in the M.C. Mehta case 1987.
- The Delhi Ridge is the northern extension of the Aravalli Range covering a distance of about 35km.

- The Delhi Ridge acts as the green lungs of the capital and, through various government orders over the years, all construction has been banned in the Ridge in an effort to preserve it. The Chairman of the board is Chief Secretary of Delhi and Head of the Forest Department of Delhi Government is its Member Secretary.
- The Board also has members from the Non-governmental Organizations (NGOs).

8. Pench Tiger Reserve (PTR)

Why in News?

- A Female Cub of Tigress Avni has recently been released into the wild in the Pench Tiger Reserve (PTR) of Maharashtra.

Highlights:

- It is located in Nagpur District of Maharashtra and named after the pristine Pench River.
- The Pench river flows right through the middle of the park.
- It descends from north to south, thereby dividing the reserve into equal eastern and western parts. PTR is the joint pride of both Madhya Pradesh and Maharashtra.
- The Reserve is located in the southern reaches of the Satpura hills in the Seoni and Chhindwara districts in Madhya Pradesh, and continues in Nagpur district in Maharashtra as a separate Sanctuary. It was declared a National Park by the Government of Maharashtra in 1975 and the identity of a tiger reserve was granted to it in the year 1998-1999.
- However, PTR Madhya Pradesh was granted the same status in 1992-1993. It is one of the major Protected Areas of Satpura-Maikal ranges of the Central Highlands.
- It is among the sites notified as Important Bird Areas (IBA) of India.
- The IBA is a programme of Birdlife International which aims to identify, monitor and protect a global network of IBAs for conservation of the world's birds and associated diversity.

Flora:

- The green cover is thickly spread throughout the reserve.
- A mixture of Southern dry broadleaf teak forests and tropical mixed deciduous forests is present. Shrubs, climbers and trees are also frequently present. Some of them are unique varieties and possess medicinal as well as healing properties.
- Bamboo plantations are also present nearby the water banks.
- Fauna found here are sloth bear, jackal, nilgai, wild dog, peafowl, magpie robin, pintail, drongo, unia, myna etc.

9. Whale Shark

Why in News?

- Recently, fishermen in Odisha have rescued a whale shark.

Highlights:

- They are the largest shark, and indeed largest of any fishes alive today and they travel large distances to find enough food to sustain their huge size, and to reproduce.
- It is a 'filter feeder shark' which means it does not eat meat like other sharks. Whale sharks filter sea water and feed on tiny planktons.
- The maximum size of whale sharks is not known, but could be as large as 20m.
- Its Scientific Name is Rhincodon typus.
- It is found in all the tropical oceans of the world.
- Threats are Oil & gas drilling, shipping lanes etc.
- The Protection Status are IUCN Red List: Endangered, CITES: Appendix II, Indian Wildlife Protection Act, 1972: Schedule I



10. Seabuckthorn Plantation

Why in News?

- Recently, the Himachal Pradesh government has decided to start planting seabuckthorn in the cold desert areas of the state.

About Seabuckthorn:

- It's a shrub which produces an orange-yellow Coloured Edible Berry.
- In India, it is found above the tree line in the Himalayan region, generally in dry areas such as the cold deserts of Ladakh and Spiti.
- In Himachal Pradesh, it is locally called chharma and grows in the wild in Lahaul and Spiti and parts of Kinnaur.
- A major part is covered by this plant in Himachal Pradesh, Ladakh, Uttarakhand, Sikkim and Arunachal Pradesh.
- The Seabuckthorn Plantation has many Ecological, Medicinal and Economical benefits.

Significance:

- Seabuckthorn is a soil-binding plant which prevents soil-erosion, checks siltation in rivers and helps preserve floral biodiversity.

- In the Lahaul valley, where willow trees are dying in large numbers due to pest attack, this hardy shrub is a good alternative for protecting the local ecology.
- Grows well in dry regions and becomes much more important especially in the light of reduced water flow from Himalayan glaciers.
- As a folk medicine, seabuckthorn has been widely used for treating stomach, heart and Skin Problems. Its fruit and leaves are rich in vitamins, carotenoids and omega fatty acids and it can help troops in acclimatising to high-altitude.
- In the last few decades, scientific research worldwide has backed many of its traditional Uses. Seabuckthorn also has commercial value, as it is used in making juices, jams, nutritional capsules etc.
- It is an important source of fuelwood and fodder.
- However, wild Seabuckthorn cannot sustainably supply raw material to the industry, and the plant needs to be cultivated on a large scale as is being done in China.

11. Project RE-HAB

Why in News?

- Recently, a pilot project RE-HAB (Reducing Elephant-Human Attacks using Bees) has been launched in Karnataka which entails installing bee boxes along the periphery of the forest and the villages to mitigate human-elephant conflict.

Highlights:

- It is intended to create “bee fences” to thwart elephant attacks in human habitations using honeybees. The bee boxes will dissuade elephants without causing any harm to them.
- It is Extremely cost-effective as compared to various other measures such as digging trenches or erecting fences. The initiative will increase honey production and Farmers’ Income. The Project is an initiative of the Khadi and Village Industries Commission (KVIC).
- It is a sub-mission of KVIC’s National Honey Mission.

Honey Mission:

- The KVIC has launched the Honey Mission to provide awareness, training and ‘Bee Boxes’ along with Bee Colonies to the farmers.
- The mission was launched in August 2017 in line with the ‘Sweet Revolution’.
- The 'Sweet Revolution' was launched in 2016 to promote beekeeping and associated activities.

Nagarhole National Park:

- It is also known as Rajiv Gandhi National Park. It was established as a wildlife sanctuary in 1955 and was upgraded into a national park in 1988. It was declared as the 37th Tiger reserve under Project Tiger in 1999. There are 51 Tiger reserves in India. The latest addition in this list is Srivilliputhur Meghamalai Tiger Reserve of Tamil Nadu, which got approval in 2021.
- The Park lies in the Western Ghats and is a part of the Nilgiri Biosphere Reserve.
- The Nagarahole River flows through the park, which joins the Kabini River which also is a boundary between Nagarahole and Bandipur National Park.
- The vegetation consists mainly of moist deciduous forests with predominating trees of teak and rosewood.
- Asian elephants, chital (spotted deer), Indian mouse deer, gaur, stripe-necked and ruddy mongooses, grey langur, bonnet macaque, Asian wild dog, leopard, tiger, sloth bear among Others.

12. Ranthambore Tiger Sanctuary

Why in News?

- Recently, Six tigers are missing in Ranthambore Tiger Sanctuary (Rajasthan).

Highlights:

- It lies in the eastern part of Rajasthan state in Karauli and Sawai Madhopur districts, at the junction of the Aravali and Vindhya hill ranges.
- It comprises the Ranthambore National Park as well as Sawai Mansingh and Kailadevi Sanctuaries.
- The Ranthambore fort, from which the forests derive their name, is said to have a rich history of over 1000 years. It is strategically located atop a 700 feet tall hill within the park and is believed to have been built in 944 AD by a Chauhan ruler.
- This isolated area with tigers in it represents the north-western limit of the Bengal tiger's distribution range and is an outstanding example of Project Tiger's efforts for conservation in the country.
- India has 2,967 tigers, a third more than in 2014, according to results of a census made public in July 2020. Ranthambore, according to this exercise, had 55 tigers.
- The reserve consists of highly fragmented forest patches, ravines, river streams and agricultural land.

- It is connected to Kuno-Palpur Landscape in Madhya Pradesh, through parts of Kailadevi Wildlife Sanctuary, the ravine habitats of Chambal and the forest patches of Sheopur.
- Tributaries of River Chambal provide easy passage for tigers to move towards the Kuno National Park.
- The vegetation includes grasslands on plateaus and dense forests along the seasonal streams.
- The forest type is mainly tropical dry deciduous with 'dhak' (*Butea monosperma*), a species of tree capable of withstanding long periods of drought, being the commonest.
- This tree is also called as 'Flame of forest' and is one of the many flowering plants that add colour to the dry summers here. Other animals found here are leopards, striped hyenas, common or Hanuman Langurs, rhesus macaques, jackals, jungle cats, caracals, blackbuck, Blacknaped hare and chinkara, etc. The park is rich in Birds with about 272 species recorded so far.

13. One-Horned Rhino

Why in News?

- Recently, the claims by different political parties over significant reduction in poaching of Greater One-Horned Rhino has become an issue in Assam Assembly Elections.

Highlights:

- The Greater One-Horned Rhino is one among the five different species of Rhino. The other **Four are:**
- The Black Rhino, which is smaller of the two African species.
- Recently, researchers have created an embryo of the northern white rhino by using In vitro Fertilization (IVF) process.
- The Javan Rhino is under Critically endangered in IUCN Red List.
- The Sumatran Rhino has recently gone extinct in Malaysia.
- There are three species of rhino in Asia—Greater one-horned (*Rhinoceros unicornis*), Javan and Sumatran. Only the Great One-Horned Rhino is found in India. Also known as Indian rhino, it is the largest of the rhino species. It is identified by a single black horn and a grey-brown hide with skin folds.
- They primarily graze, with a diet consisting almost entirely of grasses as well as leaves, branches of shrubs and trees, fruit, and aquatic plants.

- The species is restricted to small habitats in Indo-Nepal terai and northern West Bengal and Assam. In India, rhinos are mainly found in Assam, West Bengal and Uttar Pradesh.
- Assam has an estimated 2,640 rhinos in four protected areas, i.e. Pabitora Wildlife Reserve, Rajiv Gandhi Orang National Park, Kaziranga National Park, and Manas National Park. About 2,400 of them are in the Kaziranga National Park and Tiger Reserve (KNPTR)
- Its protection Status are IUCN Red List: Vulnerable; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I (Threatened with extinction and CITES prohibits international trade in specimens of these species except when the purpose of the import is not commercial, for instance for scientific research); Wildlife Protection Act, 1972: Schedule I.

14. Sundarbans

Why in News?

- Recently, Sundarbans region was badly damaged by Cyclone Amphan in 2020.

Highlights:

- It is a vast contiguous mangrove forest ecosystem in the coastal region of Bay of Bengal spread over India and Bangladesh on the delta (world's largest) of the Ganges, Brahmaputra and Meghna Rivers.
- It contains the world's Largest Mangrove Forests.
- Much of the area has long had the status of a forest reserve, but conservation efforts in India were stepped up with the creation of the Sundarbans Tiger Reserve in 1973.
- Sundarbans National Park, established in 1984, constitutes a core region within the tiger reserve; it was designated a UNESCO World Heritage site in 1987.
- Sundarbans was designated as a Biosphere Reserve by UNESCO in 2001.
- Sundarban Wetland, India was recognised as the 'Wetland of International Importance' under the Ramsar Convention in January 2019.
- Sundarban National Park is known for its wide range of fauna, including 260 bird species and is home to many rare and globally threatened wildlife species such as the Estuarine Crocodile, Royal Bengal Tiger, Water Monitor Lizard, Gangetic Dolphin and Olive Ridley Turtles.
- The Sundarbans Delta is the only mangrove forest in the world inhabited by tigers.
- For its preservation, Discovery India and World Wide Fund (WWF) India partnered with the Government of West Bengal and local communities in the Sundarbans in 2019.

3. POLITY & GOVERNANCE

1. Karnataka to move SC against T.N. project

Why in News?

- Karnataka is readying itself to wage a legal battle in the Supreme Court against Tamil Nadu's ambitious Cauvery-Vellaru-Vaigai-Gundar river linking project.

What's the Issue?

- Tamil Nadu is trying to utilize surplus 45 Tmcft of water.
- The 262 km river-linking project will divert 6,300 cubic feet of surplus water during floods and increase the groundwater levels in the state's southern districts to meet drinking water needs.
- Karnataka Government says, "this project is not in accordance with the Interstate River Water Disputes Act.
- According to the Act, surplus water should also be adjudicated and the tribunal has to decide on it.

About Inter-State River Water Disputes Act, 1956:

- According to its provisions, if a State Government makes a request regarding any water dispute and the Central Government is of opinion that the water dispute cannot be settled by negotiations, then a Water Disputes Tribunal is constituted for the adjudication of the water dispute.
- The act was amended in 2002, to include the major recommendations of the Sarkaria Commission.
- The amendments mandated a one-year time frame to setup the water disputes tribunal and also a 3-year time Frame to give a Decision.

Provisions Related to Interstate River Water Disputes:

- Entry 17 of State List deals with water i.e., water supply, irrigation, canal, drainage, embankments, water storage and Water Power. Entry 56 of Union List empowers the Union Government for the regulation and development of inter-state rivers and river valleys to the extent declared by Parliament to be expedient in the public interest.
- **Article 262:** In the case of disputes relating to waters, it provides
 - ✓ **Clause 1:** Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution or control of the waters of, or in, any inter-State river or river valley.

- ✓ **Clause 2:** Parliament may, by law provide that neither the Supreme Court nor any other court shall exercise jurisdiction in respect of any such dispute or complaint as mentioned above.

About Cauvery River:

- Cauvery is a sacred river of southern India. It rises in the Brahmagiri range of the Western Ghats and falls in the Bay of Bengal south of Cuddalore, in Tamil Nadu.
- It forms the sacred islands of Srirangapatna and Shivanasamudra and Shivanasamudra falls and also a wide delta.
- Total Length of the river is about 760 km.
- Its main tributaries are Amravati, Bhavani, Hemavati, Kabini, Shimsha, and Lakshmana Tirtha.
- Its basin drains parts of Karnataka, Kerala and Tamil Nadu.



2. No Postal Ballots for NRIs this time

Why in News?

- The Election Commission has said that postal ballots facility would not be extended to NRIs for the upcoming elections to the Assam, Tamil Nadu, Puducherry, Kerala and West Bengal Assemblies.

About the News:

- The Election Commission of India (ECI) had written to the Law Ministry on November 27, 2020 with the proposal of extending postal ballots to overseas electors.
- EC's note was further referred to the Ministry of External Affairs. The MEA was of the opinion that a wider meeting of stakeholders should be held.

Who is Non-Resident Indian?

- According to India's Foreign Exchange Management Act 1999 (FEMA), NRI is an Indian citizen or Foreign National of Indian Origin residing outside India for purposes of employment, carrying on business or vocation in circumstances as would indicate an intention to stay outside India for an indefinite period.
- Visiting NRIs whose total income (which is defined as taxable income) in India is up to Rs. 15 lakhs during the financial year will continue to remain NRIs if the stay does not exceed 181 days. The Union Budget 2020 proposed to reduce this period to 120 days for all NRIs.

Does constitutional Amendments Needed?

- To extend the voting facility to overseas voters, Government needs to only amend the Conduct of Election Rules 1961, and doesn't require Parliament's nod.

What is the Current Process of voting for Indian Citizens Living Abroad?

- Voting rights for NRIs were introduced only in 2011, through an amendment to the Representation of the People Act 1950.
- An NRI can vote in the constituency in which her place of residence, as mentioned in the passport, is located.
- She can only vote in person and will have to produce her passport in original at the polling station for Establishing Identity.

What is Current Strength of NRI Voters?

- According to a UN report of 2015, India's diaspora population is the largest in the world at 16 million people. However, registration of NRI voters has been very low with a little over one lakh overseas Indians registered as voters in India.
- In the 2019 Lok Sabha Elections, Roughly 25,000 of them flew to India to vote.

Process of Voting by Postal Ballots:

- Any NRI interested in voting through the postal ballot will have to inform the Returning Officer (RO) not later than five days after the notification of the election.
 - ✓ The RO of a parliamentary or assembly constituency is responsible for the conduct of Elections in the Parliamentary or Assembly Constituency.
- On receiving such information, the RO will dispatch the ballot paper electronically.
- The NRI voters will download the ballot paper, mark their preference on the printout and send it back along with a declaration attested by an officer appointed by the diplomatic or consular representative of India in the country where the NRI is resident.

- The postal ballot should reach the returning officer by 8 AM on the day of the counting. Counting of votes begin with counting of postal ballots at 8 AM.
- However, it is not clear right now, if the voter will return the ballot paper herself through ordinary post or drop it off at the Indian Embassy, which may then segregate the envelopes constituency-wise and send them to the Chief Electoral Officer of the state concerned for Forwarding to the RO.

3. Voicing Dissent Against Govt. not a Sedition, says SC

Why in News?

- The Supreme Court recently said that Voicing Dissent against the Government does not Amount to sedition.

About the News:

- The court said in its order that the expression of a view which is a dissent from a decision taken by the Central Government itself cannot be said to be seditious.
- The Court also rejected a plea to “terminate” the Lok Sabha membership of Dr. Farooq Abdullah and book him for sedition.

What is Sedition?

- Sedition, which falls under **Section 124A of the Indian Penal Code**, is defined as any action that brings or attempts to bring hatred or contempt towards the government of India and has been illegal in India since 1870.

What is Dissent?

- Dissent means “a strong difference of opinion on a particular subject, especially about an official suggestion or plan or a popular belief”. India’s constitutional democracy is predicated on the people’s right to call state power to account.
- Even at Household level also, there is no family without dissent between parents and the children, or between the siblings. A family which learns to deal with dissent rather than authoritatively dismissing it is a more harmonious family.

Kedarnath Singh vs State of Bihar:

- Section 124A has been challenged in various courts in specific cases. The validity of the provision itself was upheld by a Constitution Bench in 1962, in **Kedarnath Singh vs State of Bihar**.

- ✓ That Judgment went into the issue of whether the law on sedition is consistent with the Fundamental Right under **Article 19 (1) (a)** which Guarantees each citizen's **freedom of Speech and Expression**.
- ✓ The Supreme Court laid down that every citizen has a right to say or write about the government, by way of criticism or comment, as long as it does not "incite people to violence" against the government established by law or with the intention of creating Public Disorder.

What does the data shows?

- The National Crime Records Bureau (NCRB), though, has only been collecting separate data on sedition cases since 2014. In 2014, there were 47 cases of sedition but that number increased to 70 in 2018 (the latest year with available data).
- Compared to other offences, sedition remains a rare crime (it accounts for less than 0.01% of all IPC crimes).
- But within India, some parts are emerging as sedition hotspots. Assam and Jharkhand, for instance, with 37 sedition cases each, account for 32% of all sedition cases between 2014-2018.
- In 2018, there were 1,182 cases registered under **UAPA** (The Act gives special procedures to handle terrorist activities, among other things). And almost all these cases (92%) were concentrated in five states (Uttar Pradesh, Jammu and Kashmir, Assam, Jharkhand and Manipur).

Why Sedition Law is a Hindrance?

- Sedition leads to a sort of unauthorised self-censorship, for it produces a chilling effect on Free Speech. It suppresses what every citizen ought to do in a democracy — raise questions, debate, disagree and challenge the Government's decisions.
- Sedition systematically destroys the soul of Gandhi's philosophy that is, **right to dissent** which is the core Principle of Democracy.

Why Right to Dissent is essential?

- The Right to Dissent is an important addition of expressing one's view, and on many of its most important Constituent Elements.
- It will enable practitioners and citizens to claim their rights and participate more effectively in the Project of Democracy.
- Disagreeing with each other is a fundamental human trait. There is not a single individual who does not Disagree with something or the other all the Time.

- But gagging people through sedition cases strikes the people's right to dissent and freedom of Expression.

Ethical Concern of Dissent:

- The importance of dissent is not just that it is good for democracy. There is also a fundamental ethical principle involved in dissent
- Any society which allows dissent is acting ethically.
- The first ethical principle is related to non-violence, a principle which is so integral to the unique Indian practices of dissent from ancient times to Gandhi and Ambedkar.
- The second ethical principle is that the worse off in a society have a greater right to dissent and protest even when the more privileged may not agree or sympathize with that dissent.
- Social dissent is a necessary voice for all those who are oppressed and are marginalised for various reasons. This is the only thing they have in a world which has denied them the basic dignity of a Social Life.
- Buddha and Mahavira were dissenters first and philosophers next. Ramayana and Mahabharata are filled with stories of dissent.
- Dissent is not just about criticism; it is also about Showing New Perspectives.

4. Fuel Prices to Drop if Brought Under GST

Why in News?

- As per an SBI Research Report, Bringing Petrol and Diesel Under the GST regime could lead to a loss of as little as ₹1 lakh crore in annual revenue for the Centre and States while bringing pan-India prices of the fuels to ₹75 and ₹68 a litre, respectively.

Findings of the Report:

- Assuming a GST rate of 28%, cess of ₹30 and ₹20 for a litre of petrol and diesel respectively (shared equally between the Centre and the States), crude oil price of \$60 per barrel and a rupee-dollar exchange rate of 73, SBI Research has reckoned the Centre and States would, together, face a revenue deviation from Budget estimates of only ₹1 lakh crore, or 0.4% of the GDP, in FY22.
- The report has adjusted for a rise in consumption if the fuel prices are reduced and assumed a 10% growth in petrol and 15% rise in diesel consumption in 2021-22.
- **Lower Fiscal Deficit:** India's fiscal deficit in 2020-21 may turn out to be lower than the revised estimate of 9.5% of the GDP at about 8.7%, and the government might lower its borrowings which could help lower yields on its securities by the end of March.

- Tax receipts have been bolstered by indirect taxes, including excise duties, while the government has still about ₹5.90 lakh crore to be spent over the last two months of 2020-21, including ₹76,000 crore in capital expenditure, ₹1.73 lakh crore in interest payments and ₹3.43 lakh crore in subsidy payments.

What is Govt Explanation on Rise in Fuel Prices?

- The government reasons that global crude oil prices have risen by more than 50 per cent to over \$63.3 per barrel since October, forcing oil retailers to increase pump prices. That, however, is only partly true.
- Indian consumers are already paying much higher than what they were paying last January, even though Crude Prices are yet to reach levels of early last year.
- It is to be noted that Petrol and diesel do not come under the purview of goods and services tax (GST).

Fuel Price Dynamics in India:

- Retail petrol and diesel prices are in theory decontrolled — or linked to global crude oil prices.
- It means that if crude prices fall retail prices should come down too, and vice versa.
- But this does not Happen in Practice, Largely because oil price decontrol is a one-way street in India. When Global Crude oil prices fall and prices slide, the government slaps fresh taxes and levies to ensure that it rakes in Extra Revenues.
- The consumer should have ideally benefited by way of lower pump prices, is forced to either shell out what she's already paying or Spend even more for every litre of fuel.
- The main beneficiary in this subversion of price Decontrol is the Government.

Why crude Oil Prices are Rising Now?

- Prices collapsed in April 2020 after the pandemic spread around the world, and demand fell away.
- But as economies have reduced travel restrictions and factory output has picked up, global demand has improved, and prices have been recovering.
- The controlled production of crude amid rising demand has been another key factor in boosting oil prices, with Saudi Arabia voluntarily cutting its daily output.

What is the Impact of Taxes on Retail Prices of Auto Fuels?

- The central government hiked the central excise duty on petrol to Rs 32.98 per litre during the course of last year from Rs 19.98 per litre at the beginning of 2020.

It increased the excise duty on diesel to Rs 31.83 per litre from Rs 15.83 over the same period to boost revenues as economic activity fell due to the pandemic.

- A number of states have also hiked sales tax on petrol and diesel to shore up their revenues.

How Much Tax do We Pay Now?

- Currently, state and central taxes amount to around 180 per cent of the base price of petrol and 141 per cent of the base price of diesel in Delhi.

How will these Hikes Impact Inflation?

- Experts note that the impact of rising fuel inflation has been counterbalanced by declining food inflation, but that consumers with greater expenditure on travel are feeling the pinch of higher prices. Rising fuel inflation may Pinch Consumers who have to travel further for work and have access to affordable cereals etc.
- The urban population would be more impacted by rising fuel prices than the rural population – however, a weak monsoon may lead to rural India being hit as farmers are forced to rely more on diesel-Powered Irrigation.

5. SC Quashes Notifications of Maharashtra EC

Why in News?

- The top court Recently quashed the EC Notifications to the extent they provide for reservation of seats for OBCs Citing that it Exceeds the 50% limit.

What did the Court Observed?

- The Supreme Court ruled that reservation for other Backward Classes is only “statutory”, unlike the “constitutional” reservation for Scheduled Castes and Scheduled Tribes, and the extent of reservation given to the former in local bodies cannot be such that it will take the total reservation for SCs, STs and OBCs beyond the 50 per cent ceiling.
- In case, constitutional reservation provided for SCs and STs were to consume the entire 50 per cent of seats in the concerned local bodies and in some cases in scheduled area even beyond 50 per cent, in respect of such local bodies, the question of providing further reservation to OBCs would not arise at all.

About Other Backward Class (OBC) Reservation:

- The state (both Centre and the states) is empowered to make provision for the advancement of OBCs regarding their admission to educational institutions and Government Jobs.
- The quota limit for OBCs is 27%. However, various state governments have different quota limits for OBCs in their state. Eg: Tamil Nadu (50% reservation for OBCs).

◆ In the Indra Sawhney 1992 judgement, the Supreme Court fixed the upper limit for the combined reservation quota i.e. should not exceed 50% of seats.

Historical Background of OBC Reservation:

- **Establishing First Backward Class Commission:**
 - ✓ In January 1953, the JL Nehru government had set up the First Backward Class Commission under the chairmanship of social reformer Kaka Kalelkar.
 - ✓ The commission submitted its report in March 1955, listing 2,399 backward castes or communities, with 837 of them classified as ‘most backwards’. However, the report was Never Implemented.
- **Establishing Second Backward Class Commission:**
 - ✓ On January 1, 1979, the Morarji Desai government chose Bindeshwari Prasad Mandal, a former chief minister of Bihar, to head the Second Backward Class Commission.
 - ✓ Mandal submitted his report two years later, on December 31, 1980.
 - ✓ However, by then, the Morarji Desai government had fallen and Indira Gandhi came to power and the issue remained in the deep freeze for about a decade.
- **Implementation of Mandal Commission:**
 - ✓ In 1990, the then Prime Minister V P Singh announced in the Parliament that the recommendations of the Mandal Commission would be implemented.
 - ✓ The announcement witnessed violent protests all over India, especially in northern and western India, and many students immolated themselves in protest and a few of them died as well.
- **Indira Sawhney Case:**
 - ✓ Following the severe opposition the issue of OBC reservation reached the Supreme Court in 1992. This case is known as ‘Indira Sawhney Judgment’ or Mandal Case.
 - ✓ The Supreme Court upheld the 27% reservation for OBCs but also stated that the only caste was not an indicator of social and educational backwardness.
 - ✓ Also, to ensure that benefits of the recommendations of the Mandal Commission percolated down to the most backward communities, the creamy layer criteria was invoked.

What did the Court rule on Reservation in Local bodies?

- The court ruled that Section 12(2)(c) is an enabling provision and needs to be read down to mean that it may be invoked only upon complying with three conditions before notifying the seats as reserved for OBC category in the concerned local bodies.

◆ The Three Conditions Are: ◆

1. setting up of a dedicated Commission to conduct contemporaneous rigorous empirical inquiry into the nature and implications of the backwardness qua local bodies, within the State;
2. specifying the proportion of reservation required to be provisioned local body wise in light of Recommendations of the Commission;
3. in any case such reservation shall not exceed aggregate of 50 per cent of the total seats reserved in favour of SCs/STs/OBCs taken together.

6. Janaushadhi is Helping Poor, says PM

Why in News?

- Urging people to buy affordable medicines from Janaushadhi Kendras, Prime Minister Narendra Modi on Sunday inaugurated the 7500th Janaushadhi Kendra at NEIGRIHMS, Shillong, through videoconference as part of his address on ‘Janaushadhi Diwas’ celebrations.

Universal Health Coverage:

- The scheme will ensure Universal Health Coverage and focus on providing financial risk protection and ensuring quality and affordable essential health services to all individuals and communities.
- Universal Health Coverage (UHC) includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care.
- UHC enables everyone to access the services, protecting people from the financial consequences of paying for health services out of their own pockets and reducing the risk that people will be pushed to poverty.

What is Ayushman Bharat PMJAY Yojana?

- The PMJAY, world’s largest health insurance/assurance scheme fully financed by the government, provides a cover of Rs. 5,00,000 per family per year for secondary and tertiary care hospitalisation across public and private empanelled hospitals in India.
- Pre-hospitalisation and Post-hospitalisation expenses such as diagnostics and medicines are also included in the scheme.
- Coverage: Over 10.74 crore poor and vulnerable entitled families (approximately 50 crore beneficiaries) are eligible for these benefits.
- Provides cashless access to health care services for the beneficiary at the point of service.

What is its Significance?

- Helps reduce catastrophic expenditure for hospitalizations, which pushes 6 crore people into Poverty Each Year.
- Helps mitigate the Financial Risk Arising out of Catastrophic Health Episodes.

Eligibility Criteria's:

- No restrictions on family size, age or gender.
- All pre-existing conditions are covered from day one.
- Covers up to 3 days of pre-hospitalization and 15 days post-hospitalization expenses such as diagnostics and medicines.
- Benefits of the scheme are portable across the country.
- Services include approximately 1,393 procedures covering all the costs related to treatment, including but not limited to drugs, supplies, diagnostic services, physician's fees, room charges, surgeon charges, OT and ICU charges etc.
- Public hospitals are reimbursed for the healthcare services at par with the private hospitals.

Challenges and Concerns:

- Medical audits have also revealed that private hospitals are more likely to indulge in fraud and abuse than public hospitals and more likely to discharge patients early post-surgery to cut costs. Ensuring the accountability of private hospitals to provide efficient and high-quality care is a pre-eminent challenge for Scheme Implementation.
- There is huge State-wise variation in the share of empanelled private hospitals from less than 25% in most of the north-eastern and hill States to 80% in Maharashtra.
- Private Hospitals have fewer beds than public hospitals and are more likely to be Empanelled for Surgical Packages and Super-Specialties.

7. Compensate Those Acquitted Under UAPA, Say Activists

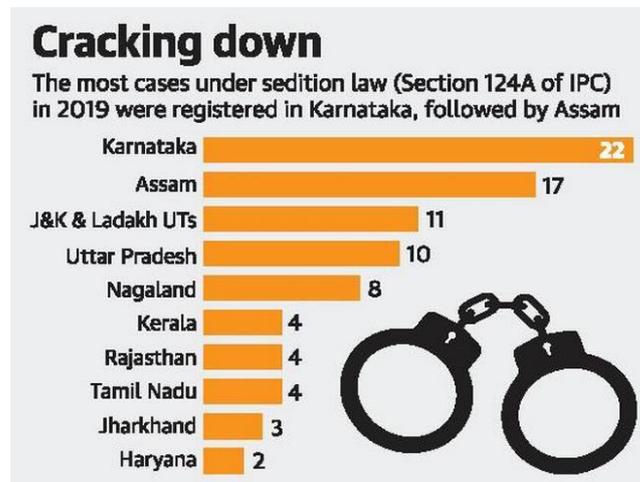
Why in News?

- A local court in Gujarat's Surat city recently acquitted 122 persons arrested under Unlawful Activities (Prevention) Act for participating in a meeting organised in December 2001 as members of the banned outfit Students' Islamic Movement of India (SIMI).

About the News:

- After their acquittal, some of the accused and also activists from the minority community demanded that they be compensated for being "illegally framed by the police" without any evidence against them.

“Many of them spent years in jail while facing trial. Five accused even died during this Lengthy Legal Proceeding.



About UAPA:

- UAPA passed in 1967 aims at effective prevention of unlawful activities associations in India.
- Unlawful activity refers to any action taken by an individual or association intended to disrupt the Territorial Integrity and Sovereignty of India.
- The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
- It has death penalty and life Imprisonment as Highest Punishments.
- Under UAPA, both Indian and foreign nationals can be charged. It will be applicable to the offenders in the same manner, even if crime is committed on a foreign land, outside India.
- Under the UAPA, the investigating agency can file a charge sheet in maximum 180 days after the arrests and the duration can be extended further after intimating the court.
- The 2004 amendment, added “terrorist act” to the list of offences to ban organisations for terrorist activities, under which 34 outfits were banned.
- Till 2004, “unlawful” activities referred to actions related to secession and cession of territory.
- In August 2019, Parliament cleared the Unlawful Activities (Prevention) Amendment Bill, 2019 to designate individuals as terrorists if the individual commits or participates in acts of terrorism, prepares for terrorism, promotes terrorism or is otherwise involved in terrorism.
- The Act Empowers the Director General of National Investigation Agency (NIA) to grant approval of seizure or attachment of property when the case is investigated by the said agency.

The Act also empowers the officers of the NIA, of the rank of Inspector or above, to investigate cases of terrorism in addition to those conducted by the DSP or ACP or above rank officer in the state.

Criticisms of UAPA:

- The law is often Misused and abused. It could be used against political opponents and civil society activists who speak against the government and brand them as “terrorists.”
- The 2019 amendment gives Unfettered Powers to Investigating Agencies.
- The law is against the federal structure; given that ‘Police’ is a state subject under 7th schedule of Indian Constitution.

What needs to be done?

- Anti-terror laws should not be used as tool to silence the critics of government.
- A committee may be set up to examine and supervise the process of designating individuals as terrorists and investigation of cases with objectivity and fairness.
- Arbitrariness under the law should be checked through Judicial Review.

8. SC asks States to clarify Reservation cap of 50%

Why in News?

- The Supreme Court recently decided to examine whether its nearly three-decade-old Judgment, which Fixed Reservation for the marginalized and the poor in government jobs and Educational Institutions at 50%, needs a re-look.

What is the Issue?

- In 1992, a nine-judge Bench of the court had drawn the margin for reservation in jobs and education at 50%, except in “Extraordinary Circumstances”.
- However, over the years, several States such as Maharashtra and Tamil Nadu have crossed the rubicon and passed laws which allows reservation shooting over 60%.
- A five-judge Bench was set up to hear the challenge to the Maratha quota law, decided not to confine the question of reservation spilling over 50% limit to just Maharashtra.
- The Bench expanded the ambit of the case by making other States party and inviting them to make their stand clear on the question of whether reservation should continue to remain within the 50% boundary or not.
- A significant question the Bench wants to judge is whether the Constitution (One Hundred-Second Amendment) Act of 2018, which introduces the National Commission for Backward

◆ ~~Classes (NCBC), interferes with the authority of State Legislatures to provide benefit to the social and educationally backward communities in their own jurisdiction.~~

What does the (One Hundred-Second Amendment) Act of 2018 say?

- The Constitution Amendment Act had introduced Articles 338B and 342A in the Constitution. Article 338B deals with the newly established the NCBC. Article 342A empowers the President to specify the socially and educationally backward communities in a State. It says that it is for the Parliament to include a community in the Central List for socially and backward classes for grant of reservation benefits.
- The court wants to delve into the issue whether Article 342A strips State Legislatures of their discretionary power to include their backward communities in the State List.

Existing Total Reservation in Maharashtra:

- Following the 2001 State Reservation Act, the total reservation was 52%.
- This included quotas for SCs (13%), STs (7%), OBCs (19%), Special Backward Class (2%), Vimukta Jati (3%), Nomadic Tribe B (2.5%), Nomadic Tribe C-Dhangar (3.5%) and Nomadic Tribe D-Vanjari (2%).
- The quotas for Nomadic Tribes and Special Backward Classes have been carved out of the total OBC quota. With the addition of 12-13% Maratha quota, the total reservation in the state is 64-65%. The 10% Economically Weaker Sections (EWS) quota is also effective in the state.

Reservation in Tamil Nadu:

- The Tamil Backward Classes, Scheduled Castes and Scheduled Tribes (Reservation of seats in Educational Institutions and of appointments or posts in the Services under the State) Act of 1993 is protected under the Ninth Schedule of the Constitution from judicial review.
- Section 4 of the Act provides 30% reservation to the Backward Classes, 20% for Most Backward Classes and de-notified communities, 18% for Scheduled Castes and 1% for Scheduled Tribes. Thus, a total of 69% reservation is provided.
- Tamil Nadu Reservation Act, 1993 provides 69% reservation in admissions and in public services, which is arbitrary, unreasonable and excessive. This excessive reservation seriously affects general category students and candidates to the public services.

What was Previous Ruling by Bombay High Court?

- In July 2019, it ruled that the 16% quota granted by the state was not 'justifiable' and reduced it to 12% in education and 13% in government jobs, as recommended by the 11-member Maharashtra State Backward Class Commission (MSBCC).

The limit of the reservation should not exceed 50% but in exceptional circumstances and extraordinary situations, this limit can be crossed subject to availability of quantifiable and contemporary data reflecting backwardness, the inadequacy of representation and without affecting the efficiency in administration.

- While the backwardness of the community was not comparable with Scheduled Castes (SCs) and Scheduled Tribes (STs), it was comparable with several other backward classes, which find a place in the list of Other Backward Classes (OBC) pursuant to the Mandal Commission.

Way Forward:

- However, reservation is just one of the methods for social upliftment. It is to be noted that reservation should not compromise the merit too. There are many other methods like providing scholarships, funds, coaching's, and other welfare schemes for the upliftment of the backward class people.

9. SC asks Centre Regarding the setup of Environment Regulator

Why in News?

- The Supreme Court recently asked the government to explain why it had not set up an “independent environment regulator” to oversee Green Clearances.

About the News:

- The lapse was highlighted by advocate Prashant Bhushan, who said the top court had ordered the setting up of a national environment regulatory body to ensure independent oversight of green clearances way back in July 2011 in Lafarge Umiam Mining Private Limited v. Union of India, commonly known as the ‘Lafarge mining case’.

What is Lafarge Mining Case?

- The court on February 5, 2010, restrained the Lafarge from carrying out limestone mining in Meghalaya for its cement plant, saying mining in the environmentally-sensitive zone could not be allowed. Subsequently the MoEF gave revised environmental clearance to the Lafarge in April last after finding the mining project fell in forest land.
- The Forest Bench later accepted the contentions of the Lafarge to mine in the forests of Meghalaya and that it had obtained necessary clearances.
- The Bench said “In the present case, we are satisfied that limestone mining has been going on for centuries in the area and that it is an activity which is intertwined with the culture and the unique land holding and tenure system of the Nongtraï Village.

◆ On the facts of this case, we are satisfied with due diligence exercise undertaken by the Ministry of Environment and Forests (MoEF) in the matter of forest diversion.

- Laying down guidelines for future, the Bench said: “We declare that the National Forest Policy, 1988 which lays down far-reaching principles must necessarily govern the grant of permissions under Section 2 of the Forest (Conservation) Act, 1980 as the same provides the road map to ecological protection and improvement under the Environment (Protection) Act, 1986.”

What was the Court's other orders?

- In 2011, the court had asked the Centre to appoint a national regulator for appraising projects, enforcing environmental conditions for approvals and to impose penalties on polluters.
- In that order, the court had explained the need for an independent regulatory mechanism, saying the “identification of an area as forest area is solely based on the declaration to be filed by the user agency [project proponent].”
- The project proponent under the existing dispensation is required to undertake EIA by an expert body/institution”.
- The court had made it clear that till such mechanism was put in place, the Environment Ministry (MoEF) “should prepare a panel of accredited institutions from which alone the project proponent should obtain the Rapid Environmental Impact Assessment (EIA) and, that too, on the Terms of Reference to be formulated by the MoEF”.

Forestry in India:

- According to India State of Forest Report, 2019, tree and forest cover together made up 24.56% (8,07,276 sq km) of India's area.
- In landmark 1996 Godavarman Case, the Supreme Court defined forests as all areas that are forests in the dictionary meaning of the term irrespective of the nature of ownership and classification thereof. The court also ordered all non-forest activity like sawmills and mining to be suspended in forest areas and stopped felling of trees in this order.

Constitutional Provisions:

- Forests and Protection of Wild Animals and Birds are included in the Concurrent List in the (Seventh Schedule) of the Constitution of India.
 - ✓ Through the 42nd Amendment Act, 1976 Forests and Protection of Wild Animals and Birds were transferred from State to Concurrent List along with Education, Weights & Measures and Administration of Justice.

- Article 51 A (g) of the Constitution states that it shall be the fundamental duty of every citizen to protect and improve the natural environment including forests and Wildlife.
- Article 48 A in the Directive Principles of State policy, mandates that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the Country.

10. Lok Sabha passes National Capital Territory Bill

Why in News?

- The Lok Sabha recently passed the National Capital Territory of Delhi Laws (Special Provisions) Second (Amendment) Bill, 2021 that seeks to regularise unauthorised colonies that existed in the National Capital Territory of Delhi as on June 1, 2014, and had seen development up to 50% as on January 1, 2015.

About the News:

- “In 1947, 17% of the total population of the country lived in urban areas, Delhi’s population at that time was eight lakhs. After partition and relocation, it went up to 22 lakhs, and during the Census of 2021, the population would be close to two crore people.
- A large number of people living in unauthorised colonies in Delhi were not receiving proper amenities and that this Bill provided ownership rights to those living in these colonies. It would facilitate access to institutional credit and also improve the basic amenities.
- The Bill was then passed by voice vote. The government had introduced the Bill and got it cleared in the Rajya Sabha in February, in the first part of the Budget session.

Key Provisions of the Bill:

- It repeals the National Capital Territory of Delhi Laws (Special Provisions) Second (Amendment) Ordinance, 2020 promulgated on December 30, 2020. The Bill amends the National Capital Territory of Delhi Laws (Special Provisions) Second Act, 2011.
- **The 2011 Act provides for:**
 - ✓ relocating slum dwellers and Jhuggi-Jhompri clusters in accordance with the provisions of the Delhi Shelter Improvement Board Act, 2010 and the Master Plan for Delhi, 2021,
 - ✓ regularising unauthorised colonies, village abadi areas (and their extensions),
 - ✓ creating a policy or plan for farm houses constructed beyond permissible building limits, and for all other areas of the National Capital Territory of Delhi, and
 - ✓ not taking any punitive action and minimising inconvenience to the people of Delhi in case of any demolition or sealing of structures under the Master Plan for Delhi which was

notified by the central government on February 7, 2007 that provides for strategies of housing for urban poor as well as for dealing with the informal sector.

- **Extension of validity:** The 2011 Act was valid till December 31, 2020. The Bill seeks to extend this deadline to December 31, 2023.

What is an Unauthorised Colony?

- An unauthorised colony is defined as a colony or development comprising of an adjoining area, where no permission has been obtained for the approval of layout or building plans. Further, the Delhi Development Authority must have had notified the colony for Regularisation. The residents will be required to pay certain charges to obtain such ownership. These Charges may be notified by the Central Government.

Regularisation of Unauthorised Colonies:

- The 2011 Act also provided for the regularisation of unauthorised colonies
 - ✓ which existed as on March 31, 2002, and
 - ✓ where construction took place till June 1, 2014.
- The Bill amends this to provide that unauthorised colonies will be identified for regularisation as per the National Capital Territory of Delhi (Recognition of Property Rights of Residents in Unauthorised Colonies) Act, 2019, and the National Capital Territory of Delhi (Recognition of Property Rights of Residents in Unauthorised Colonies) Regulations, 2019.

Who are Eligible?

- Thus, the Unauthorised Colonies:
 - ✓ Which existed as on June 1, 2014, and
 - ✓ Having 50% development as on January 1, 2015, will be eligible for regularisation.

Significance:

- The bill provides for a legal framework to grant ownership rights to nearly 40 lakh people living in unauthorised colonies in Delhi.
- The bill will allow registration of properties and provide certain relief to the residents of 1731 unauthorised colonies in the city from registration charges and Stamp Duty.

11. EC files FIR over 'fake news' on hacking of EVMs

Why in News?

- The Election Commission recently said an FIR had been lodged over “fake news” about hacking of Electronic Voting Machines (EVMs) being spread on social media.

What is an EVM?

- The Electronic Voting Machine, also known as EVM, is an electronic device used for casting votes. The EVM aims to make the electoral process secure, fair and transparent.
- The voting in India is done using electronic voting machines since 1999 to simplify the Voting Process and do away with Paper Ballots.

Can EVMs be Tampered with?

- The EVM is a tamper-proof machine. It is made of a one-time programmable chip, which cannot be connected to any external device or network such as the internet, Wi-Fi, USB or Bluetooth. Hence, it cannot be Corrupted or Modified in any Way Possible.

What is the Process of Allotment of EVMS to Polling Booths?

- The EVMS are allotted to the polling booths through an elaborated randomization process. This way, there is no prior knowledge on which unit will go to which polling booth almost until the polling date. The machines undergo mock polls at every stage to ensure that they are in the Right Working Condition.

How do the EVMS work?

- An EVM is designed with two units: the control unit and the balloting unit. These units are joined together by a cable. While the control unit of the EVM is kept with the presiding officer or the polling officer, the balloting unit is kept within the voting compartment for electors to cast their votes.
- This is done to ensure that the polling officer verifies your identity.

How to use an EVM?

- In order to enable the voter to cast their vote, the polling officer instead of issuing a ballot paper presses the Ballot Button.
- The balloting unit of the machine will have a list of candidate names and party symbols with a blue button next to it. The voter can press the button next to the candidate's name they wish to vote for.
- When the voter presses a button of his/ her choice, the machine locks itself and a printed VVPAT slip is displayed for 7 seconds before it's automatically cut and delivered to a sealed

◆ ~~ballot compartment. The votes are stored in the VVPAT or Voter Verifiable Paper Audit Trail machine.~~

- The EVM can then be opened only with a new ballot number. This way, EVMs ensure that one person gets to vote only once.

About VVPATs:

- VVPAT is a slip generated in a printer-like machine attached to EVM and shows voter's choice of candidate as well as the party. Generated slip is displayed for a few seconds to the voter to verify before it falls into a sealed drop box which can be opened during counting.
- **Advantages:** Initially, election results are announced based on the recording of votes given by EVMs. If the election results are disputed, then the votes recorded under VVPATs shall be counted and announced. If there is any mismatch between the two results, then the VVPAT's result will prevail over the EVMs.
- **Disadvantages:** However, VVPATs address only the issues at the voting part and the counting part still stays an opaque operation. Furthermore, currently, the EC's VVPAT auditing is limited to one randomly selected polling booth per constituency. But, this sample size will not detect faulty EVMs 98-99 percent of the time.
- VVPATs can be an effective deterrent to fraud, but, the detection of even one faulty EVM in a constituency is followed by the VVPAT auditing of all the EVMs (at all booths) in that constituency = poses a serious logistical challenge and hence VVPATs are not the solution to counting level failures.

Why are EVMs used in India?

- The electronic voting machine came in India as a replacement to ballot papers and was First Used in No. 70 Parvur assembly constituency in Kerala in 1982.
- In a large scale, the machines have been in use in India since 1999. The machines have been credited with making the voting process simpler, as now vote can be registered with just a click on the button.
- The machines are also cost-effective in the long run. Although the initial cost of an EVM is between Rs 5,000 and Rs 6,000, the machine, on an average, lasts for 15 years.
- Further, the machines run on batteries and hence don't require electricity. They are also lighter and easily portable compared to the huge ballot boxes. The machines also make vote counting process faster, delivering results within hours as against manual counting of votes which Could Take Days.

12. Pradhan Mantri Swasthya Suraksha Nidhi

Why in News?

- The Union Cabinet has approved the Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN) as a single non-lapsable reserve fund for share of Health from the proceeds of Health and Education Cess.

Salient Features of the Pradhan Mantri Swasthya Suraksha Nidhi (PMSSN):

- It is a non-lapsable reserve fund for Health in the Public Account.
- Proceeds of share of health in the Health and Education Cess will be credited into PMSSN. The proceeds of Health and Education Cess are levied under Section 136-b of Finance Act, 2007.
- Accruals into the PMSSN will be utilized for the flagship schemes of the Ministry of Health & Family Welfare namely,
 - ✓ Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).
 - ✓ Ayushman Bharat - Health and Wellness Centres (AB-HWCs).
 - ✓ National Health Mission.
 - ✓ Pradhan Mantri Swasthya Suraksha Yojana (PMSSY).
 - ✓ Emergency & disaster preparedness and responses during health emergencies.
 - ✓ Any future programme/scheme that targets to achieve progress towards Sustainable Development Goals (SDGs) and the targets set out in the National Health Policy (NHP) 2017.
- Administration and maintenance of the PMSSN is entrusted to the Ministry of Health & Family Welfare (MoHFW).
- In any financial year, the expenditure on such schemes of the MoHFW would be initially incurred from the PMSSN and thereafter, from Gross Budgetary Support (GBS).

Benefits of PMSSN:

- Enhanced access to universal & affordable health care through availability of earmarked resources, while ensuring that the amount does not lapse at the end of financial year.

Significance of Spending on Healthcare:

- **Improved Developmental Outcomes:** From an economic standpoint, better health improves productivity, and reduces losses due to premature death, prolonged disability and early retirement.

◆ **Enhance Opportunities:** One extra year of population life expectancy raises GDP per capita by 4%, investment in health creates millions of jobs, largely for women, through a much-needed expansion of the health workforce.

About Health and Education Cess:

- In the Budget speech 2018, the Finance Minister while announcing Ayushman Bharat Scheme, also announced replacement of existing 3% Education Cess by 4% Health and Education Cess.
- It is collected with the aim of addressing the educational and healthcare needs of rural families in India.

What is Cess?

- Different from the usual taxes and duties like excise and personal income tax, a Cess is imposed as an additional tax besides the existing tax (tax on tax) with a purpose of raising funds for a specific task.
- The Union government is empowered to raise revenue through a gamut of levies, including taxes (both direct and indirect), surcharges, fees and cess.
- A cess, generally paid by everyday public, is added to their basic tax liability paid as part of total tax paid. Article 270 of the Constitution allows cess to be excluded from the purview of the divisible pool of taxes that the Union government must share with the States.
- Cess collected for a particular purpose cannot be used for or diverted to other purposes. A particular cess continues to be levied till the time the government collects enough funds for the purpose that it was introduced for.
- For example, the Swachh Bharat cess (abolished in 2017) was levied by the government for cleanliness activities.

How Cess is Different from Surcharge?

- Surcharge is an additional charge or tax levied on existing tax. The main surcharges are on personal income tax (on high income slabs and on super rich) and on corporate income tax.
- Despite both are not shareable with state governments, surcharge can be kept with the Consolidated Fund of India (CFI) and spent like any other taxes, the cess should be kept as a separate fund after allocating to CFI and can be spent only for a specific purpose.
- A surcharge is discussed under Article 270 and 271 of the Indian Constitution.
- Unlike a cess, which is meant to raise revenue for a temporary need, surcharge is usually Permanent in Nature.

13. Bureaucrats can't be State Election Commissioner

Why in News?

- The Supreme Court recently pulled up Goa for entrusting additional charge of election commissioner to a state official and ordered the Pramod Sawant Government to appoint an Independent Election chief Immediately.

What is the Issue?

- The government had given additional charge of state election commissioner to the law Secretary. The apex court was responding to an appeal by the Goa government against an order of the Bombay High Court, which had stayed some civic election notifications issued by the Goa election commission.

What did the Court Observe?

- “The independence of the election commission cannot be compromised in a democracy.
- Entrusting additional charge of state election commissioner to a government official is a mockery of the Constitution,” the court stated.
- The SC bench also took the opportunity to tell all state election commissioners in the country, currently holding additional charge, to step down right away.

About the State Election Commission:

- The Constitution of India vests in the State Election Commission, consisting of a State Election Commissioner, the superintendence, direction and control of the preparation of electoral rolls for, and the conduct of all elections to the Panchayats and the Municipalities (Articles 243K, 243ZA).
- The State Election Commissioner is appointed by the Governor.
- As per article 243(C3) the Governor, when so requested by the State Election Commission, make available to the State Election Commission such staff as may be necessary for the discharge of the functions conferred on the SEC by clause (1).

What was the need for State Election Commissions?

- Under the Constitution, Establishment of Local Self-government institutions is the responsibility of the states (entry 5, List II, Seventh Schedule).
- However, experience showed that not all state governments were serious about empowering Panchayati Raj institutions as elections were not being conducted regularly.

The Constitution was amended in 1992 to define the term (five years) for these institutions. Simultaneously, another provision was made for setting up a constitutional authority, the SEC, on the lines of the EC to conduct regular panchayat elections.

Do ECI and SECs have Similar Powers?

- The provisions of Article 243K of the Constitution, which provides for setting up of SECs, are almost identical to those of Article 324 related to the EC. In other words, the SECs enjoy the same status as the EC. In 2006, the Supreme Court emphasized the two constitutional authorities enjoy the same powers.
- ✓ In *Kishan Singh Tomar vs Municipal Corporation of the City of Ahmedabad*, the Supreme Court directed that state governments should abide by orders of the SECs during the conduct of the panchayat and municipal elections, just like they follow the instructions of the EC during Assembly and Parliament polls.

How far can Courts Intervene?

- Courts cannot interfere in the conduct of polls to local bodies and self-government institutions once the electoral process has been set in motion.
- Article 243-O of the Constitution bars interference in poll matters set in motion by the SECs; Article 329 bars interference in such matters set in motion by the EC.
- Only after the polls are over can the SECs' decisions or conduct be questioned through an election petition.
- These powers enjoyed by the SECs are the same as those by the EC.

In Practice, are the SECs as Independent as the EC?

- Although state election commissioners are appointed by the state governors and can only be removed by impeachment, in the last two decades many have struggled to assert their independence. One of the most widely remembered cases of confrontation happened in Maharashtra in 2008.
- Then state election commissioner Nand Lal was arrested and sent to jail for two days in March 2008 after the Assembly found him guilty of breach of privilege in an alleged conflict over his jurisdiction and powers.
- Lal had asserted that as the state election commissioner he had the power to hold elections to the offices of mayor, deputy mayor, sarpanch and deputy sarpanch.

After a Congress MLA moved a privilege motion objecting to the notification, the privileges committee of the Assembly asked him to appear and explain. Lal did not, which led to the committee concluding that he was creating hurdles in “constitutional and legislative functions”, a breach of privilege. He was sent for two days of civil imprisonment.

14. Centre likely to allow Residents to fill their NPR Details online

Why in News?

- The Centre will allow residents to fill columns in the National Population Register (NPR) forms on their own through online mode, a month before door-to-door enumeration by Census officials starts.

About the News:

- The details of the respondent would get displayed on a mobile application developed in-house for conducting the Census exercise but no “biometrics or documents” would be collected. These details would then be stored in the system for future use.
- The first phase of the decennial Census exercise — the House listing and Housing Census along with updating the NPR was scheduled to be held from April 1, 2020. It was postponed indefinitely due to the COVID-19 pandemic and is unlikely to be held this year.
- The second and main phase of Census — the population enumeration — was to be concluded by March 5 this year.
- Residents were to be given an option to self-enumerate only in the second phase (the population enumeration).
- As per MHA’s annual report, the option will now be made available for updating the NPR also. The NPR earlier collated in the years 2010 and 2015 has an electronic database of more than 119 crore residents.
- According to the recently published Ministry of Home Affairs’ (MHA) annual report for the year 2019-20, there will be a three-pronged approach for updating the NPR database — self updating, wherein it is proposed to allow residents to update their own data fields after following some authentication protocols in a web portal; updating of NPR data in paper format; and mobile mode. After filling the form online, residents will get a reference code that they could mention to the field enumerator at the time of her/his visit.

About the National Population Register (NPR):

- The NPR is a database containing a list of all usual residents of the country. Its objective is to have a comprehensive identity database of people residing in the country.

- It is generated through house-to-house enumeration during the “house-listing” phase of the census, which is held once in 10 years.
- The last census was in 2011, and the next will be done in 2021 (and will be conducted through a mobile phone application).
- A usual resident for the purposes of NPR is a person who has resided in a place for six months or more and intends to reside there for another six months or more

How it is Different from the Census?

- The census involves a detailed questionnaire and there were 29 items to be filled up in the 2011 census.
- They aimed at eliciting the particulars of every person, including age, sex, marital status, occupation, birthplace, mother tongue, religion, whether they belonged to any SC or ST etc.
- On the other hand, NPR collects basic demographic data and biometric particulars.
- Once the basic details of the head of the family are taken by the enumerator, an acknowledgement slip will be issued. This slip may be required for enrolment in NPR, whenever that process begins.
- The details will be recorded in every local (village or ward), sub-district (tehsil or taluk), district and state level.
- Once the details are recorded, there will be a population register at each of these levels. Together, they constitute the National Population Register.

What is the legal basis for the NPR?

- While the census is legally backed by the Census Act, 1948, the NPR is a mechanism outlined in a set of rules framed under the Citizenship Act, 1955.
- Section 14A was inserted in the Citizenship Act, 1955, in 2004, providing for the compulsory registration of every citizen of India and the issue of a “national identity card” to him or her.
- It also said the Central Government may maintain a “National Register of Indian Citizens”.
- The Registrar General India shall act as the “National Registration Authority” (and will function as the Registrar General of Citizen Registration).
- Incidentally, the Registrar General is also the country’s Census Commissioner.

15. Panel on Air Quality Dissolved

Why in News?

- Members who were part of the Commission for Air Quality Management said they were taken aback by the sudden dissolution of the body — constituted last October via Ordinance.

About Panel for Air Quality Management:

- The statutory authority called the commission for Air Quality Management was set after the President signed the “Commission for Air Quality Management in National Capital Region (NCR) and Adjoining Areas Ordinance, 2020”.
- This panel was Constituted to monitor the Air Quality in NCR and the Adjoining Areas.
- This Ordinance also dissolved the Environment Pollution (Prevention and Control) Authority (EPCA).
- The ordinance was passed in a bid to consolidate all the monitoring bodies and to bring a uniform platform in order to carry the air quality management in a comprehensive and Efficient Manner.

Background:

- The air quality monitoring and management in Delhi NCR region has been done by multiple bodies such as EPCA, Central Pollution Control Board (CPCB), state pollution control boards and the state governments in Delhi, Haryana, Rajasthan & Uttar Pradesh.
- They are monitored by the Union Ministry of Environment, Forests & Climate Change (MoEFCC) and Supreme Court.
- The supreme court monitors the air quality in accordance with ‘M C Mehta vs Union of India’, 1988 case Judgement.

Composition of Commission:

- The Commission was headed by full-time chairperson who happens to be the Secretary to Government of India or the Chief Secretary to State government.
- It was also composed of the members from various ministries and representatives from stakeholder states.
- It also comprised of experts from civil society, Indian Space Research Organisation and CPCB.

How was the New Commission Expected to Alter the Situation?

- By forming a new commission, the government took the issue of air pollution out of the purview of the judiciary.

- As per the Ordinance, only NGT, (and not civil courts) is authorized to hear cases where the commission was involved.
- The central government has got itself out of the clutch of Supreme Court and closed down SC-appointed EPCA.

Why the Body was Now Dissolved?

- The Panel was set by the Central government in the month of October 2020.
- Now the panel stands dissolved because the ordinance which was passed to set up the panel has lapsed. Ordinance had to be introduced in Parliament within six weeks. But it was not introduced within the prescribed time because of which the ordinance lapsed.
- The panel was headed by a former secretary in the Ministry of Petroleum and Natural Gas, M.M. Kuttu.

16. Bee fences to ward of Elephant Attack

Why in News?

- Pitting the largest animal on land against a minute insect. That is how the authorities intend to mitigate human-elephant conflict that seems to continue unabated in Kodagu and other parts of South Karnataka Region.

About the Project:

- A pilot project launched in Kodagu entails installing bee boxes along the periphery of the forest and the villages with the belief that the elephants will not venture anywhere close to the bees and thus avoid transgressing into human landscape. This idea stems from the elephants' proven fear of the bees.
- An initiative of the Khadi and Village Industries Commission (KVIC), Project RE-HAB (Reducing Elephant-Human Attacks using Bees) intends to create "bee fences" to thwart elephant attacks in human habitations using honeybees.
- The pilot project was launched at four locations around Chelur village in Kodagu district and these spots are located on the periphery of Nagarhole National Park and Tiger Reserve, known conflict zones.
- The total cost of the project is ₹15 lakh and Project RE-HAB is a sub-mission of KVIC's National Honey Mission.

How it works?

- The boxes are connected with a string so that when elephants attempt to pass through, a tug causes the bees to swarm the elephant herds and dissuade them from progressing further.

◆ Bee boxes have been placed on the ground as well as hung from the trees. High resolution, night vision cameras have been installed at strategic points to record the impact of bees on Elephants and their Behaviour in these Zones.

- The biggest advantage of Project RE-HAB is that it dissuades elephants without causing any harm to them. Besides being extremely cost-effective as compared to various other measures such as digging trenches or erecting fences.
- KVIC has roped in the College of Forestry under the University of Agriculture and Horticultural Sciences, Ponnampet, for impact assessment of the project.

What is Human-Elephant Conflict?

- Human-Elephant Conflict is broadly defined as “any human-elephant interaction that brings negative effects on social, economic or cultural life of humans, on elephant conservation or on the environment”.
- Human-Elephant Conflict can be categorised as ‘direct’ or ‘indirect’.
 - ✓ **Direct Conflicts:** Direct conflicts impacts upon economic and physical well being of the rural communities. Examples of direct conflict are crop damage, human death and Injury, damage to food stores, damage to other properties.
 - ✓ **Indirect Conflicts:** Indirect conflicts results in indirect social impacts upon people. For example, the efforts put on by the farmers to their crops and property, the fear of injury or death, and psychological stress etc. However unlike the direct conflicts, the impact of indirect conflicts cannot be translated to economic value.

Why Human-Elephant Conflicts Occur?

- Unlike tigers whose territories are within the protected areas, the elephants have only 20% of their range falling in the protected areas like national parks and sanctuaries. There are about 28 elephant reserves across India covering 61,830 sq. km.
- Due to deforestation and thinning out of forests, the elephants tend to disperse into areas with high density of human population. This has made the elephants to foray into areas where they had no history of presence for several decades, even centuries. Destruction of elephant habitat has made them to move constantly.
- Second, the growing human population has resulted in the expansion of human settlements in the elephant migration routes. This often results in the human-elephant conflicts. As of now, there are approximately 100 elephant corridors in the country. The conflict gets intensified when people try to chase away elephants with searchlights, crackers or guns, making the elephants even more aggressive.

Key Facts Regarding the Conflicts:

- Between 2015 and 2020, nearly 2,500 people have lost their lives in elephant attacks across India out of which about 170 human fatalities have been reported in Karnataka alone, according to KVIC.
- India has the largest number of wild Asian Elephants, estimated at 29,964 according to the 2017 census by Project Elephant. The figure amounts to about 60% of the species' global population.
- Over 500 humans are killed in encounters with elephants annually, and crops and property worth millions are also damaged. Many elephants are also killed in retaliation due to conflict.

Other Practices to Ward of Elephants:

- A variety of management strategies and practices has been developed and customised for implementing at different scales by the State Forest Departments for preventing and mitigating human-elephant Conflict.
- These best practices have been discussed under several categories such as retaining elephants in their Natural Habitats by creating water sources and management of forest fires. The other best practices include elephant-proof trenches in Tamil Nadu, hanging fences and rubble walls in Karnataka, use of chilli smoke in north Bengal and playing the sound of bees or Carnivores in Assam.

Use of Technology in Avoiding Conflicts:

- The process of individual identification and monitoring of elephants in south Bengal. Other ideas include sending SMS alerts to warn of elephant presence.
- The elephant expert recommended cost-benefit analysis for these policies and said that it should be done in context of the economic damage caused by elephants to crops.
- Practices such as elephant-proof trenches should be discouraged in areas that receive more than 1,500 mm rainfall a year. "Hanging wire electric fences that produce electricity for milliseconds have given positive results. These practices have been tried in Sri Lanka and Tamil Nadu".

Innovative practices around the world to minimise Human-Elephant conflicts:

- To keep elephants at a safe distance from their farms and homes, some African villagers have turned to two unlikely, all-natural solutions: bees and hot peppers. Elephants dislike the chemical capsaicin found in chilli peppers, prompting farmers in Tanzania to smother their fences with a mixture of oil and chilli peppers.

◆ Solar powered electric fences keep crop-raiding elephants out of fields in Africa. ◆

- In Canada, they constructed wildlife corridors, areas of preserved native habitat in human dominated regions, providing wildlife with a safe pathway as they travel between one to another.

About Asian Elephants:

- There are three subspecies of Asian elephant – the Indian, Sumatran and Sri Lankan.
- The Indian has the widest range and accounts for the majority of the remaining elephants on the continent.
- African elephants are listed as “vulnerable” and Asian elephants as “endangered” in IUCN Red List of threatened species.
- The elephant has been accorded the highest possible protection under the Indian wildlife law through its listing under Schedule I of the Wildlife (Protection) Act, 1972.
- Government of India has launched various initiatives for conservation of elephants.

What are the its Conservation Efforts?

- Project Elephant launched by the Government of India in the year 1992 as a Centrally Sponsored Scheme.
- ‘Gaj Yatra’ a nationwide awareness campaign to celebrate elephants and highlight the necessity of securing elephant corridors.
- The Wildlife Trust of India (WTI), had come out with a publication on the right of passage in 101 elephant corridors of the country in 2017, stressed on the need for greater surveillance and protection of elephant corridors.
- The Monitoring the Killing of Elephants (MIKE) programme launched in 2003 is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

17. Bill to define Delhi L-G’s powers moved in Lok Sabha

Why in News?

- The Ministry of Home Affairs (MHA) moved a bill in the Lok Sabha recently where it proposed that “government” in the national capital territory of Delhi means the Lieutenant Governor of Delhi.

About the Bill:

- The Bill gives discretionary powers to the L-G of Delhi even in matters where the Legislative Assembly of Delhi is empowered to make laws. The proposed legislation also seeks to ensure that the L-G is “necessarily granted an opportunity” to give her/his opinion before any decision taken by the Council of Ministers (or the Delhi Cabinet) is implemented.
- The Bill proposes to amend Sections 21, 24, 33 and 44 of the 1991 Act.

About Special Status for New Delhi:

- Article 239AA of the Constitution of India granted Special Status to Delhi among Union Territories (UTs) in the year 1991 through 69th constitutional amendment.
- It provided a Legislative Assembly and a Council of Ministers responsible to such Assembly with appropriate powers.
- That’s when Delhi was named as National Capital Region (NCT) of Delhi.
- As per this article – Public Order, Police & Land in NCT of Delhi fall within the domain and control of Central Government which shall have the power to make laws on these matters.
- For remaining matters of State List or Concurrent List, in so far as any such matter is applicable to UTs, the Legislative Assembly shall have the power to make laws for NCT of Delhi.

How powers of L-G differ from Delhi and Puducherry?

- Both Delhi and Puducherry has an elected legislature and government but the powers of the LG of Puducherry are different from the ones of the LG of Delhi.
- The LG of Delhi has “Executive Functions” that allow him to exercise his powers in matters connected to public order, police and land “in consultation with the Chief Minister, if it is so provided under any order issued by the President under Article 239 of the Constitution”.
- While the LG of Delhi is also guided by the Government of National Capital Territory of Delhi Act, 1991, and the Transaction of Business of the Government of National Capital Territory of Delhi Rules, 1993, the LG of Puducherry is guided mostly by the Government of Union Territories Act, 1963.
- Articles 239 and 239AA of the Constitution, as well as the Government of National Capital Territory of Delhi Act, 1991, clearly underline that Delhi is a UT, where the Centre, whose eyes and ears are the LG, has a much more prominent role than in Puducherry.
- Under the constitutional scheme, the Delhi Assembly has the power to legislate on all subjects except law and order and land. However, the Puducherry Assembly can legislate on any issue under the Concurrent and State Lists.

However, if the law is in conflict with a law passed by Parliament, the law passed by Parliament prevails.

- Simply put, the LG of Delhi enjoys greater powers than the LG of Puducherry.

What was SC's Guidelines for the LG's Conduct?

- It delineates the powers of the two branches of the executive in Delhi.
- The L-G is bound by the aid and advice of the Council of Ministers. In case of difference of opinion, the L-G should straightaway refer the dispute to the President for a final decision.
- The Lieutenant-Governor should act as a “facilitator” for good governance in the national capital and not as an “obstructionist”.
- The Lieutenant-Governor’s authority, saying he cannot exercise his discretion in “each and every matter” of daily governance. His discretionary powers are in fact limited to only matters in the State List — public order, police and land — over which the legislative power of the Delhi Legislative Assembly stand excluded under Article 239AA.
- The NCT government need only to inform the L-G of its “well-deliberated” decisions. The government need not obtain his “concurrence” on every issue of day-to-day governance.
- The elected government could make policies on laws enacted by its own Assembly. The Executive Power of the NCT government was co-extensive with its legislative powers.

18. SC steps in to protect Great Indian Bustard

Why in News?

- The Supreme Court recently swooped-in to intervene on behalf of the critically endangered Great Indian Bustards over the birds falling dead after colliding with power lines running through their Dwindling Natural habitats in Gujarat and Rajasthan.



What did Court's Observations?

- A Bench led by Chief Justice of India Sharad A. Bobde will examine on a priority basis whether overhead power cables can be replaced with underground ones to save one of the heaviest flying birds on the planet.
- The court found further that an alternative mechanism — to install flight bird divertors — to guide the birds away from the power lines would be expensive. In fact, the court discovered that the divertors, with their recurring costs, would end costing more than installing and maintaining underground lines.

But the court suggested treading the middle path. “Wherever there is high voltage power lines, they can use flight bird divertors even if the recurring costs are high. Wherever there are overhead low voltage lines, these lines can be placed underground”.

What are Firefly Bird Diverters?

- The diverters are called fireflies because they look like fireflies from a distance, shining on power lines in the night. This model has been endorsed by experts from the International Union for Conservation of Nature (IUCN) Species Survival Commission’s (SSC) Bustard Specialist Group. The firefly detectors have been installed in the Pokhran tehsil in Rajasthan.

About Great Indian Bustards (GIB):

- **IUCN Status:** Critically Endangered.
- Listed in Schedule I of the Indian Wildlife (Protection) Act, 1972 and in the CMS Convention and in Appendix I of CITES.
- Identified as one of the species for the Recovery Programme under the Integrated Development of Wildlife Habitats of the Ministry of Environment and Forests.
- Project Great Indian Bustard – state of Rajasthan – identifying and fencing off bustard breeding grounds in existing protected areas as well as provide secure breeding enclosures in areas outside protected areas. Protected areas: Desert National Park Sanctuary – Rajasthan, Rollapadu Wildlife Sanctuary – Andhra Pradesh and Karera Wildlife Sanctuary – Madhya Pradesh.

Habitats in India:

- Only two districts in Rajasthan – Jaisalmer and Barmer – have a breeding GIB population in the wild. The bird can also be found in very small numbers in Gujarat, Madhya Pradesh, Karnataka, Maharashtra and Andhra Pradesh.

19. Cabinet approves Bill to set up Development Finance Institution

Why in News?

- The Union Cabinet recently approved a Bill to set up a Development Finance Institution.

About the News:

- A bill for the creation of the Development Finance Institution (DFI) was approved by the cabinet that describes DFI as a provider, enabler and catalyst for infrastructure financing and as the principal financial institution and development bank for building and sustaining a supportive ecosystem across the life-cycle of infrastructure projects.

- ◆ Finance Minister Nirmala Sitharaman while presenting the Union Budget 2021-22 stated that India will set up a new DFI called the National Bank for Financing Infrastructure and Development.
- The DFI will be set up on a capital base of Rs. 20,000 crores and will have a lending target of Rs. 5 lakh crore in three years. Debt financing through the infrastructure investment trust (InvIT) and real estate investment trust (REIT) routes will be enabled through necessary amendments in the rules.
- In the year 2017, RBI specified that specialised banks could cater to the wholesale and long-term financing needs of the growing economy and possibly fill the gap in long-term financing. Thus, it would revive the concept of DFI, if the government wishes to keep societal, cultural, regional, rural and environmental concerns intact.

About Development Finance Institution (DFI):

- The Development Finance Institution (DFI) are organizations which are either owned by the government or by charitable institutions to finance infrastructure projects that are of National Importance but may or may not Meet Commercial Return Standards.

What are the Types of Finances?

- Medium (1-5 years)
- Long term (>5 years)

Need for DFIs in India:

- To Boost Economic Growth.
- To Improve Long Term Finances.
- To provide credit Enhancement for Infrastructure and Housing Projects.
- Debt flows towards Infrastructure Projects would be Improved.

Role of DFIs:

- The role of the Development Finance Institution (DFI) is to take cognizance of the gaps in institutions and markets in the country's financial sector and to act as a gap filler.
- DFIs have evolved in India in three below-mentioned phases:
 - ✓ The first phase began with Indian Independence to the year 1964.
 - ✓ The second phase began from 1964 to the mid-1990s.
 - ✓ In the third phase after 1993-94, the prominence of development banking declined, as liberalization resulted in the exit of some firms from development banking and in a waning in the resources mobilised by other firms.

Classification of DFIs:

- **Sector Specific Financial Institutions:** They focus on particular sectors to provide finance for the project. For example, NHB, EXIM Bank and so forth.
- **Investment Institutions:** They focus on facilitating business operations such as capital expenditure financing and equity offerings. For example, GIC, UTI and more.

List of important Development Finance Institutions (DFIs):

- **IFCI:** Industrial Finance Corporation of India was established in 1948. It is India's first Development Finance Institution.
- **ICICI:** Industrial Credit and Investment Corporation of India Limited was established in the year 1955 by an initiative of the World Bank and was the first DFI in the private sector. ICICI Limited established its subsidiary company ICICI Bank Limited in 1944 and in 2002, ICICI Limited was merged into ICICI Bank Limited, making it the first universal bank of India.
- **IDBI:** Industrial Development Bank of India was set up in 1964 under RBI and was granted autonomy in 1976. The bank is responsible for ensuring adequate flow of credit to various sectors and was converted into a universal bank in 2003.
- **IRCI:** Industrial Reconstruction Corporation of India was set up in 1971 to revive weak units and provide financial & technical assistance.
- **SIDBI:** Small Industries Development Bank of India was established in 1989 as a subsidiary of IDBI and was granted autonomy in 1998.
- **EXIM Bank:** Export-Import Bank was established in January 1982 to provide technical assistance and loan to exports.
- **NABARD:** National Bank for Agriculture and Rural Development was established in July 1982 on the recommendation of the Shivraman Committee and functions as a refinancing institution.
- **NHB:** National Housing Bank was established in 1988 to finance housing projects.
- After two important DFIs, namely, ICICI and IDBI were merged with their banking units, many functions of DFIs are now performed by commercial banks and these are actively performed by commercial banks that finance projects like DFIs. Thus, Commercial banks are called universal banks which provide all kind of financial services under one roof.

20. Right to Food

Why in News?

- The Supreme Court recently sought reply from Centre and states, on a plea alleging cancellation of nearly four crore ration cards, in the absence of linkages with the Aadhaar card.

About the News:

- The observation came on a plea filed by Koili Devi, mother of an 11-year-old girl, who allegedly died of starvation on September 28, 2017. The top court noted that this matter should not be Treated as Adversarial.
- "Insistence on Aadhar and biometric authentication had led to the cancellation of nearly 4 crore ration cards in the country according to the Union of India.

Food Security and the Right to Food:

- Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. Household food security is the application of this concept to the family level, with individuals within households as the focus of concern.
- The right to adequate food is a universal human right that is realized when all people have physical and economic access at all times to adequate food or the means for its procurement, without discrimination of any kind.
- Ensuring food security requires action in multiple dimensions, including: improving the governance of food systems; inclusive and responsible investments in agriculture and rural areas, in health and education; empowering small producers; and strengthening social protection mechanisms for risk reduction.
- **Article 21 of the Indian Constitution** embarks that right to life does not mean mere existence, but life with dignity but the Centre and state governments as well as ministries in the present grim scenario have failed to fulfil their obligations for effectively providing food security in the country.

Community Kitchen Initiatives Across the world:

- The State-funded community kitchen is not a new concept in the country. Tamil Nadu's Amma Unavagam had become a roaring success by involving peers in self-help groups, employing the poor to serve hygienic food to eradicate the growing problem of hunger on the streets.

Other examples are Rajasthan's Annapurna Rasoi, Indira Canteens in Karnataka, Delhi's Aam Aadmi Canteen, Anna Canteen in Andhra Pradesh, Jharkhand Mukhyamantri Dal Bhat and Odisha's Ahaar Centre were combating starvation and malnutrition crisis and serve meals at subsidised rates in hygienic conditions. In other countries, there are concepts of soup kitchen, meal centre, food kitchen or community kitchen, where food is offered to the hungry usually for free or sometimes at a below-market price. In the interest of justice and for entitlement of nutritious food, which has been held as a basic fundamental and human right, in both national and international law, alike, the establishment of community kitchens may be directed as an added mechanism for provision of nutritious food with the intent of holistically combating eradication of hunger, malnutrition and starvation in the country, and diseases, illnesses and deaths resulting thereof.

Why Community Kitchen is Important?

- Various schemes run by government to address the problem of hunger are futile in as much as there are eligible persons who have not been issued cards requisite to avail subsidies and benefits and then there is a segment of persons who are homeless and outside the grid of these schemes for the mere reasons that they do not possess a roof on their head. Public Distribution system (PDS) in India which accounts for distribution of wheat and rice, only, does not account for proteins and other components of a well-balanced diet, in turn leads to malnutrition.

Supreme Court on Food Security and Right to Food:

- Supreme Court has in a plethora of cases held that right to food comes within the purview of right to life and is a basic component to right to life. Issues pertaining to malnutrition and starvation deaths, emerging from inadequate nutrition and hunger crisis breach the fundamental right to food and are violative of Articles 14, 21, 38, 39 and 47, 51(c) of the Constitution of India. In the People's Union for Civil Liberties v. Union of India., (2013), commonly known as the "Right to Food Case", the Supreme Court directed all the States and UTs to introduce Mid-day meals for all children between the age of 6 to 14.
- This petition however sought implementation of a scheme providing cooked food to all persons. The present government's schemes to eradicate hunger suffer on account of ineffective implementation and the proposed community kitchens, managed with funding from the state as well as funds from Corporate Social Responsibility of the Companies Act, 2013 by a Public-Private Partnership, may be implemented to complement the existing schemes.

The Supreme Court in the case of *Maneka Gandhi v. Union of India*, 1978, stated that "Right to life enshrined under Article 21 means something more than animal instinct and includes the right to live with human dignity, it would include all aspects which would make life meaningful, complete and living."

- In *Shantistar Builders v. Narayan Khimala Totame*, (1990), it was held that "the right to life is guaranteed in any civilized society. That would take within its sweep the right to food."
- The Supreme Court in *Ahemdabad Municipal Corporation v. Nawab Khan Gulab Khan*, 1997, reminded the government of its duty towards the hungry and starving persons in the country and further held that the nation state should promote socio-economic justice and Fulfill the Basic Human Needs.

Government's Initiatives on Food Security:

- The government is running various schemes for combating hunger and malnutrition such as:
 - ✓ The Public Distribution System (PDS).
 - ✓ Antyodaya Anna Yojana (AAY).
 - ✓ The National Programme of Nutritional Support to Primary Education, also known as "Mid-Day Meal Scheme".
 - ✓ The Integrate Child Development Services (ICDS).
 - ✓ Annapurna Scheme.
 - ✓ The National Old Age Pension Scheme (NOAPS).
 - ✓ The National Maternity Benefit Scheme (NMBS).
 - ✓ The National Family Benefit Scheme (NFBS).
 - ✓ Furthermore, the Parliament of India enacted the National Food Security Act causing a paradigm shift in the approach food security from welfare to rights-based approach. Hence, both the State and Central Government in the country have launched a range of promotional, preventive and protective social measures to tackle deprivation, food insecurity and poverty alleviation.

Way Forward:

- India houses a staggering proportion of persons suffering from hunger, malnutrition and food insecurity, in today's day and age.
- Despite there being a wide range of governmental schemes and programmes intended to achieve the decline and eradication of pertinent issues of hunger and malnutrition, the desired result at present poses as a distant reality.

- ◆ As each of these schemes appear to be ridden with problems, ensuring right to food requires action on multiple fronts.
- It is noteworthy that in-spite of the existence of a plethora of schemes aimed at eradicating Hunger, Malnutrition, Starvation Deaths, and allied issues, the country is still grappling with the said problems on a large scale, leaving scope for newer radical solutions to combat the same.

21. Delhi HC stays Future on Reliance deal

Why in News?

- The Delhi High Court recently ruled that Future Retail Limited (FRL) and its promoters “deliberately and wilfully” violated the order of an emergency arbitrator (EA) restraining FRL from going ahead with its assets sale deal with Reliance Retail.

About the News:

- **What is the Future-Reliance deal?** In 2020, Biyani’s Future Group has entered into an agreement with Reliance Retail. Under this deal, Future was to sell its retail, wholesale, logistics and warehousing to Reliance.
- **Why has Amazon objected to the deal?** In 2019, Amazon had acquired a stake in Future Coupons in an agreement. As per Amazon, under this agreement, it has the first right of refusal in any stake sale in future retail.
- **Why did Amazon approach Singapore International Arbitration Centre (SIAC)?** Amazon and Future Group have under their agreement agreed to refer their disputes to SIAC. Hence, Amazon approached SIAC to appoint an emergency arbitrator to get urgent interim relief.
- **What was SIAC ruling:** SIAC emergency arbitrator had ruled in Amazon’s favour. It put the Future-Reliance deal on hold.

What is the Issue Now?

- **Enforcement of Ruling:** Currently under Indian law, there is no mechanism for the enforcement of the orders of the Emergency Arbitrator. However, a party can move the Indian High Court under Arbitration & Conciliation Act, 1996 to get similar reliefs as granted by the Emergency Arbitrator.
- **What has the Delhi High Court said?** It ruled that the order of the SIAC was enforceable in India the same manner as an order of this court.
- This provision is covered under Section 17(2) of Arbitration and Conciliation Act.

E-commerce major, Amazon, which opposes the multi-crore deal, had recently moved the NCLT against Future Group's plea to hold a meeting of its shareholders or creditors to approve the deal with Reliance.

What did the Delhi HC say?

- Noting that the intention of FRL and its promoters “do not appear to be honest”, the high court directed attachment of the assets of Future Coupons Private Limited (FCPL), FRL, Mr. Biyani and 10 other Promoters.
- It issued show-cause notices to all the promoters “to show cause why they be not detained in civil prison for a term not exceeding three months” for violation of the emergency arbitrator's order.
- The high court also imposed a cost of ₹20 lakh on Future Group which will be deposited in the Prime Minister's Relief Fund for providing COVID-19 vaccines to senior citizens of Below Poverty Line (BPL) Category.

About NCLT and NCLAT:

- NCLT was formed based on the recommendations of the Justice Eradi Committee that was related to insolvency and winding up of companies in India.
- As of now, the Ministry of Corporate Affairs has 15 NCLT benches.
- Each Bench is headed by a President, 16 judicial members, and 9 technical members.
- All proceedings under the Companies Act such as arbitration, arrangements, compromise, reconstruction, and winding up of the company will be disposed of by the Tribunal.
- The NCLT is also the Adjudicating Authority for **insolvency proceedings under the Insolvency and Bankruptcy Code, 2016**.
- In the above-mentioned subjects, no civil court will have jurisdiction.
- The NCLT has the authority to dispose of cases pending before the Board for Industrial and Financial Reconstruction (BIFR), as well as, those pending under the Sick Industrial Companies (Special Provisions) Act, 1985.
- It can take up those cases pending before the Appellate Authority for Industrial and Financial Reconstruction.
- It can also take up cases relating to the oppression and mismanagement of a company.
- The **National Company Law Appellate Tribunal (NCLAT)** is a tribunal which was formed by the Government under **Section 410 of the Companies Act, 2013**. NCLAT is responsible for hearing appeals from the orders of the National Company Law Tribunal.

◆ Decisions taken by the NCLT can be appealed to the National Company Law Appellate Tribunal (NCLAT). The decisions of the NCLAT can be appealed to the Supreme Court on a point of law.

22. SC to Hear Plea against Electoral Bonds

Why in News?

- Chief Justice of India Sharad A. Bobde agreed to urgently hear a plea by NGO Association for Democratic Reforms to stay the sale of a new set of electoral bonds on April 1, before Assembly elections in crucial States such as West Bengal and Tamil Nadu.

About the News:

- Supreme Court is about to hear on March 24 plea against sale of electoral bonds.
- The Reserve Bank of India (RBI) and the Election Commission had both said the sale of electoral bonds had become an avenue for shell corporations and entities to park illicit money and even proceeds of bribes with Political Parties.

What is an Electoral Bond?

- Electoral Bond is a financial instrument for making donations to political parties.
- The bonds are issued in multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any maximum limit.
- State Bank of India is authorised to issue and encash these bonds, which are valid for fifteen days from the date of issuance.
- These bonds are redeemable in the Designated Account of a Registered Political Party.
 - ✓ Every party that is registered under section 29A of the Representation of the Peoples Act, 1951 and has secured at least 1% of the votes polled in the most recent Lok Sabha or State election will be allotted a verified account by the Election Commission of India.
 - ✓ Electoral bond transactions can be made only via this account.
- The bonds are available for purchase by any person (who is a citizen of India or incorporated or established in India) for a period of ten days each in the months of January, April, July and October as may be specified by the Central Government.
 - ✓ A person being an individual can buy bonds, either singly or jointly with other individuals.
 - ✓ Donor's name is not mentioned on the bond.
- During general elections, the central government may specify an additional period of thirty days for sale of these bonds.

There have been some occasions when the government has deviated from the specified periodicity for issuance of these bonds.

- ✓ For example, the sixth tranche of electoral bonds was issued from 1st-10th November 2018 and electoral bonds were sold in the months of March, April and May during 2019 General Elections.

What are the Concerns?

- While the Scheme acts as a check against traditional under-the-table donations as it insists on cheque and digital paper trails of transactions, several key provisions of the scheme make it Highly Controversial.
- **Anonymity:**
 - ✓ Neither the donor (who could be an individual or a corporate) nor the political party is obligated to reveal whom the donation comes from.
 - ✓ In 2019, the Supreme Court held that all political parties who had received donations through electoral bonds must submit details to the Election Commission of India.
 - ✓ This undercuts a fundamental constitutional principle, the freedom of political information, which is an integral element of Article 19(1) (a) of the Constitution.
- **Defeating Transparency:**
 - ✓ It defeats the fundamental principle of transparency in political finance because it conceals from public scrutiny the identity of the Corporates and Moneybags.
- **Asymmetric Opacity:**
 - ✓ The government is always in a position to know who the donor is because the bonds are purchased through the SBI. This asymmetry of information threatens to colour the process in favour of whichever Political party is Ruling at the time.
- **Chanel of Black money:**
 - ✓ Elimination of a cap of 7.5% on corporate donations, elimination of requirement to reveal political contributions in profit and loss statements and also the elimination of the provision that a corporation must be three years in existence, undercuts the intent of the scheme.
 - ✓ Any troubled, dying or shell companies can donate an unlimited amount anonymously to a political party giving them a convenient channel for business to round-trip their cash parked in tax havens for a favour or advantage granted in return for something.

Way Forward:

- There is a need for fixing the governance system and effective regulation of political financing along with bold reforms to break the vicious cycle of corruption and erosion of quality of Democratic Polity. It is crucial to plug the loopholes in the current laws to make the entire governance machinery more accountable and transparent.
- Voters can help bring in substantial changes by demanding awareness campaigns. If voters reject candidates and parties that overspend or bribe them, democracy would move a step higher.

23. Lok Sabha passes bill on Devendrakula Vellalars

Why in News?

- The Lok Sabha recently passed The Constitution (Scheduled Castes) Order (Amendment) Bill, 2021, that seeks to put seven castes under one nomenclature of “Devendrakula Vellalars” with some exceptions for some of the castes in certain districts of Tamil Nadu.

About the News:

- The Tamil Nadu government had earlier accepted a recommendation of a committee to reclassify the seven sub sects under the generic name ‘Devendrakula Vellalar’ and forwarded it to the Centre.
- The castes include Devendrakulathan, Kadaiyan, Kalladi, Kudumban, Pallan, Pannadi and Vathiriyan.

Who are the Devendrakula Vellalars?

- The Devendra Kula Vellalar community is a Scheduled Caste community that has seven sub-sects and comprise over 17.05 per cent of the Scheduled Caste community in Tamil Nadu, according to Census 2011.
- The community has been demanding to be given a Most Backward status and remove SC status from their community, as they are agrarian and not manual scavengers. They also demanded a 6 per cent reservation for the community.
- This community is currently identified by seven different sub-sects, i.e., Devendrakulathan, Kudumban, Pannadi, Kaaladi, Kadayan, Pallan and Patharia.
- They had been demanding to bring all these sub-sects under one umbrella.
- Thus, now rather than being called by their independent sect name, they will all be called Devendrakula Vellalar.

Constitutional Provision for Listing and Delisting SC's:

- Article 341(1) of the Indian Constitution gives the president the power to notify which castes in the country, and in specific states come under the category of Scheduled Castes.
- According to Article 341 (2), the Parliament by law can include in or exclude from the list of Scheduled Castes. Scheduled Castes are those castes named in the Scheduled Castes order of the Government of India, promulgated in August 1950.
- The criteria for inclusion of a community/ caste in the Scheduled caste is extreme social, educational and economic backwardness arising out of traditional practice of untouchability.

The Procedures for Listing a Caste as an SC:

- Between 1950 and 1978, six Presidential Orders were issued recognising specific caste groups as SCs. The name 'Scheduled Caste' derives from the fact that this is annexed as a Schedule to the Constitution.
- Article 341(1) of the Constitution prescribes the procedure for regarding castes as "Scheduled Castes". As per the procedure to make additions or deletions to the Schedule by amending the concerned Presidential Order for a state under Article 341(2), state governments first propose to modify the Schedule.
- Only proposals agreed by both the Registrar General of India and the National Commission for Scheduled Castes are introduced as a Bill in Parliament.
- This procedure was adopted by the Ministry of Social Justice and Empowerment in 1999 and was amended in 2002. A similar provision exists for Scheduled Tribes under Article 342.

24. States Can Pass Resolutions Against Central laws, says SC

Why in News?

- The Supreme Court recently prima facie found no harm in State Legislative Assemblies, such as those in Kerala and West Bengal, passing resolutions against Central laws like the controversial Citizenship Amendment Act or the Controversial New Farm Laws.

About the News:

- The court was hearing a PIL filed by a Rajasthan-based NGO, Samta Andolan Samiti, that said State Assemblies, such as of Rajasthan, Kerala, Punjab and West Bengal, have no business passing resolutions against Central laws that come under the Union List of the Seventh Schedule of the Constitution.

- ~~CJI said, that “It is the opinion of the majority in the Kerala Assembly. They have not told~~ people to disobey the law, they have only told Parliament to abrogate the law. It is only an opinion and does not have the force of law”.
- But the petitioner said that the Kerala Assembly should not be having an opinion whether the law is “good, bad or indifferent”.
- Chief Justice Bobde said that state assemblies do have right to express an opinion.

Can a state Negate Central Laws?

- Article 254(2) refers to a scenario where a law made by a state legislature concerning any matter that falls in the Concurrent List contains any provision repugnant to the provisions of an earlier law made by Parliament or an existing law, with respect to that matter.
- In such a case, the law made by the state legislature will prevail, provided it is reserved for the consideration of the President of India and Receives His Assent.

How can states use this provision?

- This provision gives flexibility to a state legislature to make a law different from what is applicable in that state due to a parliamentary law already in operation there.
- This flexibility is only available on matters that are in the **concurrent list to Schedule 7 of the Constitution**. Under that list both the Parliament and the state legislatures could legislate — subject to the rule that the parliamentary law will prevail over a state law.

What all is Covered Under Concurrent List?

- The concurrent list provides a rich set of topics for the states to take a lead in reform. It covers areas such as criminal law and procedure, marriage, divorce and adoption, bankruptcy and insolvency, social security, education (including technical and medical education) and electricity. Agriculture too comes under this list.

Will this Provision help the States?

- Though states could come out with their own Bills to some extent to override the statutes of passed by the Parliament, none of those Bills would be effective unless the President accords his consent to Such Bills.

What happens if President does not give consent?

- According to legal experts, it's the sole prerogative of the President whether to sign the state Bills or not. It's a rare Circumstance, wherein a state Bill is accepted by the President without the Centre on Board. In case, the Centre is opposing the Bill, then the President, who works on the aid and advice of the Council of Ministers, can refuse to give his Consent.

Can states Approach the Supreme Court Challenging the Central Law?

- States can approach the Supreme Court under Article 131 — invoking the court’s “original jurisdiction” — that allows a state to file a suit in the Supreme Court in case of any dispute that it may have with the central government.
- Article 131 could be used to examine the Constitutionality of a Statute.

25. Indus Water Panel holds Meeting

Why in News?

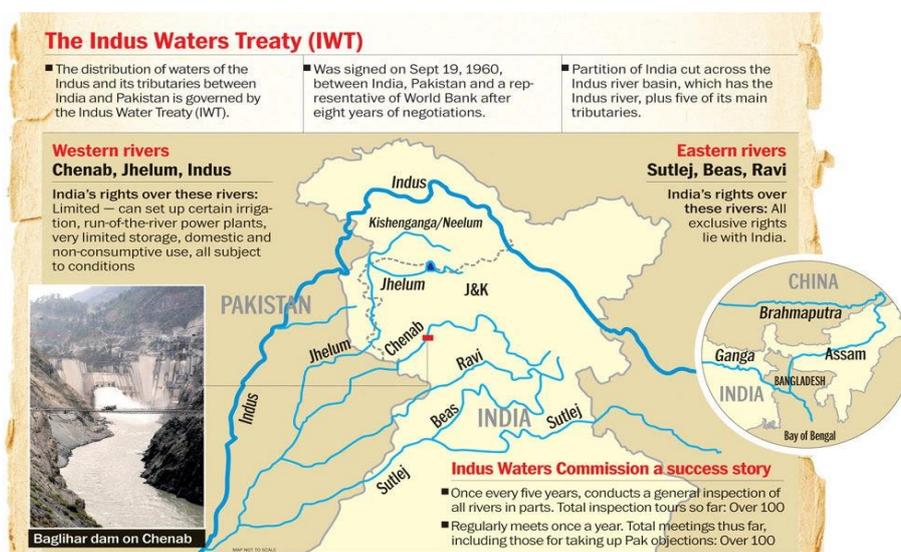
- After a gap of more than two and half years Indian and Pakistani delegations have begun the 116th Meeting of the Permanent Indus Commission.

Significance:

- The meeting is being viewed as part of the broader process of normalisation of bilateral ties between the Two Neighbours.

About the Indus Water Treaty:

- It is a Water-Distribution Treaty, signed in Karachi on 1960, between India (Pm Jawaharlal Nehru) and Pakistan (President Ayub Khan), brokered by the World Bank.
- Under the treaty, India has control over water flowing in the eastern rivers— Beas, Ravi and Sutlej.
- Pakistan has control over the western rivers— Indus, Chenab and Jhelum.
- As per the treaty, the water commissioners of Pakistan and India are required to meet twice a year and arrange technical visits to projects’ sites and critical river head works.
- Both the sides share details of the water flow and the quantum of water being used under the treaty.



Permanent Indus Commission:

- The Permanent Indus Commission is a bilateral commission of officials from India and Pakistan, created to implement and manage goals of the Indus Waters Treaty, 1960.
- The Commission according to the treaty must meet regularly at least once a year, alternately in India and Pakistan.
- The functions of the Commission are:
 - ✓ to study and report to the two Governments on any problem relating to the development on the waters of the rivers.
 - ✓ to solve disputes arising over water sharing.
 - ✓ to arrange technical visits to projects' sites and Critical River Head Works.
 - ✓ to undertake, once in every Five Years, a General Tour of Inspection of the Rivers for ascertaining the facts.
 - ✓ to take necessary steps for the Implementation of the Provisions of the treaty.

26. Justice N. V. Ramana to become 48th CJI

Why in News?

- Chief Justice of India Sharad Arvind Bobde has recommended Justice N. V. Ramana as his successor and the 48th Chief Justice of India in keeping with convention and the seniority norm.

How it works?

- The Chief Justice of India is traditionally appointed by the outgoing Chief Justice of India on the day of his (or her) retirement.
- By convention, the outgoing Chief Justice of India selects the most senior then-sitting Supreme Court judge.
- Seniority at the Apex Court is Determined not by age, but by:
 - ✓ The date a judge was appointed to the Supreme Court.
 - ✓ If two judges are elevated to the Supreme Court on the same day.
 - ✓ The one who was sworn in first as a judge would trump another.
 - ✓ If both were sworn in as judges on the same day, the one with more years of high court service would 'win' in the seniority stakes.
 - ✓ An appointment from the bench would 'trump' in seniority an appointee from the bar.

Is it a Part of the Constitution?

- The Constitution of India does not have any provision for criteria and procedure for appointing the CJI. Article 124(1) of the Indian Constitution says there “shall be a Supreme Court of India consisting of a Chief Justice of India”.
- The closest mention is in Article 126, which deals with the appointment of an acting CJI.
- In the absence of a constitutional provision, the procedure relies on custom and convention.

What is the Procedure?

- The procedure to appoint the next CJI is laid out in the Memorandum of Procedure (MoP) between the Government and the Judiciary:
 - ✓ The procedure is initiated by the Law Minister seeking the recommendation of the outgoing CJI at the ‘appropriate time’, which is near to the date of retirement of the incumbent CJI.
 - ✓ The CJI sends his recommendation to the Law Ministry; and in the case of any qualms, the CJI can consult the collegium regarding the fitness of an SC judge to be elevated to the post.
 - ✓ After receiving recommendation from the CJI, the law minister forwards it to the Prime Minister who then advises the President on the same.
 - ✓ The President administers the oath of office to the new CJI.

Does the Government Get a Say?

- Except for the law minister seeking the recommendation from the incumbent CJI, and forwarding it to the Prime Minister, the government has no say in the appointment of the CJI.
- Vis-a-vis the appointment of the CJI and the Appointment of SC judges, the Key Difference is that in the former, the Government cannot send the Recommendation of the CJI (or the collegium) back to them for reconsideration; while in the latter, the Government can do so. However, if the Collegium Reiterates those names, then the Government cannot object any Further.

27. SC Refuses to Stay Sale of Electoral Bonds

Why in News?

- The Supreme Court recently refused to stay the sale of electoral bonds before Assembly elections in crucial States like West Bengal and Tamil Nadu.

What is an Electoral Bond?

- Electoral Bond is a financial instrument for making donations to political parties.
- The bonds are issued in multiples of Rs. 1,000, Rs. 10,000, Rs. 1 lakh, Rs. 10 lakh and Rs. 1 crore without any Maximum Limit.
- State Bank of India is authorised to issue and encash these bonds, which are valid for fifteen days from the date of Issuance.
- These bonds are Redeemable in the Designated account of a registered Political Party.
 - ✓ Every party that is registered under section 29A of the Representation of the Peoples Act, 1951 and has secured at least 1% of the votes polled in the most recent Lok Sabha or State election will be allotted a verified account by the Election Commission of India.
 - ✓ Electoral bond transactions can be made only via this account.
- The bonds are available for purchase by any person (who is a citizen of India or incorporated or established in India) for a period of ten days each in the months of January, April, July and October as may be specified by the Central Government.
 - ✓ A person being an individual can buy bonds, either singly or jointly with other individuals.
 - ✓ Donor's name is not mentioned on the bond.
- During general elections, the central government may specify an additional period of thirty days for sale of these bonds.
- There have been some occasions when the government has deviated from the specified periodicity for issuance of these bonds.
 - ✓ **For example**, the sixth tranche of electoral bonds was issued from 1st-10th November 2018 and electoral bonds were sold in the months of March, April and May during 2019 General Elections.

What are the Concerns?

- While the Scheme acts as a check against traditional under-the-table donations as it insists on cheque and digital paper trails of transactions, several key provisions of the scheme make it Highly Controversial.
- **Anonymity:**
 - ✓ Neither the donor (who could be an individual or a corporate) nor the political party is obligated to reveal whom the donation comes from.
 - ✓ In 2019, the Supreme Court held that all political parties who had received donations through electoral bonds must submit details to the Election Commission of India.

◆ ~~This undercuts a fundamental constitutional principle, the freedom of political information, which is an integral element of Article 19(1) (a) of the Constitution.~~

- **Defeating Transparency:**

- ✓ It defeats the fundamental principle of transparency in political finance because it conceals from public scrutiny the identity of the corporates and Moneybags.

- **Asymmetric Opacity:**

- ✓ The Government is Always in a position to know who the donor is because the bonds are purchased through the SBI.

- ✓ This asymmetry of information threatens to colour the process in favour of whichever political party is Ruling at the time.

- **Chanel of Black money:**

- ✓ Elimination of a cap of 7.5% on corporate donations, elimination of requirement to reveal political contributions in profit and loss statements and also the elimination of the provision that a corporation must be three years in existence, undercuts the intent of the scheme.

- ✓ Any troubled, dying or shell companies can donate an unlimited amount anonymously to a political party giving them a convenient channel for business to round-trip their cash parked in tax havens for a favour or advantage granted in return for something.

Way Forward:

- There is a need for fixing the governance system and effective regulation of political financing along with bold reforms to break the vicious cycle of corruption and erosion of quality of Democratic Polity.
- It is crucial to plug the loopholes in the current laws to make the entire governance machinery more Accountable and Transparent.
- Voters can help bring in substantial changes by demanding awareness campaigns. If voters reject candidates and parties that overspend or bribe them, democracy would move a step Higher.

28.27 Migratory Birds Found Dead due to Avian Influenza

Why in News?

- As many as 27 migratory birds have been reported dead on account of avian influenza in Himachal Pradesh's Pong Dam Wildlife Sanctuary area forcing authorities to shut down the sanctuary.

About Avian Influenza (Bird Flu):

- It is a viral infection that can infect not only birds, but also humans and other animals. Most forms of the virus are restricted to birds.
- It is a highly contagious viral disease affecting several species of food-producing birds (chickens, turkeys, quails, guinea fowl, etc.), as well as pet birds and wild birds.
- Occasionally mammals, including humans, may contract avian influenza.
- Influenza A viruses are classified into subtypes based on two surface proteins, Hemagglutinin (HA) and Neuraminidase (NA).
- Although there are several types of bird flu, H5N1 was the first avian influenza virus to infect humans. The first infection occurred in Hong Kong in 1997. The outbreak was linked to handling infected poultry. H5N1 occurs naturally in wild waterfowl, but it can spread easily to domestic poultry. The disease is transmitted to humans through contact with infected bird faeces, nasal secretions, or secretions from the mouth or eyes.

About Pong Dam:

- In 1975, Pong dam was built across the Beas River. It is also called the Pong reservoir or the Maharana Pratap Sagar.
- In 1983, the entire reservoir was declared as a Wildlife Sanctuary by the Himachal Pradesh government.
- In 1994, the Government of India declared it a “Wetland of National Importance”.
- Pong Dam Lake was declared as Ramsar Site in November 2002.
- The lake is fed by Beas River and its numerous perennial tributaries such as Gaj, Neogal, Binwa, Uhl, Bangana, and Baner.
- The lake harbours around 22 species of fish, including rare fish like sal and gad. The adequate water level of the lake makes it an ideal destination to indulge in water sports.
- The sanctuary area is covered with tropical and subtropical forests, which shelters a great number of Indian Wildlife animals.
- Eucalyptus, acacia, jamun, shisham, mango, mulberry, ficus, kachnar, amla and prunus.
- Barking deer, sambar, wild boars, nilgai, leopards and oriental small-clawed otters.
- Black-headed gulls, Red necked grebes, plovers, terns, Ducks, Water-fowl egrets, and more.

What are Migratory Species?

- Migratory species are those species that move from one habitat to another during different times of the year, due to various Factors such as food, Sunlight, Temperature, Climate, etc.

Destination for Migratory Birds:

- The bird family **Muscicapidae (Old World Flycatchers)** has the highest number of migratory species. The next highest group of migratory birds is raptors or birds of prey, such as eagles, owls, vultures and kites which are from the family Accipitridae.
- The country has three flyways (flight paths used by birds): the Central Asian flyway, East Asian flyway and East Asian–Australasian flyway.
- Another group of birds that migrate in large numbers are waders or shore birds. In India, their migratory species number 41, followed by ducks (38) belonging to the family Anatidae.
- The Pong Dam sanctuary plays host to around 220 species of birds belonging to 54 families. Migratory birds from all over Hindukush Himalayas and also as far as Siberia come here during winter.

Why these Deaths now Occur in India?

- At this time of the year, the migratory birds are on their way back to their breeding Grounds in central Asia. Some of them may be infected because immunity levels are low as they are Coming from Different Wetlands.

29. Anticipatory Bail to Rape Accused

Why in News?

- A Vacation Bench of the Supreme Court recently granted anticipatory bail to Goa-based restaurateur Jude Lobo in a Complaint filed by a Delhi Woman, Accusing him of Rape.

What is Anticipatory Bail?

- Anticipatory bail is a direction to release a person on bail, issued even before the person is arrested.
- Under Indian criminal law, there is a provision for anticipatory bail under **Section 438 of the Criminal Procedure Code**.
- **Law Commission of India** in its 41st report recommended incorporating this provision in procedure code. This provision allows a person to seek bail in anticipation of an arrest on accusation of having committed a non-bailable offence.
- It is only issued by the Sessions court and High Court.

How SC Granted this Bail?

- The Bench sat on an urgent basis on Holi to hear Mr. Lobo's case for protection against arrest after the Delhi High Court refused the Calangute-based Souza Lobo restaurant owner any Relief.

Why Such a Law is Needed?

- Anticipatory bail helps to prevent influential powers from implicating their rivals in false cases.
- **Section 438** (anticipatory bail) of the Code of Criminal Procedure protects people from the ignominy of detention in jail for days on end and **disgrace to their reputation**.
- Anticipatory bail is more needed now because there is rising trend of political rivalry and is showing signs of Steady Increase.

SC Verdict regarding Anticipatory Bail:

- The questions referred to the Constitution Bench was, whether the protection granted to a person under Section 438 should be limited to a fixed period till the accused surrenders in court. Whether the life of Anticipatory bail should end when the accused is summoned by the court. SC said that the life or duration of an anticipatory bail order does not normally end at the time and stage when the accused is summoned by the court, or when charges are framed, but can Continue till the end of the Trial.

The back story of **advance bail**

- The old Cr.PC of 1898 did not contain any specific provision corresponding to the present Section 438. There was a difference of opinion among various HCs whether court had an inherent power to grant pre-arrest bail
- The Law Commission of India on September 24, 1969, highlighted the need for introducing a provision in the Code enabling courts to grant "anticipatory bail" as an antidote to detention in false cases

- Clause 447 of the Draft Bill of 1970 was enacted with some modifications and became Section 438 of the Cr.PC, 1973

A five-judge Supreme Court Bench in the 1980 case of Gurbaksh Singh Sibbia vs. State of Punjab interpreted that the power to grant anticipatory bail is "cast in wide terms and should not be hedged in through narrow judicial interpretation". It held that courts could impose conditions which were appropriate



Why this Judgment?

- Denial of bail amounts to deprivation of the Article 21 of the Indian Constitution (**fundamental right to personal liberty in a free and democratic country**).
- The specter of arbitrary and heavy-handed arrests: too often, to harass and humiliate citizens, and oftentimes, at the interest of powerful individuals (and not to further any meaningful investigation into offences) led to the enactment of Section 438.

- The protection against arrest should be in favour of the accused. Restricting the protection would prove unfavourable for the Accused.

Is there any a Restriction or Condition for Granting Bail?

- It is open for a court to impose appropriate conditions for grant of anticipatory bail if the specific facts or the feature of The offence Involved Demands it.
- Courts have to consider the nature of the offence, the role of the person, the likelihood of his influencing the course of investigation or tampering of evidence, including intimidating witnesses and fleeing justice.
- But restrictions/conditions can be imposed only on a case-to-case basis.

What is the Concern?

- The court held that a plea for anticipatory bail can be filed even before the registration of FIR as long as there is reasonable basis for apprehension of arrest and clarity of facts.
- However, the grant of protection should not be “blanket” but confined to specific offence or incident for which relief from Arrest is sought.

30. Pradhan Mantri Awas Yojana

Why in News?

- The Rural Development Ministry told a Parliamentary Standing Committee that only less than 6% of houses sanctioned under the Centre’s flagship rural housing scheme in 2020-21 have reached completion so far this year, as COVID-19 is Stalling Progress.

About the News:

- With a little over a year to go to achieve its goal of “Housing for All”, the Pradhan Mantri Awas Yojana-Gramin has only completed 55% of its construction target, although money has been sanctioned for almost 85% of beneficiaries.
- Of the 2.28 crore houses to be built for the rural poor under the Yojana, less than 1.27 crore had been completed by January 28, 2021, according to the Committee’s report presented to the Lok Sabha earlier this month. Another 61 lakh are under construction.
- According to data provided by the Ministry in 2019, it takes an average of 114 days to construct a house under the scheme. However, the advent of the pandemic caused long delays at Every Stage.

Who are Eligible for PMAY scheme?

- Eligibility for PMAY scheme are mentioned below:

- ✓ The maximum age limit of the beneficiary is 70 years.
- ✓ The beneficiary should have a family that comprises of husband, wife and unmarried children.
- ✓ The beneficiary should not own a Pucca House either in their names or in the name of any member of the family in any state of India.
- ✓ The annual income should be between 3 lakhs to 6 lakhs if the beneficiary is from LIG (Low Income Group).
- ✓ Membership of one adult female member of the family is mandatory in ownership of the House.

About Pradhan Mantri Awas Yojana – Gramin (Ministry of Rural Development):

- **Objective:** To help rural people below the poverty line (BPL) in construction of dwelling units and upgradation of existing unserviceable kutchha houses by providing assistance in the form of a full grant.
- **Beneficiaries:** Beneficiaries are people belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, Disabled persons and Minorities.
- **Selection of Beneficiaries:** Beneficiaries are chosen according to data taken from the Socio-Economic Caste Census (SECC) of 2011.
- **Timeline:** The project will be implemented in a span of three years and expected to boost job creation in rural areas.

About Pradhan Mantri Awas Yojana – Urban (Ministry of Urban Affairs):

- The Mission is being implemented during 2015- 2022 and will provide central assistance to Urban Local Bodies (ULBs) and other implementing agencies through States/UTs.
- All statutory towns as per Census 2011 and towns notified subsequently would be eligible for coverage under the Mission.
- **It has the Following Provisions:**
 - ✓ In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation
 - ✓ Credit Linked Subsidy
 - ✓ Affordable Housing in Partnership
 - ✓ Subsidy for Beneficiary-led individual house Construction/Enhancement

- ◆ In the spirit of cooperative federalism, the mission provides flexibility to the States for choosing the best options amongst the above four verticals to meet the demand of housing in their states.
- Process of project formulation and approval in accordance with the mission Guidelines has been left to the States so that projects can be formulated, approved and implemented Faster.

Way Forward:

- Availability of land in cities at affordable pricing is one of the major challenges.
- The Government could facilitate the development of affordable housing by making surplus land held by PSUs (Public Sector Undertakings) available for affordable housing projects.
- Also, local Government's property that is no longer useful can be monetised by selling to developers.
- The central Government should guide the states on programmes to allocate and incentivise the usage of land for affordable housing, while also incentivising state governments to facilitate Engagement and Implementation.
- It is also recommended to incentivise developers for infrastructure and last mile connectivity development in semi-urban centres. It can be in the form of an increase in FSI or Reduction in stamp duty or tax, and others. Infrastructure upgrading precedes the FSI Increase to ensure that Existing Households are not Adversely Impacted due to the new Development.

3.1. POLITY & GOVERNANCE SNIPPETS

1. E-Daakhil portal

Why in News?

- The Union Government has informed that the 'E-Daakhil' portal for consumer grievance redressal is now operational in 15 states and Union Territories (UTs).

E-Daakhil:

- The Consumer Protection Act, 2019, which came into force on July 20, 2020, has a provision for e-filing of Consumer Complaints in the Consumer Commissions and online payment of the fees for Filing a Complaint.
- A web application for e-filing of consumer complaints named 'edaakhil.nic.in' has been developed by NIC for the purpose.

E-filing was launched by the National Consumer Disputes Redressal Commission (NCDRC) on September 7, 2020. Delhi was the first state to implement it on September 8, 2020.

Features of the Portal:

- The E-Daakhil portal empowers the consumer and their advocates to file the consumer complaints along with payment of requisite fees online from anywhere for the redressal of their complaints.
- It facilitates the consumer commissions to scrutinise the complaints online to accept, reject or forward the complaint to the concerned commission for further processing.
- The digital software for filing consumer complaints has many features like e-notice, case document download link and virtual hearing link, filing written response by the opposite party, filing rejoinder by complainant and alerts via SMS/e-mail.
- To facilitate the rural consumers for e-filing, it has been decided to integrate the common service centres (CSC) with the E-Daakhil portal.

2. NITI Aayog proposes revisions to National Food Security Act

Why in News?

- The NITI Aayog has recently proposed a revision in the National Food Security Act (NFSA), 2013 for lowering the coverage of both rural and urban population to save up to Rs 47,229 Crore Annually.

National Food Security (NFS) Act:

- The NFS Act, 2013 aims to provide subsidized food grains to approximately two-thirds of India's 1.2 billion people.
- It was signed into law on 12 September 2013, retroactive to 5 July 2013.
- It converts into legal entitlements for existing food security programmes of the GoI.
- It includes the Midday Meal Scheme, Integrated Child Development Services (ICDS) scheme and the Public Distribution System (PDS).
- Further, the NFSA 2013 recognizes maternity entitlements.
- The Midday Meal Scheme and the ICDS are universal in nature whereas the PDS will reach about two-thirds of the population (75% in rural areas and 50% in urban areas).
- Pregnant women, lactating mothers, and certain categories of children are eligible for daily free cereals.

Key Provisions of NFSA:

- The NFSA provides a legal right to persons belonging to “eligible households” to receive foodgrains at a subsidised price.
- It includes rice at Rs 3/kg, wheat at Rs 2/kg and coarse grain at Rs 1/kg — under the Targeted Public Distribution System (TPDS).
- These are called central issue prices (CIPs).

What has NITI Aayog Asked for Review?

- A revision of CIPs is one of the issues that have been discussed.
- The other issues are updating of the population covered under the NFSA, and beneficiary identification criteria.
- Under sub-section (1) of Section 3 of the Act, the term “eligible households” comprises two categories — “priority households”, and families covered by the Antyodaya Anna Yojana (AAY). Priority households are entitled to receive 5 kg of foodgrains per person per month, whereas AAY households are entitled to 35 kg per month at the same prices.

Provisions for Review:

- Under Schedule-I of the Act, these subsidised prices were fixed for “a period of three years from the date of commencement of the Act”.
- While different states began implementing the Act at different dates, the deemed date of its coming into effect is July 5, 2013, and the three-year period was therefore completed on July 5, 2016.
- However, the government has yet not revised subsidised prices.
- The government can do so under Schedule-I of the Act, after completion of the three-year period.
- To revise the prices, the government can amend Schedule-I through a notification, a copy of which has to be laid before each House of Parliament as soon as possible after it is issued.
- The revised prices cannot exceed the minimum support price for wheat and coarse grains, and the derived minimum support price for rice.

The Question of coverage:

- The Act has prescribed the coverage under “eligible households” — 75% of the rural population and up to 50% of the urban population.
- On the basis of Census 2011 figures and the national rural and urban coverage ratios, 81.35 crore persons are covered under NFSA currently.

◆ This overall figure has been divided among the states and UTs, based on the NSS Household Consumer Expenditure Survey 2011-12.

- Section 9 of the Act deals with an update of coverage of the population under the Act.
- However, given the population increase since then, there have been demands from the states and union territories to update the list by ensuring an annual updating system under NFSA.

Propositions by NITI Aayog:

- The NITI Aayog has suggested that the national rural and urban coverage ratio be reduced from the existing 75-50 to 60-40.
- If this reduction happens, the number of beneficiaries under the NFSA will drop to 71.62 crores (on the basis of the projected population in 2020).
- To make these changes in the law, the government will have to amend sub-section (2) of Section 3 of the NFSA. For this, it will require parliamentary approval.

Implications of the Move:

- If the national coverage ratio is revised downward, the Centre can save up to Rs 47,229 crore (as estimated by the NITI Aayog paper).
- On the other hand, if the rural-urban coverage ratio remains at 75-50, then the total number of people covered will increase from the existing 81.35 crores to 89.52 crore —an increase of 8.17 crore.
- This estimate by the NITI Aayog is based on the projected 2020 population, and, according to the paper, will result in an additional subsidy requirement of Rs 14,800 crore.

3. Farmer Produce Organizations (FPOs)

Why in News?

- The Ministry of Agriculture and Farmers Welfare has recently celebrated the first anniversary of the Central Sector Scheme titled 'Formation & Promotion of 10,000 Farmer Produce Organizations (FPOs)'.

Highlights:

- In February 2020, at Chitrakoot (Uttar Pradesh) with a budgetary provision of Rs. 6865 crore. More than 2200 FPOs produce clusters have been allocated for the formation of FPOs in 2020-21. Implementing Agencies (IAs) are engaging Cluster-Based Business Organizations (CBBOs) to aggregate, register & provide professional handholding support to each FPO for a period of 5 years.

◆ CDBOs will be the platform for an end to end knowledge for all issues related to FPO promotion. It provides financial assistance up to Rs. 18.00 lakh per FPO for a period of 3 years.

- The Provision has also been made for matching equity grant up to Rs. 2,000 per farmer member of FPO with a limit of Rs. 15.00 lakh per FPO.
- The Provision of a credit guarantee facility up to Rs. 2 crores of project loan per FPO from the eligible lending institution to ensure institutional credit accessibility to FPOs.

Advantages:

- It will promote the selling of farmers' produce from the farm gate of farmers thereby enhancing farmers' income.
- This will shorten the supply chain and accordingly marketing costs will get reduced resulting in better income for farmers. It will accelerate more investment in marketing and value addition infrastructure near to farm gates creating more employment opportunities for rural youth. It will make farming more viable by aggregating land.

About Farmer Producer Organization:

- It is a legal entity formed by primary producers, viz. farmers, milk producers, fishermen, weavers, rural artisans, craftsmen.
- It is a generic name for an organization of producers of any produce, e.g., agricultural, non-farm products, artisan products, etc.
- It can be a production company, a cooperative society or any other legal form which provides for sharing of profits/benefits among the members.
- In some forms like producer companies, institutions of primary producers can also become a member of PO. The concept of 'Farmer Producer Organizations, (FPO)' consists of collectivization of producers especially small and marginal farmers so as to form an effective alliance to collectively address many challenges of agriculture such as improved access to investment, technology, inputs, and markets. It is one type of PO where the members are farmers. They are generally mobilized by promoting institutions/resource agencies (RAs). Small Farmers' Agribusiness Consortium (SFAC) is providing support for the promotion of FPOs.
- The resource agencies leverage the support available from governments and agencies like National Bank for Agriculture and Rural Development (NABARD) to promote and nurture FPOs.

4. Rashtriya Uchchatar Shiksha Abhiyan (RUSA)

Why in News?

- Recently, the Union Education Minister chaired a review meeting on Rashtriya Uchchatar Shiksha Abhiyan (RUSA).

Highlights:

- It aims at providing strategic funding to higher education institutions throughout the country. It is being operated in mission mode for funding state universities and colleges to achieve the aims of equity, access and excellence.
- It is a centrally sponsored scheme launched in October 2013. Since 2016-17, the government has spent an average of Rs. 1,500 crore every year on RUSA.
- Improve the overall quality of state institutions by conforming to the prescribed norms and standards.
- Adoption of accreditation (certification of competency) as a mandatory quality assurance framework.
- The Promoting autonomy in state universities and improving governance in institutions.
- It ensures reforms in the affiliation, academic and examination system.
- It ensures adequate availability of quality faculty in all higher educational institutions and ensure capacity building at all levels of employment.
- It creates an enabling atmosphere for research in the higher education system.
- The Correct regional imbalances in access to higher education by setting up institutions in unserved and underserved areas.
- Improve equity in higher education by providing adequate opportunities to the disadvantaged.
- Need to draw plans on educating additional 3.5 crore students to increase Gross Enrolment Ratio (GER) to 50% by 2035. India's higher education enrollment is calculated in terms of GER, which is the ratio of population in the 18-23 age group to the number of people enrolled in higher education.
- According to All India Survey on Higher Education (AISHE), the GER in higher education has increased from 25.8% in 2017-18 to 26.3% in 2018-19, while in absolute terms the enrolment increased from 3.66 crores to 3.74 crore students.

5. EX Desert FLAG VI

Why in News?

- EX Desert FLAG VI is scheduled to be held from March 3 to March 27 at Al-Dhafra airbase, UAE.

Exercise Desert Flag:

- Ex Desert Flag is an annual multi-national large force employment warfare exercise hosted by the United Arab Emirates Air Force.
- The Indian Air Force is participating for the first time in Exercise Desert Flag-VI along with the air forces of the United Arab Emirates, the United States of America, France, Saudi Arabia, South Korea and Bahrain.
- The IAF is participating with six Su-30 MKI, two C-17 and one IL-78 tanker aircraft.
- C-17 Globemaster will provide support for induction/de-induction of the IAF contingent.
- Su-30 MKI aircraft will undertake long range ferry, routing direct from India to the exercise area with aerial refuelling support from IL-78 tanker aircraft.
- The aim of the exercise is to provide operational exposure to the participating forces while training them to undertake simulated air combat operations in a controlled environment.
- The participating forces will get an opportunity to enhance their operational capabilities along with Mutual Exchange of Best Practices.

6. Swachhta Saarthi Fellowship

Why in News?

- Recently, The Office of the Principal Scientific Adviser to the Government of India under its “Waste to Wealth” Mission launched the “Swachhta Saarthi Fellowship”.

Highlights:

- Its objectives are to recognize students, community workers/self-help groups, and municipal/sanitary workers who are engaged in tackling the enormous challenge of waste management, scientifically and sustainably.
- **Three Categories of Awards under the Fellowships:**
 1. **Category-A:** Open to School students from 9th to 12th standards engaged in waste management community work.
 2. **Category-B:** Open to College students (UG, PG, Research students) engaged in waste management community work.

3. ~~Category C: Open to Citizens working in the community and through SHGs, municipal or sanitary workers working beyond specifications of their job requirements/descriptions.~~

About Waste to Wealth Mission:

- This mission will identify, develop, and deploy technologies to treat waste to generate energy, recycle materials, and extract worth.
- The Waste to Wealth Mission is one of the nine national missions of the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).
- The mission will assist and augment the Swachh Bharat and Smart Cities projects to create circular economic models that are financially viable for waste management to streamline waste handling in the country.

About E-waste to Wealth: New Technology (IIT Delhi):

- Indian Institute of Technology, Delhi has developed a zero-emission technology to manage and recycle e-waste to wealth.
- The new methodology uses e-waste as an "Urban Mine" for metal recovery and energy production. The e-waste is shredded and pyrolyzed to yield liquid and gaseous fuels, leaving behind a metal-rich solid fraction.
- On further separation, the leftover solid residue yields a 90-95% pure metal mixture and Some Carbonaceous Materials.
- The carbonaceous material is further converted to aerogel for oil spillage cleaning, dye removal, carbon dioxide capture, and use in supercapacitors.
- This technology will cater to the needs of "Smart Cities," "Swachh Bharat Abhiyan," and "Atmanirbhar Bharat" initiatives.

7. Insurance Ombudsman Rules, 2017

Why in News?

- The Union government has recently amended the Insurance Ombudsman Rules, 2017, bringing insurance brokers within the ambit of the Insurance Ombudsman and also allowed Policy holders to File Online Complaints.

Highlights:

- The amended rules will cover even the deficiencies in service on the part of insurers, agents, brokers and other intermediaries.

It introduced ICT Enabled Complaint Redressal, which Enables making complaints Electronically, Complaints Management System to Enable Policyholders to track the status of their complaints online and Video-conferencing for Hearings.

- These amendments will strengthen the timeliness and cost-effectiveness of the Mechanisms.

Ombudsman:

- A number of amendments have been made for securing the independence and integrity of the ombudsman selection process, while also building in safeguards to secure the independence and impartiality of the appointed persons while serving as ombudsmen.
- The selection committee will now include an individual with a track record of promoting consumer rights or advancing the cause of consumer protection in the insurance sector.
- In exercise of the powers conferred by the Insurance Regulatory and Development Authority Act, 1999 and in accordance with the Redressal of Public Grievances Rules, 1998, the office of Insurance Ombudsman was established by the Central Government.
- Its powers, functions, terms of office etc. were laid in Insurance Ombudsman Rules, 2017.
- An Ombudsman shall be selected from amongst persons having experience of the insurance industry, civil service, administrative service or judicial service.
- An Ombudsman shall be selected by a Selection Committee comprising of:
 - ✓ Chairperson of the Insurance Regulatory and Development Authority (IRDA) who is also the Chairman of the Selection Committee. One representative each of the Life Insurance Council and the General Insurance Council from the Executive Council of Insurers.
 - ✓ A representative of the Government of India not below the rank of a Joint Secretary.
- Three years and it is eligible for reappointment provided that no person shall hold office as an Ombudsman after he has attained the age of seventy years.

8. Sub-Mission on Agroforestry (SMAF) Scheme

Why in News?

- MoU between the Ministry of Agriculture and Farmers' Welfare and the Central Silk Board on a convergence model for the implementation of Agroforestry in the silk sector under the ongoing Sub-Mission on Agroforestry (SMAF) Scheme.

Highlights:

- The signing of this MoU aims to incentivize the farmers to take up sericulture based Agroforestry models thereby contributing to the Make in India and Make for the World vision of the Prime Minister.

◆ This linkage will add Another Dimension to Agroforestry for faster returns to the growers as well as support the production of the range of silks that India is famous for.

- The Central Silk Board will act as a catalyst to promote Agroforestry in the silk sector.

Sub-Mission on Agroforestry (SMAF):

- This scheme has been implemented since 2016-16 as part of the recommendation of the National Agroforestry Policy 2014.
- It is implemented by the Department of Agriculture, Cooperation and Farmers' Welfare in 20 states and 2 UTs.
- This sub-mission is under the National Mission for Sustainable Agriculture (NMSA).
- SMAF aims to encourage farmers to plant multi-purpose trees together with the **Agriculture Crops** for:
 - ✓ Climate Resilience
 - ✓ Additional source of Income to the Farmers
 - ✓ Enhanced Feedstock to inter alia wood-based and Herbal Industry
- Hence, there is a concerted effort to include medicinal, fruits, fodder, tree-borne oilseeds, lac host, etc. in addition to the longer rotation timber species.
- This is especially targeted for augmentation of sericulture host plants e.g. Mulberry, Asan, Arjuna, Som, Soalu, Kesseru, BadaKesseru, Phanat, etc. to be cultivated both as block plantations and border or peripheral plantations on farmlands.

Significance:

- Planting sericulture-based tree species on the farm bunds and rearing silkworms has the potential of creating additional income opportunities for farmers.

SMAF Objectives:

- To encourage and expand tree plantation in a complementary and integrated manner with crops and livestock to improve productivity, employment opportunities, income generation and livelihoods of rural households, especially the small farmers.
- To ensure the availability of quality planting material like seeds, seedlings, clones, hybrids, improved varieties, etc.
- To popularise various Agroforestry practices/models suitable for different agro-ecological Regions and land use Conditions.
- To create Database, Information and Knowledge support in the area of Agroforestry.
- To provide extension and capacity building Support to the Agroforestry Sector.

9. Production-Linked Incentive (PLI)

Why in News?

- Recently, the Union Cabinet has approved the Production-Linked Incentive (PLI) scheme for the telecom sector with an outlay of Rs. 12,195 crores over five years.

Highlights:

- In order to boost domestic manufacturing and cut down on import bills, the central government in March 2020 introduced a scheme that aims to give companies incentives on incremental sales from products manufactured in domestic units.
- Apart from inviting foreign companies to set shop in India, the scheme also aims to encourage local companies to set up or expand existing manufacturing units.
- It has been approved for many sectors including electronic products, IT hardware, pharmaceuticals, automobiles and components, etc.
- It is for domestic manufacturing of telecom and networking products such as switches, routers, 4G/5G radio access network, wireless equipment and other internet of things (IoT) access devices. It will be operational from 1st April, 2021.
- An investor who qualifies for the scheme will be incentivised up to 20 times the minimum investment threshold, enabling them to utilise their unused capacity.

Higher Incentives for MSMEs:

- For Micro, Small and Medium Enterprises (MSMEs), the minimum investment threshold has been kept at Rs. 10 crore, while for others it is Rs. 100 crore.
- For MSMEs, a 1% higher incentive is also proposed in the first three years.
- It is expected to lead to an incremental production of about Rs. 2.4 lakh crore, with exports of about Rs. 2 lakh crore over five years and bring in investments of more than Rs. 3,000 crore. It is also likely to generate 40,000 direct and indirect employment opportunities and generate tax revenue of Rs. 17,000 crore from telecom equipment manufacturing.
- Through this scheme, India will move towards self-reliance. Currently, India imports over 80% of its telecom and wireless Networking Equipment.

10. Defence Acquisition Council (DAC)

Why in News?

- Recently, Multibillion deals for armed drones from the USA and advanced submarines under Project-75I are to be taken by the Defence Acquisition Council (DAC).

Highlight:

- India has been looking to procure 30 armed drones, 10 for each service, from the USA but the process has been repeatedly delayed over the last couple of years.
- The USA has given in principle approval for the sale of these armed drones to India during the India-US 2+2 ministerial dialogue. While the Navy has a pressing requirement for the High-Altitude Long Endurance (HALE) drones, there have been questions on their utility for the Army and Air Force, given the high cost of the platform.
- Since the stand-off with China in Eastern Ladakh in May 2020, the need for long endurance drones to maintain continuous surveillance of the border has been acutely felt.
- The Navy has already inducted two MQ-9B Sea Guardian unarmed drones procured from the USA.
- The Project 75I-class submarine is a follow-on of the Project 75 Kalvari-class submarine for the Indian Navy.
- The project is being processed through the Strategic Partnership (SP) model of the Defence Procurement Procedure (DPP).
- The strategic partnership model seeks to identify a few Indian private companies as Strategic Partners who would initially tie up with a few shortlisted foreign Original Equipment Manufacturers (OEMs) to manufacture big-ticket military platforms.
- It aims to promote the role of Indian industry in defence manufacturing and build a domestic defence industrial ecosystem.
- This project is part of the 30 year Plan for indigenous submarine construction and it got its approval by the Cabinet Committee on Security in 1999.
- The idea behind this was to help in streamlining the submarine acquisition process and creating two submarine production lines where the plan was to construct six submarines on each.

About Defence Acquisition Council:

- It is the highest decision-making body in the Defence Ministry for deciding on new policies and capital acquisitions for the three services (Army, Navy and Air Force) and the Indian Coast Guard. The Minister of Defence is the Chairman of the Council.
- It was formed, after the Group of Ministers recommendations on 'Reforming the National Security System', in 2001, post Kargil War (1999).

11. National Social Assistance Programme (NSAP)

Why in News?

- The Parliamentary Standing Committee on Rural Development has slammed the Centre's meagre pension allocations under National Social Assistance Programme (NSAP).

What did the New Report Flag?

- The panel slammed the government's laxity in raising the amount, pointing out the recommendations to increase the sums.
- It observed the meagre amount of assistance ranging from ₹200 to ₹500 per month under the different components of this Scheme.
- The panel also flagged delays and statewide disparities in the payment of wages and unemployment allowances under the flagship MGNREGA scheme.

NSAP:

- NSAP is a Centrally Sponsored Scheme of the GoI that provides financial assistance to the elderly, widows and persons with disabilities in the form of social pensions.
- It was launched on 15th August 1995.
- The scheme represents a significant step towards the fulfilment of the Directive Principles in Article 41.
- Article 41 of the Constitution of India directs the State to provide public assistance to its citizens in case of unemployment, old age, sickness and disablement.
- For getting benefits under NSAP the applicant must belong to a Below Poverty Line (BPL) family.

Components of NSAP:

- The NSAP at its inception in 1995 had three components namely
 - ✓ National Old Age Pension Scheme (NOAPS),
 - ✓ National Family Benefit Scheme (NFBS) and
 - ✓ National Maternity Benefit Scheme (NMBS).
- The NMBS was subsequently transferred on 1st April 2001 from the Ministry of Rural Development to the Ministry of Health and Family Welfare.
- On 1st April 2000, a new Scheme known as Annapurna Scheme was launched.
- In February 2009, two new Schemes are known as Indira Gandhi National Widow Pension Scheme (IGNWPS) and Indira Gandhi National Disability Pension Scheme (IGNDPS) were introduced.

- Presently NSAP comprises of five schemes, namely –
 - ✓ Indira Gandhi National Old Age Pension Scheme (IGNOAPS)
 - ✓ Indira Gandhi National Widow Pension Scheme (IGNWPS)
 - ✓ Indira Gandhi National Disability Pension Scheme (IGNDPS)
 - ✓ National Family Benefit Scheme NFBS) and
 - ✓ Annapurna

12. SDG India Index, 2021

Why in News?

- The third rendition of India's Sustainable Development Goals (SDG) Index will be launched by NITI Aayog today.

SDG India Index:

- The index measures the progress at the national and sub-national level in the country's journey towards meeting the Global Goals and targets.
- It has been successful as an advocacy tool to propagate the messages of sustainability, resilience, and partnerships, as well. From covering 13 Goals, 39 targets, and 62 indicators in the first edition in 2018-19 to 17 Goals, 54 targets and 100 indicators in the second; this third edition of the index covers 17 Goals, 70 targets, and 115 indicators.

Aims and Objectives:

- The construction of the index and the ensuing methodology embodies the central objectives of measuring the performance of States and UTs on the SDGs and ranking them.
- It aims at supporting States and UTs in identifying areas which require more attention; and promoting healthy competition among them.

Methodology and Process:

- The index estimation is based on data on indicators for the first 16 goals, with a qualitative assessment for Goal 17. The technical process of target setting and normalization of scores follow the globally established methodology.
- While target setting enables the measurement of the distance from the target for each indicator, the process of normalization of positive and negative indicators allows for comparability and estimation of goal wise scores. The composite score of a State is derived by assigning each goal the same weight, keeping in mind the indivisible nature of the 2030 Agenda. The selection of indicators is preceded by a consultative process undertaken in close coordination with MoSPI, Union Ministries and stakeholders from States and UTs.

Significance:

- The index represents the Articulation of the Comprehensive nature of the Global Goals under the 2030 Agenda while being attuned to the National Priorities.
- The modular nature of the index has become a policy tool and a ready reckoner for Gauging the progress of States and UTs on the nature of goals Including Health, Education, Gender, Economic Growth and Climate Change and the Environment.

13. Energy Efficiency Enterprise (E3) Certifications Programme

Why in News?

- Recently, the Ministry of Power has launched "Energy Efficiency Enterprise (E3) Certifications Programme for the Brick Manufacturing Sector".

Highlights:

- E3 certification is an accreditation process focused on the Brick industry. The certification will be provided by the Bureau of Energy Efficiency (BEE).
- It is aimed at tapping huge energy efficiency potential in this sector.
- It is an initiative to recognise burnt clay brick manufacturers who adopt energy-efficient manufacturing and encourage customers to source bricks from such E3 certified Manufacturing Units.
- It will be awarded to Brick Manufacturing Enterprises that meet the minimum Specific Energy Consumption (SECVol) performance criteria specified in the Scheme.
- It is a shift from conventional to efficient technologies and product shift towards low density bricks with better thermal insulation.
- The adoption of the E3 Certification is currently voluntary for the Brick industry.

Brick Manufacturing Sector:

- The brick sector contributes nearly 0.7% to the country's GDP, offers seasonal employment generation to over 1 crore workers, and has a strong influence on other economic sectors such as Transportation and Construction.
- India is the world's second largest producer of bricks and this demand is expected to multiply three to four times over the next 20 years, through the E3 Certification program.
- The brick manufacturing industry consumes about 45-50 million tonnes of coal equivalent annually, amounting to 5-15% of the total energy consumption in the country.

- The brick sector has the second largest potential for energy efficiency amongst the Indian Industrial Sector after steel and more than Cement.

Significance:

- ✓ Energy savings in the brick manufacturing process.
- ✓ Improved Quality of Bricks.
- ✓ Cost Savings to Builders.
- ✓ Energy savings to occupiers of buildings due to better thermal comfort and improved Insulation Properties.
- The Scheme seeks to accelerate brick sector modernization, using market incentives to create customer demand to fulfil the vision for Aatmanirbhar Bharat.
- Energy efficient bricks will be useful in complying with the requirements of Energy Conservation Buildings Code (ECBC).

14. Mera Ration

Why in News?

- Recently, the 'One Nation One Ration Card' system in the country, the Ministry of Consumer Affairs, Food and Public Distribution has launched the 'Mera Ration' mobile app to benefit citizens in identifying the nearest Fair Price Shop (FPS).

Highlights:

- It is developed by the National Informatics Center (NIC).
- The Language available are English and Hindi.
- It is planned to be introduced in 14 languages which will be identified on the basis of places where most migrant people move.

Advantages:

- It can identify and locate the nearest fair price shop.
- It can easily check details of their foodgrain entitlement, recent transactions and the status of Aadhaar Seeding.
- It can register their Migration Details.
- It has an option to enter Suggestions/Feedback.

About One Nation One Ration Card (ONORC):

- It is being implemented by the Department of Food and Public Distribution for the nation-wide portability of ration cards under National Food Security Act (NFSA) 2013.

- The Act legally entitled upto 75% of the rural population and 50% of the urban population to receive subsidized food grains under Targeted Public Distribution System.
- This system allows all NFSA beneficiaries, particularly migrant beneficiaries, to claim either full or part foodgrains from any Fair Price Shop (FPS) in the country through an existing ration card with biometric/Aadhaar authentication in a seamless manner.
- The freedom of choosing any FPS was not available earlier.
- States completing the One Nation-One Ration Card system reform were eligible for additional borrowing of 0.25% of gross state domestic product (GSDP).
- Seventeen states have operationalised 'One Nation-One Ration Card' system with Uttarakhand being the latest to complete the reform.

15. Places of Worship (Special Provisions) Act, 1991

Why in News?

- Recently, The Supreme Court asked the Centre to respond to a plea challenging the Places of Worship (Special Provisions) Act, 1991 which freezes the status of places of worship as it was on 15th August, 1947.

Highlights:

- It seeks to maintain the “religious character” of places of worship as it was in 1947 except in the case of Ram Janmabhoomi-Babri Masjid dispute, which was already in court.
- The Section 3 of the Act bans the conversion of a place of worship or even a section of it into a place of worship of a different religious denomination or of a different segment of the same religious denomination.
- The Section 4(2) says that all suits, appeals or other proceedings regarding converting the character of a place of worship (that were pending on 15th August, 1947) will come to end when the Act commences and no fresh proceedings can be filed.
- The legal proceedings can be initiated if the change of status took place after the cut-off date of 15th August, 1947 (after enactment of the Act).
- The Act also imposes a positive obligation on the State to maintain the religious character of every place of worship as it existed at the time of Independence.
- This legislative obligation on the State to preserve and protect the equality of all faiths is an essential secular feature and one of the basic features of the Indian Constitution.

Supreme Court's View (in 2019):

- In the 2019 Ayodhya verdict, the Constitution Bench referred to the law and said it manifests the secular values of the Constitution and strictly prohibits retrogression.
- It has been challenged on the ground that the Act violates secularism.
- It has been argued that the cut-off date of 15th August, 1947 is “arbitrary, irrational and retrospective” and prohibits Hindus, Jains, Buddhists, and Sikhs from approaching courts to “reclaim” their places of worship which were “invaded” and “encroached” upon by “Fundamentalist Barbaric Invaders”.
- It is argued that the Centre has no power to legislate on “pilgrimages” or “burial grounds” which is under the state list. However, the government had said it could make use of its residuary power under Entry 97 of the Union List to enact this law.
- Entry 97 confers residuary powers to the Centre to legislate on subjects that are not enumerated in any of the three lists.

16. 'India's arms imports down by 33%'

Why in News?

- According to a report from a Swedish think tank, Stockholm International Peace Research Institute (SIPRI), India's arms imports decreased by 33% between 2011–15 and 2016–20.

Highlights:

- Despite a fall in imports, India continues to remain the second-largest arms importer after Saudi Arabia.
- A drop in arms imports between 2011–15 and 2016–20 seems to be mainly due to its complex and lengthy procurement processes, combined with its attempts to reduce its dependence on Russian arms by diversifying its network of arms suppliers.
- Russia was the largest arms supplier in both periods.
- Russia's deliveries dropped by 53% between the two periods and its share of Indian arms imports fell from 70 to 49%.
- The U.S. was the second-largest arms supplier to India in 2011–15 but in 2016–20, India's arms imports from the U.S. were 46% lower than in the previous five-year period, making the U.S. the fourth-largest supplier in 2016–20.
- France and Israel were the Second and Third Largest arms suppliers in 2016–20.

India's Plans Over the Next 5 Years:

- As India perceives increasing threats from Pakistan and China and as its ambitious plans to produce its own major arms have been significantly delayed, it is planning large-scale programmes for arms imports.
- Based on its outstanding deliveries of combat aircraft, air defence systems, ships and submarines, India's Arms imports are expected to increase over the coming 5 years.

17. Come out with 'rule curve' for Mullaperiyar: SC

Why in News?

- The Supreme Court said that the Tamil Nadu Chief Secretary will be personally responsible and appropriate action will be taken on failure to give information on the rule curve for the Mullaperiyar dam to the Supreme Court-appointed Supervisory Committee.

Highlights:

- The court Directed the Supervisory Committee to issue directions or take steps to address the three core safety issues and submit a compliance report.
- The monitoring and performance of the instrumentation of the dam
- Finalising the rule curve
- Fixing the Gate Operating Schedule

Rule Curve:

- The rule curve in a dam decides the fluctuating storage levels in a reservoir.
- The gate opening schedule of a dam is based on the rule curve.
- It is part of the "core safety" mechanism in a dam.

Mullaperiyar Dam:

- The Mullaperiyar Dam is a masonry gravity dam on the Periyar River in the Indian state of Kerala.
- The dam is located in Kerala on the river Periyar, but is operated and maintained by Tamil Nadu state. The dispute between Kerala and Tamil Nadu states is because of the control and safety of the dam and the validity and fairness of the lease agreement.
- The dispute began in 1998 when Tamil Nadu wanted to raise the height of the water level and Kerala opposed it.

18. MPLAD Scheme

Why in News?

- The funds from Members of Parliament Local Area Development Scheme (MPLADS) were recently, disbursed to the village panchayats of Goa.
- Due to Covid-19 pandemic MPLAD Funds Scheme is currently suspended and the Disbursed Funds were Allocated Earlier.

Highlights:

- It is a Central Sector Scheme which was announced in December 1993.
- It came under the control of the Ministry of Rural Development. Later, in October 1994, it was transferred to the Ministry of Statistics and Programme Implementation.
- The MPs receive Rs. 5 crore in two instalments of Rs. 2.5 crore each. Funds under MPLADS are non-lapsable.
- Lok Sabha MPs have to recommend the district authorities projects in their Lok Sabha constituencies, while Rajya Sabha MPs have to spend it in the state that has elected them to the House. Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.
- The projects include assets building such as drinking water facilities, primary education, public health sanitation and roads.
- Since June 2016, the MPLAD funds can also be used for implementation of the schemes such as Swachh Bharat Abhiyan, Accessible India Campaign (Sugamya Bharat Abhiyan), conservation of water through rain water harvesting and Sansad Aadarsh Gram Yojana, etc.

National Commission to Review the Working of the Constitution, 2002:

- Recommended immediate discontinuation of the MPLAD scheme on the ground that it was inconsistent with the spirit of federalism and distribution of powers between the centre and the state. 2nd Administrative Reforms Commission's report on "Ethics in Governance", 2005: Opined that it seriously erodes the notion of separation of powers, as the legislator directly becomes the executive.

Supreme Court Judgement, 2010:

- A five-judge bench of the Supreme Court ruled that there was no violation of the concept of separation of powers because the role of an MP in this case is recommendatory and the actual work is carried out by the Panchayats and Municipalities which belong to the Executive Organ.

19. Rajya Sabha Passes Bill to raise FDI limit in Insurance Sector

Why in News?

- The Rajya Sabha passed the Insurance Amendment Bill, 2021. The bill will be sent to the Lok Sabha for Approval.
- The bill increases the maximum foreign investment allowed in an insurance company from 49% to 74%.

Criticisms:

- Opposition parties raised concerns about the clause enabling “control and ownership” by foreign investors. It was pointed out that big insurance firms were not in shortage of capital and that the Bill differed from the government motto of “Atmanirbhar Bharat”.
- It was highlighted that the insurance firms had managed to get FDI even up to the present limit of 49%. Justification to increase the limit was also sought.

Details:

- The Finance Minister assured that the policy holder’s money would not leave Indian shores and have to be compulsorily invested here.
- It was argued that more FDI would mean greater competition and thus better-negotiated premiums for the end-user.
- Under the new structure, the majority of directors on the board and key management persons would be resident Indians, with at least 50% of directors being independent directors. It was highlighted that the key management personnel would have to be Indians and therefore would be governed by Indian laws.
- The increase in FDI limit is expected to encourage foreign insurers to bring more capital into the country which has a huge potential for growth in the sector.

20. Vehicle Scrapping Policy

Why in News?

- The Union Road and Transport Minister has recently announced the Vehicle Scrapping Policy in the Lok Sabha.

Highlights:

- It was first announced in the Union Budget for 2021-22. It is estimated to cover 51 lakh Light Motor Vehicles (LMVs) that are above 20 years of age and another 34 lakh LMVs above 15 Years of Age.

- India will also implement a Global Positioning System (GPS)-based toll collection system and do away with all toll booths within a Year.
- It aims in reducing the population of old and defective vehicles, bringing down vehicular air pollutants, improving road and Vehicular Safety.
- Old vehicles will have to pass a fitness test before re-registration and as per the policy Government Commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped. Old vehicles will be tested at the Automated Fitness Center and the fitness test of the vehicles will be conducted according to international standards.
- The Emission test, braking system, safety components will be tested and the vehicles which fail in the fitness test will be scrapped.
- The Ministry has also issued rules for registration procedure for scrapping facilities, their powers, and scrapping procedure to be followed.

Advantages:

- It will lead to creation for more scrap yards in the country and effective recovery of waste from Old Vehicles. In the new fitness centers, 35 thousand people will get employment and an investment of Rs 10,000 crores will be Pumped in.
- The government treasury is expected to get around Rs 30,000 to 40,000 crores of money through Goods and Services Tax (GST) from this policy.
- The Prices of auto components would fall substantially with the recycling of metal and Plastic Parts. As scrapped materials will get cheaper the production cost of the Vehicle Manufacturers will also reduce. It will help improve fuel efficiency and reduce pollution. As older vehicles pollute the environment 10 to 12 times more, and estimated that 17 lakh medium and heavy commercial vehicles are more than 15 years old.

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- It aims in reducing the population of old and defective vehicles, bringing down vehicular air pollutants, improving road and Vehicular Safety.
- Old vehicles will have to pass a fitness test before re-registration and as per the policy Government Commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped.
- Old vehicles will be tested at the Automated Fitness Center and the fitness test of the vehicles will be conducted according to international standards.
- The Emission test, braking system, safety components will be tested and the vehicles which fail in the fitness test will be scrapped.
- The Ministry has also issued rules for registration procedure for scrapping facilities, their powers, and scrapping procedure to be followed.

Advantages:

- It will lead to creation for more scrap yards in the country and effective recovery of waste from Old Vehicles.
- In the new fitness centers, 35 thousand people will get employment and an investment of Rs 10,000 crores will be Pumped in.
- The government treasury is expected to get around Rs 30,000 to 40,000 crores of money through Goods and Services Tax (GST) from this policy.
- The Prices of auto components would fall substantially with the recycling of metal and Plastic Parts.
- As scrapped materials will get cheaper the production cost of the Vehicle Manufacturers will also reduce.
- It will help improve fuel efficiency and reduce pollution. As older vehicles pollute the environment 10 to 12 times more, and estimated that 17 lakh medium and heavy commercial vehicles are more than 15 years old.

22. Skill Certification

Why in News?

- The Ministry of Skill Development and Entrepreneurship has asked all Government Departments to ensure that Workers Executing Government Contracts must have official Certification for their Skills.

Highlights:

- Initially, up to 10% of the strength of workers utilized in 2021-22 can be certified. This can be progressively increased to 100% by 2026-27.
- Low Level of Trained Workforce: Only 2.4% of India's workforce is formally trained as per the Periodic Labour Force Survey of 2018-19.
- India's skill regulator, the National Council for Vocational Education and Training, has standardised skill certification systems for 4,000-odd job roles, as part of an effort to change the labour market structure from a largely unskilled one to a predominantly formally skilled workforce.
- Informal and Low Wage: Government contractors prefer to rely on informal workers with low salaries for meeting their labour needs.
- Paradoxical Situation: This is a paradoxical situation wherein the government is trying to promote skilling in the workforce without insisting on the use of skilled manpower for its own project.

Significance:

- The Demand for skilling would start coming from the industry and labour force itself, which will prefer to pay for skilling itself, doing away with the present system of the Government trying to drive skilling through funding.
- The Improvement in wages for the skilled manpower hired.
- Given the quantum of manpower engaged in government and government contract works, this would help in making skilling aspirational for our youth and spread the culture of certified skilling.
- Enhance Productivity and Quality will lead to higher productivity and output quality in Government Contract Works.

Challenges in the certification:

- Insufficient job-linked training is leading to low Employability rate in India.
- Low industry interface in training institutes is leading to poor placements and lower salaries.
- The enrolment in skill institutes like ITIs, and Polytechnics, Remains low as compared to their Enrolment Capacity. This is due to low awareness levels among youths about the skill Development Programmes.

23. Mission Karmayogi

Why in News?

- The Union Minister of Personnel, Public Grievances & Pensions has informed about the Mission Karmayogi to Parliament.

Mission Karmayogi:

- The mission is established under the National Programme for Civil Services Capacity Building (NPCSCB).
- It is aimed at building a future-ready civil service with the right attitude, skills and knowledge, aligned to the vision of New India.
- It is meant to be a comprehensive post-recruitment reform of the Centre's human resource development, in much the same way as the National Recruitment Agency approved last week is pre-recruitment reform.

Why such a Mission?

- The capacity of Civil Services plays a vital role in rendering a wide variety of services, Implementing Welfare Programs and Performing core Governance Functions.

Major Undertakings of the scheme:

- The scheme will cover 46 lakh, Central government employees, at all levels, and involve an outlay of ₹510 crores over a five-year period, according to an official statement.
- The programme will support a transition from “rules-based to roles-based” HR management so that work allocations can be done by matching an official's competencies to the requirements of the post.
- Apart from domain knowledge training, the scheme will focus on “functional and behavioural competencies” as well, and also includes a monitoring framework for performance evaluations.
- Eventually, service matters such as confirmation after the probation period, deployment, work assignments and notification of vacancies will all be integrated into the proposed framework.
- The capacity building will be delivered through the iGOT Karmayogi digital platform, with content drawn from global best Practices Rooted in Indian National Ethos.

Apex Bodies Under the Mission:

- The Prime Minister's Public Human Resource Council will be set up as the apex body to direct the reforms.

- There will be an autonomous Capacity Building Commission to be established to manage the reformed system and Harmonize training standards across the country so that there is a common Understanding of India's aspirations and development goals.
- A wholly government-owned, not-for-profit special purpose vehicle will be set up to own and operate the digital platform and its Content.

24. Chief Justice of India (CJI)

Why in News?

- N.V. Ramana, the senior most judge of the Supreme Court, has recently been recommended as the next top judge by the present Chief Justice of India (S A Bobde).

Highlights:

- Justice Ramana will take over as the 48th Chief Justice of India (CJI) from 24th April 2021. He would be the CJI till 26th August, 2022.
- The Chief Justice of India and the Judges of the Supreme Court (SC) are appointed by the President under clause (2) of Article 124 of the Constitution.
- As far as the CJI is concerned, the outgoing CJI recommends his successor.
- The Union Law Minister forwards the recommendation to the Prime Minister who, in turn, advises the President. SC in the Second Judges Case (1993), ruled that the senior most judge of the Supreme Court should alone be appointed to the office of the CJI.
- The Supreme Court collegium is headed by the Chief Justice of India and comprises four other senior most judges of the court.
- The collegium system is the system of appointment and transfer of judges that has evolved through judgments of the Supreme Court (Judges Cases), and not by an Act of Parliament or by a provision of the Constitution.
- It is common to refer to the office as *primus inter pares* – first amongst equals.
- Besides his adjudicatory role, the CJI also plays the role of the administrative head of the Court. In his administrative capacity, the Chief Justice exercises the prerogative of allocating cases to particular benches.
- The Chief Justice also decides the number of judges that will hear a case.
- Thus, he can influence the result by simply choosing judges that he thinks may favour a particular outcome.
- Such administrative powers can be exercised without collegial consensus, and without any stated reasons.

25. National Bank for Financing Infrastructure and Development (NBFID) Bill, 2021

Why in News?

- The Rajya Sabha has recently cleared the National Bank for Financing Infrastructure and Development (NBFID) Bill, 2021.

Highlights:

- The Bill seeks to establish the National Bank for Financing Infrastructure and Development (NBFID) as the principal Development Financial Institution (DFIs) for infrastructure financing.
- NBFID was announced in the Budget 2021.
- NBFID will be set up as a corporate body with authorised share capital of one lakh crore rupees.
- To directly or indirectly lend, invest, or attract investments for infrastructure projects located Entirely or partly in India.
- Includes facilitating the development of the market for bonds, loans, and derivatives for Infrastructure Financing.

The Functions of NBFID are:

- ✓ Extending loans and advances for infrastructure projects.
- ✓ Taking over or refinancing such existing loans.
- ✓ Attracting investment from private sector investors and institutional investors for infrastructure projects.
- ✓ Organising and facilitating foreign participation in infrastructure projects.
- ✓ Facilitating negotiations with various government authorities for dispute resolution in the field of infrastructure financing.
- ✓ Providing consultancy services in infrastructure financing.
- It may raise money in the form of loans or otherwise both in Indian rupees and foreign currencies, or secure money by the issue and sale of various financial instruments including bonds and debentures.
- It may borrow money from the central government, Reserve Bank of India (RBI), scheduled commercial banks, mutual funds, and multilateral institutions such as the World Bank and Asian Development Bank.
- Initially, the Central Government will own 100% shares of the institution which may Subsequently be reduced up to 26%.

26. No-Permission-No-Takeoff (NPNT)

Why in News?

- The Ministry of Civil Aviation has recently granted permits to "No-Permission-No-Takeoff (NPNT) compliant drone operations at 34 additional green zones to facilitate, smoothen, and promote drone operations in the country.

Highlights:

- NPNT is a software program that enables every Remotely Piloted Aircraft (except Nano) to obtain a valid permission through DigitalSky platform before operating in India.
- Remotely Piloted Aircraft (RPA) is defined as an Unmanned Aircraft (UA), which is piloted from a remote pilot station. Drone is a layman terminology for UA.
- DigitalSky is a Ministry of Civil Aviation initiative, a highly secure and scalable platform which supports technology frameworks such as NPNT designed for enabling flight permission digitally and managing Unmanned Aircraft operations and traffic efficiently.
- If a NPNT compliant drone tries to breach geo-fencing (to go beyond the permissible boundary in the airspace), the in-built software will compel the drone to return-to-home (RTH). Drone flights in the green zone sites shall be compliant with the applicable conditions of Unmanned Aircraft System (UAS) Rules, 2021.
- Flying in the 'green-zones' require only intimation of the time and location of the flights.
- Permissions are required for flying in 'yellow zones' and flights are not allowed in the 'red zones'.

Unmanned Aircraft System (UAS) Rules, 2021:

- UAS categorised as airplane, rotorcraft and hybrid with further categorisation as remotely piloted aircraft, model remotely piloted aircraft and autonomous unmanned aircraft system.
- UA is classified as Nano, Micro, Small, Medium and Large unmanned aircraft based on the maximum all up weight.
- Mandatory for individuals and companies to obtain approval from the Directorate General of Civil Aviation (DGCA) to import, manufacture, trade, own or operate drones.
- No Permission- No Take-off (NPNT) policy adopted for all UAS except for those in the nano category. Micro and small UAS are not permitted from flying above 60m and 120m, respectively.
- UAS prohibited from flying in strategic and sensitive locations, including near airports, defence airports, border areas, military installations/facilities and areas earmarked as strategic locations/vital installations by the Ministry of Home Affairs.

- Research and development (R&D) organisations, including start-ups, authorised UAS manufacturers, any accredited recognised institution of higher education located in India, are permitted to carry out R&D of UAS only after obtaining authorisation from the DGCA.
- Penalties ranging between rupees ten thousand and one lakh for individuals, and for organisations, a 200, 300 and 400% of the amount specified for individuals, based on the size of the organisation.

27.40% of RTI Rejections did not cite Valid Reason, Says Analysis

Why in News?

- Central Information Commission's annual report on Right to Information (RTI) requests.

Highlights:

- The CIC's Annual Report covers more than 2,000 public authorities across the Central Government as well as the Union Territories.
- An analysis of CIC macro-data from Central ministries shows that the Home Ministry had the highest rate of rejections, as it rejected 20% of all RTIs received. The Agriculture Ministry's rejection rate doubled from 2% in 2018-19 to 4% in 2019-20. The Delhi Police and the Army also saw increases in rejection rates.
- The Centre has only rejected 4.3% of all Right to Information (RTI) requests in 2019-20, the lowest ever rate.
- However, almost 40% of these rejections did not include any valid reason, as they did not invoke one of the permissible exemption clauses in the RTI Act.
- This includes 90% of rejections by the Prime Minister's Office.
- In 38.7% of rejections in 2019-20, public authorities failed to cite permissible exemption clauses, and were classified under the 'Others' category in the CIC data. This is an increase from the 33% seen the previous year.

RTI Act:

- The Right To Information Act is one of the most important acts which empowers ordinary Citizens to question the Government and its Working. This has been widely used by citizens and media to uncover corruption, progress in Government work, Expenses related Information, etc. The RTI Act allows public authorities to reject RTI requests on a number of grounds, ranging from information that would endanger life and safety to that which involves irrelevant personal information, Cabinet papers, foreign governments, copyrights, or Sovereignty, Security and Intelligence Matters.

- Public authorities are expected to cite the relevant clause of the Act to invoke the Exemption.

28. Hate Crime

Why in News?

- The Supreme Court (SC) has recently quashed Hate Crime proceedings initiated against a Senior Journalist for a Facebook Post.

Highlights:

- Hate crime refers to Criminal acts which are motivated by bias against an individual or social group because of certain differences, majorly in their religious practices and customs.
- In contemporary times its meaning has proliferated beyond lynching, discrimination and offensive speeches and now encompasses speech that is insulting, derogatory or incites and violence. In Totality, Hate Crimes could be defined as an attack on a person's rights entrusted to him thereby affecting not only him but the social structure as a whole which in many ways makes it more heinous than many other Criminal Offences.
- Most common grounds of hate speech are race, ethnicity, religion or class.
- Hate Crime in India is defined in terms of the harm done to a community at large rather than an individual's right to freedom of speech and expression and the harm done as a result of hate speech. In India, hate speech is prohibited which is based upon religion, ethnicity, culture or race
- **Section 153a:** Promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony. It shall be punished with imprisonment which may extend to five years and shall also be liable to fine.
- **Section 505c:** With intent to incite, or which is likely to incite, any class or Community of persons to commit any offence against any other class or Community.
- It shall be punished with imprisonment which may extend to three years, or with fine, or with both.

Indian Laws Against Hate Crimes:

- Though the term is nowhere mentioned in any statute, its different forms are identified across the laws. The IPC under Sections 153A, 153B, 295A, 298, 505(1) and 505(2) declares that word, spoken or written, that promotes disharmony, hatred, or insults on basis of religion, ethnicity, culture, language, region, caste, community, race etc., is Punishable Under Law.

4. SCIENCE & TECHNOLOGY

1. Spectrum Auction 2021

Why in News?

- The long-delayed spectrum auction for 4G airwaves, where the government is putting on offer frequencies in the 700, 800, 900, 1,800, 2,100, 2,300, and 2,500 MHz bands, began recently, while 5G airwaves were not included in this auction.

What is Spectrum?

- Spectrum is a range of radio waves used for communication purposes. It would include FM and AM radio broadcasts too and Wi-Fi or Bluetooth.
- With Spectrum come frequency. Frequency is the number of repetitions of the wave that one can see in a period.
- This means is a wave repeat slowly, it is low frequency and if it repeats more times in a period, it would be referred to as high frequency.
- Thus, spectrum refers to the waves that surround us and can pass through anything. This means it needs to be regulated also which is why they are divided into bands.
- If left at any frequency, there would be a complete chaos and the interference would be amplified. Thus, band division is helpful.
- Various ranges of telecom spectrum start from 800MHz and goes up to 2300 MHz
 - ✓ The radio channels are spread between 100-200 Megahertz.
 - ✓ Wi-Fi used 2.4 GHz earlier and shifted to 5 GHz now.
- Most commonly we use 800 MHz, 900 MHz, 1800 MHz, 2100 MHz and 2300 MHz in cellular communication.
- This is why various standards like GSM, WCDMA and LTE were developed over time to use these bands.

What are Spectrum Auctions?

- A spectrum auction is a process whereby a government uses an auction system to sell the rights to transmit signals over specific bands of the electromagnetic spectrum and to assign scarce spectrum resources. Devices such as cell phones and wireline telephones require signals to connect from one end to another. These signals are carried on airwaves, which must be sent at designated frequencies to avoid any kind of interference.
- The Union government owns all the publicly available assets within the geographical boundaries of the country, which also include airwaves.

- With the expansion in the number of cell phones, wireline telephone and internet users, the need to provide more space for the signals arises from time to time.
- To sell these assets to companies willing to set up the required infrastructure to transport these waves from one end to another, the central government through the DoT auctions these airwaves from time to time.
- These airwaves are called spectrum, which is subdivided into bands which have varying frequencies.
- All these airwaves are sold for a certain period of time, after which their validity lapses, which is generally set at 20 years.

Who are Eligible to Bid the Spectrum?

- All three private telecom players, Reliance Jio Infocomm, Bharti Airtel, and Vi are eligible contenders to buy additional spectrum to support the number of users on their network.
- Apart from these three, new companies, including foreign companies, are also eligible to bid for the airwaves.
 - ✓ Foreign companies, however, will have to either set up a branch in India and register as an Indian company, or tie up with an Indian company to be able to retain the airwaves after winning them.
- 5G airwaves are not for sale in this Auction.

What are the Main Objectives of the Sale?

- To obtain a market-determined price for the Spectrum on Offer
- Ensure efficient use of spectrum and Avoid Hoarding
- Stimulate competition in the sector and Maximise Revenue Proceeds.

What are the Features of 5G Technology?

- **Millimetre wave spectrum:** The 5G networks will operate in the millimetre wave spectrum (30-300 GHz) which have the advantage of sending large amounts of data at very high speeds because the frequency is so high, it experiences little interference from surrounding signals.
- **Upgraded LTE:** 5G is the latest upgrade in the long-term evolution (LTE) mobile broadband networks.
- **Internet speed:** In the high-band spectrum of 5G, internet speeds have been tested to be as high as 20 Gbps (gigabits per second) as compared to the maximum internet data speed in 4G recorded at 1 Gbps.

- 5G network speeds should have a peak data rate of 20 Gb/s for the downlink and 10 Gb/s for the uplink.
- **Bands in 5G:** 5G mainly work in 3 bands, namely low, mid and high frequency spectrum – all of which have their own uses as well as limitations.
 - ✓ **Low band spectrum:** It has shown great promise in terms of coverage and speed of internet and data exchange however the maximum speed is limited to 100 Mbps (Megabits per second).
 - ✓ **Mid-band spectrum:** It offers higher speeds compared to the low band, but has limitations in terms of coverage area and penetration of signals.
 - ✓ **High-band spectrum:** It has the highest speed of all the three bands, but has extremely limited coverage and signal penetration strength.

What are the Hurdles in Rolling Out 5G Technology?

- **Enabling critical infrastructures:** 5G will require a fundamental change to the core architecture of the communication system. The major flaw of data transfer using 5G is that it can't carry data over longer distances. Hence, even 5G technology needs to be augmented to enable infrastructure.
- **Financial liability on Consumers:** For transition from 4G to 5G technology, one has to upgrade to the latest cellular technology, thereby creating financial liability on consumers.
- **Capital Inadequacy:** Lack of flow of cash and adequate capital with the suitable telecom companies (like Bharti Airtel and Vodafone Idea) is delaying the 5G Spectrum Allocation.

2. Power Transmission Cable

Why in News?

- The researchers at IIT Madras have recently demonstrated that power transmission cable can be monitored by using Raman Thermometry on the Fibre Optic Cable.

About Raman Thermometry:

- It is a thermal characterization technique which makes use of Raman scattering phenomena to determine the local temperature in microelectronics systems.
- When light is scattered off an object, say a molecule, two bands are observed, with higher and lower frequency than the original light, called the Stokes and anti-Stokes bands, respectively.
- By studying the relative intensity of the two bands, it is possible to estimate the temperature of the object which scatters the light.

- The anti-Stokes component of Raman scattering is strongly dependent on the temperature that the material is subjected to. Thus, by measuring the intensity of the anti-Stokes scattered light we can estimate the temperature.
- Any current flowing through a conductor would cause a temperature rise due to the Joule heating effect. Hence the flow of current through the power cables results in heating of the power cables.
- Joule heating (also referred to as resistive or ohmic heating) describes the process where the energy of an electric current is converted into heat as it flows through a resistance.

Optical Fibre Technique:

- The temperature measurement of wires is performed in not just one location, but in a distributed manner using an optical fibre. To achieve this, a pulse of light is launched into the optical fibre and the backscattered radiation is observed.
- Optical fibres are fabricated with high quality composite glass/quartz fibres.
- Each fibre consists of a core (denser) and cladding (rarer).
- When a signal in the form of light is directed at one end of the fibre at a suitable angle, it undergoes repeated total internal reflections along the length of the fibre and finally comes out at the other end.
- Total internal reflection is complete reflection of a ray of light within a medium such as water or glass from the surrounding surfaces back into the medium.
- Since light undergoes total internal reflection at each stage, there is no appreciable loss in the intensity of the light signal.
- The time of flight of the backscattered radiation provides an estimate of the distance from which the light is backscattered.
- Backscattering (or backscatter) is the reflection of waves, particles, or signals back to the direction they came from.
- This constitutes a distributed measurement as the pulse propagates all along the length of fibre.
- This can go up to tens of kilometers.

Significance:

- **Actual Temperature Measurements:**
 - ✓ The use of Raman thermometry technique allows the operators to get the results for actual temperature measurements over tens of kilometres.

Economic and Real-Time:

- Alternative methods of measuring the temperature of power cables include using a thermal camera which is cumbersome. The present method devised by the team is both economical and provides real-time information.
- Thermal cameras detect temperature by recognizing and capturing different levels of infrared light.
- They achieved this by using the optical fibres that are already embedded in the power cables for establishing optical communication.

Raman Effect:

- The Raman Effect or Raman Scattering is a phenomenon in spectroscopy discovered by the eminent physicist Sir Chandrasekhara Venkata Raman in 1928.
- In 1930, he got a Nobel Prize for this remarkable discovery and this was the first Nobel Prize for India in the Field of Science.
- The Raman Effect is a change in the wavelength of light that occurs when a light beam is deflected by molecules. When a beam of light traverses a dust-free, transparent sample of a chemical compound, a small fraction of the light emerges in directions other than that of the incident (incoming) beam.
- Most of this scattered light is of unchanged wavelength. A small part, however, has wavelengths different from that of the incident light; its presence is a result of the Raman Effect.

4.1. SCIENCE & TECHNOLOGY SNIPPETS

1. 'Radio-Loud' Quasar

Why in News?

- Recently, an international team of astronomers has discovered the most distant 'Radio-Loud' Quasar with the help of European Southern Observatory's Very Large Telescope (ESO's VLT).

Key Points

- **Quasars:**
- Quasars are very luminous objects in faraway galaxies that emit jets at radio frequencies.
- The word quasar is short for "quasi-stellar radio source".

- The name, which means star-like emitters of radio waves, was given in the 1960s when quasars were first detected.
- The name is retained today, even though astronomers now know most quasars are faint radio emitters. In addition to radio waves and visible light, quasars also emit ultraviolet rays, infrared waves, X-rays, and gamma-rays.
- Most quasars are larger than our solar system. A quasar is approximately 1 kiloparsec in width.
- They are only found in galaxies that have supermassive blackholes which power these bright discs. Black hole refers to a point in space where matter is so compressed as to create a gravity field from which even light cannot escape.
- Most active galaxies have a supermassive black hole at the centre which sucks in surrounding objects. Quasars are formed by the energy emitted by materials swirling around a blackhole right before being sucked into it.
- They are further categorised into the "radio-loud" and the "radio-quiet" classes.

Radio-loud:

- They are with powerful jets that are strong sources of radio-wavelength emission.
- These make up about 10% of the Overall Quasar Population.

Radio-quiet:

- They are those quasars lacking powerful jets, with relatively weaker radio emission than the radio-loud population.
- The majority of quasars (about 90%) are radio-quiet.
- Recently Discovered Quasar/P172+18:
 - Named P172+18, the quasar emitted wavelengths which had a redshift of 6.8.
 - It took 13 billion years for the quasar's light to reach earth.
 - This particular quasar appears to the scientists as it was when the universe was just around 780 million years old.
 - The glowing disc around a blackhole is 300 million times more massive than our Sun.
 - It is also one of the fastest accreting quasars, which means it is accumulating objects from the galaxy at an enormous speed.
 - Only three other 'radio-loud' sources with redshift greater than six have been discovered so far and the most distant one had a redshift of 6.18.
 - The higher the redshift of the radio wavelength, the farther away is the source.

Inference:

- The blackhole at its Centre is consuming from its Galaxy at a Stunning Rate.

Significance:

- A detailed study of these 'radio-loud' super bright objects can lead astronomers to understanding how the supermassive blackholes in their core grew to be as big so rapidly since the Big Bang.
- It also holds clues about the Ancient Star Systems and Astronomical Bodies.

About the ESO's VLT:

- The Very Large Telescope used to observe the P172+18 is located at Paranal Observatory in the Atacama Desert.
- The four Unit Telescopes boast 8.2-meter (27 feet) mirrors.
- Just one of these instruments can spot objects that are 4 billion times fainter than what can be seen with the unaided eye.
- According to the European Southern Observatory, the Very Large Telescope is the world's most advanced optical telescope.

Redshift

- Gravitational redshift occurs as particles of light (photons) climb out of a gravitational well like a black hole and the light's wavelength gets drawn out. This shifts the wavelength to the red part of the light spectrum - hence "redshift".
- In order to escape intense gravity, particles of light (photons) must expend Energy.
- However, at the same time, these photons must travel at a constant speed - the speed of light.
- Therefore, the photons can't lose energy by slowing down but must Expend it in another way.
- This lost energy manifests itself as a shift towards the red end of the Light Spectrum.

2. Fifth Science Policy

Why in News?

- From the report published by the National Science Foundation of the U.S. in December 2019, India was the third-largest publisher of peer-reviewed science and engineering journal articles and conference papers, with 135,788 articles in 2018.

- This milestone was achieved through an average yearly growth rate of 10.73% from 2008, which was greater than China's 7.81%.

Highlights:

- **Scientific Publication from India and Issues with it**
 - ✓ China and the United States had about thrice and twice the number, respectively, of India's publications.
 - ✓ Also, the publications from India are not impactful.
 - ✓ From the report, in the top 1% of the most cited publications from 2016 (called HCA, or Highly Cited Articles), India's index score of 0.7 is lower than that of the U.S., China and the European Union.
 - ✓ An index score of 1 or more is Considered Good.
 - ✓ The inference for India is that the impact, and hence the citation of publications from India, should Improve.

Patents Filed by India:

- The World Intellectual Property Organization (WIPO) through their Patent Cooperation Treaty (PCT) is the primary channel of filing international patent applications.
- In its report for 2019, WIPO says India filed a modest number of 2,053 patent applications.
- Compared to the 58,990 applications filed by China and 57,840 by the U.S., India has a long way to go.
- The Indian Government put in place the National Intellectual Property Rights (IPR) Policy in 2016 to "stimulate a dynamic, vibrant and balanced intellectual property rights system".
- One of the objectives is human capital development.
- The mission to foster innovation, replicate it at scale and commercialise it is a work in progress consequent to the policy.

India's Science Policies:

- There have been four science policies till now, after 1947, with the draft of the fifth policy having been released recently.
- India's first science policy adopted in 1958.
- It led to the establishment of many research institutes and national laboratories, and by 1980.
- The focus in the second science policy, Technology Policy Statement, in 1983, was technological self-reliance and to use technology to benefit all sections of the society.

- The Science and Technology Policy 2003, the first science policy after the economic liberalisation of 1991, aimed to increase investment in research and development and brought it to 0.7%.
- The Scientific and Engineering Research Board (SERB) was established to promote research.
- In 2013, India's science policy included Innovation in its scope and was called Science, Technology and Innovation Policy.
- The focus was to be one of the top five global scientific leaders, which India achieved.

What 5th Science Policy seeks to Achieve:

- The draft of the Science, Technology and Innovation Policy 2020 (STIP2020) has an ambitious vision to “double the number of full-time equivalent (FTE) researchers, Gross Domestic Expenditure on R&D (GERD) and private sector contribution to the GERD every 5 years” .
- It also aims to “position India among the top three scientific superpowers in the next decade”.
- It also defines strategies to improve funding for and participation in research. India's Gross Domestic Expenditure on R&D (GERD) is currently around 0.6% of GDP.
- This is quite low when compared to the investments by the U.S. and China which are greater than 2% and Israel's GERD is more than 4%.
- The policy seeks to define strategies that are “decentralized, evidence-informed, bottom-up, experts-driven, and inclusive”.

Solutions to Improve Funding

- STIP2020 defines solutions to improve funding thus: all States to fund research, multinational corporations to participate in research, fiscal incentives and support for innovation in medium and small scale enterprises.
- The new measures should not become a pretext to absolve the Union and State governments of their primacy in funding research; the government should invest more into research.
- **Other Critical Focus Areas:**
 1. Other critical focal areas are inclusion of under-represented groups of people in research.
 2. Support for indigenous knowledge systems.
 3. Using artificial intelligence.
 4. Reaching out to the Indian scientific diaspora for collaboration.
 5. Science diplomacy with partner countries.

6. Setting up a strategic technology development fund to give impetus to research.

3. Exercise Desert Flag-VI

Why in News?

- The Indian Air Force (IAF) has recently participating in the Exercise Desert Flag-VI, hosted by the United Arab Emirates (UAE) Air Force.

Highlights:

- It is an annual multinational large force employment warfare exercise hosted by the UAE Air Force.
- It aim is to provide operational exposure to the participating forces while training them to undertake simulated air combat operations in a controlled environment.
- It is about a three week long exercise scheduled from 3rd - 27th March 2021 at Al-Dhafra air base, UAE. The air forces of the UAE, India, United States of America, France, Saudi Arabia, South Korea and Bahrain.
- The IAF is participating with six Su-30 MKI, two C-17 Globemasters and one IL-78 tanker Aircraft.
- With the UAE, India has In-UAE BILAT (bilateral naval exercise) as well as Desert Eagle-II (bilateral Air Force Exercise).

4. Solid Fuel Ducted Ramjet (SFDR) technology

Why in News:

- Recently, the Defence Research and Development Organisation (DRDO) has successfully conducted the test of the Solid Fuel Ducted Ramjet (SFDR) technology, which is crucial for the indigenous development of long range air-to-air missiles.

Highlights:

- It is a missile propulsion system based on the concept of Ramjet Engine principle.
- The system utilises a solid fuelled air-breathing ramjet engine.
- Unlike solid-propellant rockets, the Ramjet takes up oxygen from the atmosphere during flight. Thus, it is light in weight and can Carry More Fuel.
- DRDO began developing SFDR first in 2017 and had conducted successful tests in 2018 and 2019 as well.
- The Successful demonstration of SFDR technology will enable DRDO to develop indigenous long range air-to-air missiles.

- At present, such technology is available only with a handful of countries in the world.
- Air-to-air missiles which use SFDR technology can achieve longer ranges as they do not require oxidisers (take oxygen from the atmosphere).
- The missile based on SFDR fly at supersonic speeds and high manoeuvrability ensures the Target Aircraft Cannot Get Away.

About Defence Research and Development Organisation:

- It works under the Administrative control of the Ministry of Defence, Government of India.
- It is working to establish a world class science and technology base for India and provides Defence Services decisive edge by equipping them with internationally competitive systems and solutions.
- It was established in 1958 after combining Technical Development Establishment (TDEs) of the Indian Army and the Directorate of Technical Development & Production (DTDP) with the Defence Science Organisation (DSO).
- It is responsible for carrying out Integrated Guided Missile Development Programme (IGMDP).
- Ramjet is a form of air-breathing jet engine that uses the vehicle's forward motion to compress incoming air for combustion without a rotating compressor. It work most efficiently at supersonic speeds but they are not efficient at hypersonic speeds.
- Integrated Guided Missile Development Programme was the brainchild of renowned scientist Dr. APJ Abdul Kalam.
- It was intended to attain self-sufficiency in the field of missile technology.
- After keeping in mind the requirements of various types of missiles by the defense forces, the program recognized the need to develop five missile systems.

5. Technology and Innovation Report, 2021

Why in News?

- According to UNCTAD's Technology and Innovation Report 2021, India is the greatest outperformer among developing countries to use, adopt and adapt frontier technologies than their per capita GDPs.

Technology and Innovation Report, 2021:

- The report critically examines the possibility of frontier technologies such as AI, robotics, and gene-editing widening existing inequalities and creating new ones.

Forging ahead at the digital frontiers

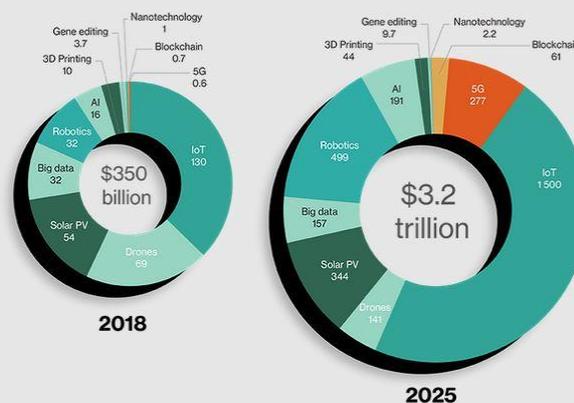
This report covers 11 frontier technologies:



As a group, these 11 technologies already represent a \$350-billion market, which by 2025 could grow to over \$3.2 trillion

Only a few countries currently create frontier technologies, but all countries need to prepare for them. To assess national capabilities to equitably use, adopt and adapt these technologies the Technology and Innovation report 2021 has developed a 'readiness index.' The index comprises five building blocks: ICT deployment, skills, R&D activity, industry activity and access to finance.

In general, the economies most ready are in Northern America and Europe while those least ready are in sub-Saharan Africa.



What are Frontier Technologies?

- Frontier technologies include AI, IoT, big data, blockchain, fifth-generation mobile telephony, 3D printing, robotics, drones, gene-editing, nanotechnology, and solar power — the ones that take advantage of digitalization and connectivity.
- Frontier technologies are essential for sustainable development, but they also could Accentuate Initial Inequalities.

Country-Readiness Index:

- The country-readiness index released by the United Nations Conference on Trade and Development (UNCTAD) under this report.
- The index analyzed the progress of countries in using frontier technologies, considering their national capacities related to physical investment, human capital, and technological effort.

India's Performance:

- India's actual index ranking was 43, while the estimated one based on per capita income was 108.
- This meant that India overperformed other countries by 65 ranking positions.
- It was followed by the Philippines, which overperformed by 57 ranking positions.

Global Performance:

- China was at position 25; both India and China performed well in research and development.

- This was reflective of their abundant supplies of qualified and highly skilled human resources available at a comparatively low cost.
- The Philippines has a high ranking for the industry—because of high levels of foreign direct investment in high-technology manufacturing, especially electronics.
- The United States, Switzerland, and the United Kingdom were “best prepared” for frontier technologies, the report highlighted.
- Most of the best-prepared countries are from Europe, except the Republic of Korea, Singapore, and the United States. Some transition economies, such as Russia, also perform well on the index.

Major Takeaways of the Report:

- The report urges all developing nations to prepare for a period of deep and rapid technological change that will profoundly affect markets and societies.
- Developing countries should align science, technology, and innovation policies with Industrial Policies. New technologies can re-invigorate traditional production sectors and speed up industrialization and economic structural transformation.
- It is up to Policymakers to reduce this risk and make frontier technologies contribute to increasing equality, says the report.
- Low-and middle-income developing countries and the least developing countries cannot afford to miss the new wave of rapid technological change.

6. NASA-ISRO Synthetic Aperture Radar (NISAR)

Why in News?

- Indian Space Research Organisation (ISRO) has completed the development of a Synthetic Aperture Radar (SAR).

NASA-ISRO SAR:

- NISAR is a joint collaboration for a dual-frequency L and S-band SAR for earth observation.
- NASA and Bengaluru-headquartered ISRO signed a partnership on September 30, 2014, to collaborate on and launch NISAR.
- The mission is targeted to launch in early 2022 from ISRO’s Sriharikota spaceport in Andhra Pradesh’s Nellore district, about 100km north of Chennai.
- It is capable of producing extremely high-resolution images for a joint earth observation satellite mission with NASA.

- It will be the first satellite mission to use two different radar frequencies (L-band and S-band) to measure changes in our planet's surface less than a centimetre across.

Objectives of the NISAR:

- NISAR will observe Earth's land and ice-covered surfaces globally with 12-day regularity on ascending and descending passes, sampling Earth on average every six days for a baseline three-year mission.
- It will measure Earth's changing ecosystems, dynamic surfaces and ice masses, providing information about biomass, natural hazards, sea-level rise and groundwater, and will support a host of other applications.
- It would also provide data on natural hazards including earthquakes, tsunamis, volcanoes and landslides.

What are L and S Bands?

- L band waves are used for GPS units because they are able to penetrate clouds, fog, rain, storms, and vegetation.
- The S-band is used by airport surveillance radar for air traffic control, weather radar, surface ship radar, and some communications satellites, especially those used by NASA to communicate with the Space Shuttle and the International Space Station.
- NISAR uses a sophisticated information-processing technique known as SAR to produce extremely high-resolution images. Radar penetrates clouds and darkness, enabling NISAR to collect data day and night in any weather.

What is Collaboration?

- NASA is providing the mission's L-band SAR, a high-rate communication subsystem for science data, GPS receivers, a solid-state recorder and payload data subsystem.
- ISRO is providing the spacecraft bus, the S-band radar, the launch vehicle and associated launch services for the mission, whose goal is to make global measurements of the causes and consequences of land surface changes using advanced radar imaging.

7. Air Independent Propulsion (AIP) System

Why in News?

- Recently, the Defence Research and Development Organisation (DRDO) has conducted the Final Development test of Air Independent Propulsion (AIP) System, Crucial for Diesel Electric Submarines.

Highlights:

- The conventional submarines use diesel-electric engines, which require them to surface almost daily to get atmospheric oxygen for fuel combustion.
- If fitted with an Air Independent Propulsion (AIP) system, the submarine will need to take in oxygen only once a week.
- The indigenously-developed AIP, which is one of the key missions of the Naval Materials Research Laboratory (NMRL), is considered one of the ambitious projects of the DRDO for the Navy.
- The project aims at fitting the technology on India's Scorpene class submarine INS Kalvari around 2023.
- The AIP system based submarines will be required to surface much less frequently, thus increasing their lethality and stealth manifold.
- Diesel-electric submarines require them to come to the surface frequently to charge their batteries, thus their underwater endurance time is less.
- 'Air-independent' propulsion technology helps to make the diesel generator less dependent on surface air.
- While there are different types of AIP systems being pursued internationally, fuel cell-based AIP of NMRL is unique as the hydrogen is generated onboard.

About Fuel Cell Based AIP system:

- It is an electrolytic fuel cell releases energy by combining hydrogen and oxygen, with only water as the waste Product Ensuring Less Marine Pollution.
- The cells are highly efficient, and do not have moving parts, thus ensuring that the Submarine has a low Acoustic Emissions of Sound.

8. Dustlik-2

Why in News?

- Recently, the Second Edition of India-Uzbekistan joint military exercise "Dustlik-2" started in Chaubatia, Uttarakhand.

Highlights:

- It is a Counter Insurgency (CI) and Counter Terrorism (CT) operations in mountainous, rural and urban scenarios under the United Nations (UN) mandate.
- It took place in Tashkent, Uzbekistan in November 2019.

- Uzbekistan is important to India for security and connectivity to the Central Asian region and also Iran, it is also one alternative India has with respect to Afghanistan.
- Security concerns stemming from the conflict in Afghanistan is one of the major challenges for India's Involvement in Central Asia.

9. Vaccine Passports

Why in News?

- Recently, the Governments around the world are exploring the potential use of vaccine passports as a way of reopening the economy by identifying those protected against the Coronavirus.

Highlights:

- It is an e-certificate that stores and Records jabs and Covid-19 test status.
- It can be kept in a smartphone app or in other digital formats.
- Its contents can be flashed at security checkpoints when people travel across borders.
- The idea is modelled on the proof of vaccination that several countries required even before the pandemic. Travellers from many African countries to the USA or India are required to submit proof that they have been vaccinated against diseases such as yellow fever.
- In February 2021, Israel became the first country to introduce a certification system that allows those who have been vaccinated against Covid-19 to access certain facilities and events. It will digitise Vaccination Records Across Countries.
- It is supposed to function as proof that the holder has been vaccinated against Covid-19 and is, therefore, safe.

Potential Beneficiary of the Vaccine Passports:

- The primary benefit will be to the tourism and the hospitality industries, which are both seen as being at the heart of Covid-19 spread and are the worst hit by the pandemic.
- The International Air Travel, which suffered massively because of the outbreak.
- **Similar Initiative:** Several associations and non-profits have been issuing their own versions for international travel:
- **IATA Travel Pass:** The global trade body representing airlines (The International Air Transport Association) is developing an app called IATA Travel Pass that will provide airlines and other aviation industry stakeholders with a common platform to check for the proof of Vaccination and its validity.

- **CommonPass:** Non-profit Commons Project has been trying out an app called CommonPass, which contains a passenger's vaccination record.
- Concerns Raised in Instituting Vaccine Passport:

10.INS Karanj

Why in News?

- Indian Navy's third stealth Scorpene class (of Project-75) Submarine INS Karanj has Recently been Commissioned at the Naval Dockyard Mumbai.

Highlights:

- The previous INS Karanj (a Russian-origin submarine) was commissioned in 1969, at Riga in the erstwhile USSR. It had served the nation for 34 years up to 2003.
- The new INS Karanj would form part of the Western Naval Command's Submarine fleet.
- The ship's name, Karanj, is believed to be derived from the Karanja island (also known as Uran Island), a town in Raigad district, which lies in the south-east of Mumbai Harbour.
- The Indian Navy has its base at Uran near Navi Mumbai.

About Project 75:

- It is a programme by the Indian Navy that entails building six Scorpene Class attack submarines.
- It is given support by the Department of Defence Production (Ministry of Defence) and Indian Navy throughout its various phases of construction.
- The Mazagon Dock limited (MDL) is manufacturing six Scorpene submarines with technology assistance from Naval Group of France under a USD 3.75 bn deal signed in October 2005.
- MDL is one of the leading shipbuilding yards and only submarine builder in India.
- The other Submarines of the Ongoing Project-75 are
 - ✓ Two submarines, Kalvari and Khanderi, have been commissioned into the Indian Navy.
 - ✓ The fourth Scorpene, Vela, has commenced its sea trials.
 - ✓ The fifth Scorpene 'Vagir' was launched in November 2020.
 - ✓ The sixth and last submarine, Vagsheer, is being readied for boot together.

About Scorpene Class Submarines:

- The submarines in the Project-75 Scorpene Class are powered by diesel-electric propulsion systems.

- It is one of the most sophisticated submarines, capable of undertaking multifarious missions including anti-surface ship warfare, anti-submarine warfare, intelligence gathering, mine laying, and area surveillance.
- It is a conventional powered submarine (diesel-electric) weighing 1,500 tonnes and can go up to depths of 300m. It is the Navy's first modern conventional submarine series in almost two decades since INS Sindhusashtra, procured from Russia in July 2000.
- The Navy is looking to install Air Independent Propulsion (AIP) modules on all the Scorpene submarines to enhance endurance.

11. Genome Mapping of the Indian Ocean

Why in News?

- A team of scientists and researchers from the National Institute of Oceanography (NIO) onboard its research vessel Sindhu Sadhana will work on a research project to reveal the internal working of the body of the ocean at a cellular level.

Genome Mapping of the Indian Ocean:

- The first-of-its-kind research project in the country is aimed at understanding the biochemistry and the response of the ocean to climate change, nutrient stress and increasing pollution.
- The researchers will collect samples from various stretches of the ocean at an average depth of about 5 km.
- Just like gene mapping is carried out on blood samples collected from humans, the scientists will map these in the bacteria, microbes found in the ocean.
- The mapping of the Deoxyribonucleic acid (DNA) and Ribonucleic acid (RNA) will show the nutrients present in them, and also those lacking in different parts of the ocean.

Objectives of the Mission:

- This project will help scientists understand the internal working of the ecosystem of the Indian Ocean.
- The research will enable scientists to identify the factors controlling the changes in RNA, DNA in the oceans, and various stressors impacting them.
- The ocean has several micronutrients like nitrates, sulphates and silicates, minerals like iron ore and zinc, and trace metals like cadmium or copper.
- The Genome mapping will show the presence of which these microbes have adapted to, in addition to their reaction to atmospheric carbon dioxide.

- This will help in identifying which part of the ocean has a greater concentration of which mineral or element.
- Scientists will then use these as tracers to tackle the causative factors for excess or lack of a certain mineral or element and suggest possible solutions for their mitigation.
- In addition, the large pool of RNA, DNA library of the oceans will be utilized for using the Indian Ocean for human benefit in the future.

Studying the interactions of Trace Metals

- Trace metals are the metals subset of trace elements; that is, metals normally present in small but measurable amounts in animal and plant cells.
- Trace metals like cadmium or copper are supplied to oceans via continental run-offs, atmospheric deposition, hydrothermal activities and continental shelf interaction.
- They are essential for ocean productivity for having a holistic understanding of nutrient cycling and productivity of the oceans.
- Isotopic forms of trace metals can be utilized to track the movement of water masses responsible for ocean circulation and as tools to study the Biological, Geochemical and Ecosystem Processes and food Web Analyses.

12. Lunar Polar Exploration (LUPEX) Mission

Why in News?

- India and Japan are working together on a joint lunar polar exploration (LUPEX) mission that aims to send a lander and rover to the Moon's the South Pole around 2024.

LUPEX Mission:

- The LUPEX is a robotic lunar mission concept by the Indian Space Research Organisation (ISRO) and Japan Aerospace Exploration Agency (JAXA).
- It would send a lunar rover and lander to explore the South Pole region of the Moon in 2024.
- JAXA is likely to provide the under-development H3 launch vehicle and the rover, while ISRO would be responsible for the lander.
- The mission concept has not yet been formally proposed for funding and planning.
- The Lunar Polar Exploration mission would demonstrate new surface exploration technologies related to vehicular transport and lunar night survival for sustainable lunar exploration in Polar Regions.

13. Asteroid 2001 F032

Why in News?

- Recently, the National Aeronautics and Space Administration (NASA) has predicted that the asteroid '2001 F032' is the largest to pass by Earth in 2021.

Highlights:

- It was discovered 20 years ago and ever since the scientists have been tracking its orbital path around the Sun very accurately.
- It was discovered in March 2001 by the Lincoln Near-Earth Asteroid Research (LINEAR) program in Socorro, New Mexico.
- 1998 OR2 was the last notably large asteroid that passed close to earth on 29th April, 2020. While 2001 F032 is somewhat smaller than 1998 OR2, it will be three times nearer to Earth.
- Orbit: It is in a highly eccentric orbit around the Sun. It completes one orbit every 810 days (about 2¼ years). The orbit is tilted 39° to Earth's orbital plane.
- This orbit takes the asteroid closer to the Sun than Mercury, and twice as far from the Sun as Mars.
- The asteroid will pass by at about 1,24,000 kph. It is faster than the speed at which most asteroids encounter Earth.
- The reason for the asteroid's unusual speed is its close approach to the earth.
- The near-Earth asteroid will make its closest approach at a distance of about 2 million kilometers or 5 1/4 times the distance from Earth to the Moon.
- The distance is close in astronomical terms, that's why it has been designated a "potentially hazardous asteroid".
- There is no threat of a collision with our planet now or for centuries to come.
- Next Close Approach: The asteroid will not come this close to Earth again until 2052, when it will pass by at about seven lunar distances, or 2.8 million km.
- It will provide an opportunity for astronomers to get a more precise understanding of the asteroid's size and albedo (i.e. how bright, or reflective, its surface is), and a rough idea of its composition.
- When sunlight hits an asteroid's surface, minerals in the rock absorb some wavelengths while reflecting others. By studying the spectrum of light reflecting off the surface, astronomers can measure the chemical "fingerprints" of the minerals on the surface of the asteroid.

14. Martian 'Blueberries'

Why in News?

- In 2004, NASA's Mars exploration rover 'Opportunity' found several small spheres on the planet, informally named Martian blueberries which find a resemblance to the similar formation in India's Kutch region.

Martian Blueberries:

- Opportunity's mini spectrometers studied mineralogy and noted they were made of iron Oxide Compounds called Haematites.
- This caused excitement, as the presence of haematites suggests that there was water present on Mars.
- The widely accepted formation mechanism of hematite concretion [hard solid mass] is precipitation from aqueous fluids.
- Hematite is known to form in oxidizing environments hence it can be inferred that water must have played a crucial role in the formation of grey hematite on Mars.

What Makes them so Special?

- Indian researchers have been studying hematite concretions in Kutch called the Jhuran formation. These Formations are 145 and 201 Million Years Old.
- Detailed Geochemistry and Spectroscopic investigations of the haematite concretions in this area revealed that they resemble the ones on Mars.
- They have similar morphology – spherical, often doublet and triplet – and similar mineralogy – a mixture of haematite and goethite.
- Hence, several types of research have shown that the Kutch area is a potential Martian Analogue Locality.

15. Responsible AI – the need for ethical guard rails

Why in News?

- The article talks about the need for adequate safeguards while applying artificial intelligence (AI), failing which, social and economic schisms could be widened, leading to Discriminatory Outcomes.

AI's Growth:

- The use of Artificial Intelligence has seen exponential growth.
- And the more AI is used, the more data is generated, and the smarter it gets.

- In just the last decade, AI has evolved with unprecedented velocity.
- Automation, big data and algorithms will continue to sweep into new corners of our lives.
- AI has immense potential. Just as electricity enabled us to radically alter virtually every aspect of existence, AI can leapfrog us toward eradicating hunger, poverty and disease — opening up new and unimaginable pathways for climate change mitigation, education and Scientific Discovery.

AI's Potential:

- AI has helped increase crop yields, raised business productivity, improved access to credit and made cancer detection faster and more precise.
- It could contribute more than \$15 trillion to the world economy by 2030 adding 14% to global GDP.
- Google has identified over 2,600 use cases of “AI for good” worldwide.
- A study reviewing the impact of AI on the Sustainable Development Goals (SDGs) finds that AI may act as an enabler on 79% of all SDG targets. On the flip side, it states that AI can actively hinder 35% of SDG targets.

Concerns:

- AI requires massive computational capacity, which means more power-hungry data centres and a big carbon footprint.
- Robotics and AI companies are building intelligent machines that perform tasks typically carried out by low-income workers, but the day is not far when many desk jobs will also be edged out by AI. Without clear policies on reskilling workers, the promise of new opportunities will in fact create serious new Inequalities.
- Investment is likely to shift to countries where AI-related work is already established, widening gaps among and within countries.
- Without adequate safeguards, AI would exacerbate existing problems.
- There have been AI facial recognition and surveillance technology discriminating against people of colour and minorities.
- Also, an AI-enhanced recruitment engine, based on existing workforce profiles, taught itself that male candidates were preferable to female.
- AI also presents serious data privacy concerns. The algorithm's never-ending quest for data has led to our digital footprints being harvested and sold without our knowledge or informed consent.

Need for Safeguards:

- Without ethical guard rails, AI will widen social and economic schisms, amplifying any innate biases at an irreversible scale and rate and lead to discriminatory outcomes.
- It is neither enough nor is it fair to expect AI tech companies to solve all these challenges through self-regulation. They are not alone in developing and deploying AI; governments also do so.

16. Black Hole

Why in News?

- Recently, Scientists have discovered the first moving supermassive black hole whose mass is about three million times that of our Sun.

Highlights:

- The black hole was travelling within its own galaxy (J0437+2456) which is around 228 Million Light Years away from Earth.
- Scientists studied 10 faraway galaxies with supermassive black holes in the centre, expecting them to have the same velocity as that of the galaxies they reside in.
- Focus of their study was the water in the accretion disk (the spiralling mass around a supermassive black hole made of matter that is eventually ingested by the black hole).
- As the water circles around the black hole before falling into it like liquid in a sink, it produces a laser-like beam of radio light known as a maser. These masers can tell the velocity of black holes very accurately.

Moving Black Hole:

- Of the 10 black holes they studied, only the one at the center of J0437+2456 was unusual. It was not moving at the same velocity as its home galaxy.
- Besides the empirical evidence, the enormous size of these black holes had led people to imagine them to be stationary objects planted in the middle of galaxies as opposed to objects floating around in space. It is moving with a speed of about 1,10,000 miles per hour inside its galaxy. Two Supermassive Black Holes Merging: Scientists might have spotted the resulting black hole moving in a rearward motion after the merger before settling down in a position.
- One in a Binary System of Black Holes, where not one but two supermassive black holes might exist within the host galaxy held together by a shared centre of gravity, which they might be orbiting.

- The twin of the newly-discovered wandering black hole might not be emitting masers, keeping it from being detected by the radio antenna network.

Black Hole:

- It refers to a point in space where the matter is so compressed as to create a gravity field from which even light cannot escape.
- The concept was theorized by Albert Einstein in 1915 and the term 'black hole' was coined in the mid-1960s by American physicist John Archibald Wheeler.
- It was first announced in the Union Budget for 2021-22. It is estimated to cover 51 lakh Light Motor Vehicles (LMVs) that are above 20 years of age and another 34 lakh LMVs above 15 Years of Age.
- India will also implement a Global Positioning System (GPS)-based toll collection system and do away with all toll booths within a Year.
- It aims in reducing the population of old and defective vehicles, bringing down vehicular air pollutants, improving road and Vehicular Safety.
- Old vehicles will have to pass a fitness test before re-registration and as per the policy Government Commercial vehicles more than 15 years old and private vehicles which are over 20 years old will be scrapped.
- Old vehicles will be tested at the Automated Fitness Center and the fitness test of the vehicles will be conducted according to international standards.
- The Emission test, braking system, safety components will be tested and the vehicles which fail in the fitness test will be scrapped.
- The Ministry has also issued rules for registration procedure for scrapping facilities, their powers, and scrapping procedure to be followed.

Advantages:

- It will lead to creation for more scrap yards in the country and effective recovery of waste from Old Vehicles.
- In the new fitness centers, 35 thousand people will get employment and an investment of Rs 10,000 crores will be Pumped in.
- The government treasury is expected to get around Rs 30,000 to 40,000 crores of money through Goods and Services Tax (GST) from this policy.
- The Prices of auto components would fall substantially with the recycling of metal and Plastic Parts.

- As scrapped materials will get cheaper the production cost of the Vehicle Manufacturers will also reduce.
- It will help improve fuel efficiency and reduce pollution. As older vehicles pollute the environment 10 to 12 times more, and estimated that 17 lakh medium and heavy commercial vehicles are more than 15 years old.

17. Pusa Farm Sun Fridge (Pusa-FSF)

Why in News?

- Scientists from the ICAR-Indian Agricultural Research Institute (IARI) have developed an on-farm green energy refrigeration system (Pusa-FSF) and a technology for extraction of Gluten from wheat dough and its regeneration in bajra (pearl-millet) and makka (maize) Flour.

Highlights:

- It is a 100% solar-powered battery-less cold store that can preserve around 2 tonnes of freshly-harvested produce at 3-4°C during the day and 8-12°C at nighttime.
- It has rooftop solar panels that generate 5 kilowatt (KW) power, which helps in running air conditioning.
- The panels also power a 105-watt submersible pump circulating about 1,000 litres of water from a tank through overhead PVC pipes.
- At night, there is only passive evaporative cooling, with the water chilled during the day acting as a natural heat sink.
- All farmers with solar pumps are a potential market for the Pusa-FSF. India has an estimated four lakh-plus installed solar water pumps.

Advantages:

- Farmers can store and preserve their own produce. It can avoid distress sales and help improve prices.
- It will help minimise post-harvest losses. More room to grow perishable items such as tomatoes, fruits, other than Paddy and Maize.
- Technology for Extraction of Gluten from Wheat Dough needs Bajra, maize, jowar (sorghum), ragi and other millets contain comparable levels of protein and more vitamins, minerals, crude fibre and other nutrients than wheat. But they don't have any gluten proteins, which results in poor dough quality.

- The technology imparts elasticity and structural strength to bajra and maize dough, making their chapattis as soft as from regular wheat atta flour.
- The proteins extracted and dried into powder have the capacity for regeneration or forming gluten networks in non-wheat dough.
- Scientists have developed gluten based 'Hallur' soft bajra flour, with the help of technology.

Gluten:

- It is a family of storage proteins — formally known as prolamins — that are naturally found in certain cereal grains, such as wheat, barley etc.
- The two main proteins in gluten are glutenin and gliadin.
- It offers a variety of functional culinary benefits and is responsible for the soft, chewy texture that is characteristic of many gluten-containing, grain based foods.
- When heated, gluten proteins form an elastic network that can stretch and trap gas, allowing for optimal leavening or rising and maintenance of moisture in breads, pasta, and other similar products.
- Celiac disease, also spelled as coeliac disease, is the most severe form of Gluten Intolerance.

5. ART & CULTURE AND MISCELLANEOUS

1. Guru Ravidas Jayanti

Why in News?

- Recently, Guru Ravidas Jayanti has celebrated on Magh Purnima (27th February 2021), the full moon day in the month of Magh according to the Hindu lunar calendar.

Highlights:

- He was a 14th century saint and reformer of the Bhakti movement in North India.
- It is believed that he was born in Varanasi in a Cobbler's Family.
- He gained prominence due to his belief in one God and his unbiased religious poems.
- He dedicated his whole life to the abolition of the caste system and openly despised the notion of a Brahminical Society.
- His devotional songs made an instant impact on the Bhakti Movement and his poems were included in 'Guru Granth Sahib', the religious text of the Sikhs.

About Bhakti Movement:

- The development of the Bhakti movement took place in Tamil Nadu between the seventh and ninth centuries.

- It was reflected in the emotional poems of the Nayanars (devotees of Shiva) and Alvars (devotees of Vishnu). These saints looked upon religion not as a cold formal worship but as a loving bond based upon love between the worshipped and worshipper.
- In course of time, the ideas of the South moved up to the North but it was a very slow process.
- A more effective method for spreading the Bhakti ideology was the use of local languages.
- The Bhakti saints composed their verses in local languages.
- They also translated Sanskrit works to make them understandable to a wider audience.

2. Saras Aajeevika Mela 2021

Why in News?

- The Union Minister for Rural Development has recently inaugurated Saras Aajeevika Mela 2021 at Noida Haat. More than 300 rural self-help groups and craftsmen from 27 states are participating in the Mela.

Highlights:

- It is a programme to transform rural India in general and the lives of rural women in particular.
- During the Mela, workshops on product packaging and design, communication skills, social media publicity and Business to Business marketing will be organised to educate the rural self-help groups and craftsmen.
- It is an initiative by the Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM) under the Ministry of Rural Development (MoRD) organised by the Council for Advancement of People's Action and Rural Technology (CAPART).
- CAPART is an autonomous body set up by the Ministry of Rural Development to interface between the government and Non-governmental Organizations (NGOs) that seek to improve the quality of life in India's Rural Areas.
- To bring the rural women Self Help Groups (SHGs) under one platform so that they can showcase their skills, sell their products, and help them build linkages with bulk buyers.
- Through participation in SARAS Aajeevika Mela, these rural SHG women will get vital national level exposure to understand the demand and taste of urban customers.
- The Mela acts as an integrated approach towards women empowerment. The Initiative is well aligned with the Government's vision of Atma Nirbhar Bharat.

3. Bamiyan Buddhas

Why in News?

- Two decades later after its destruction, the Bamiyan Buddhas have been brought back to life in the form of 3D projections in an event called “A Night with Buddha”.

Bamiyan Buddhas:

- In their Roman draperies and with two different mudras, the Bamiyan Buddhas were great examples of a confluence of Gupta, Sassanian and Hellenistic artistic styles.
- They are said to date back to the 5th century AD and were once the tallest standing Buddhas in the World.
- Salsal and Shamama, as they were called by the locals, rose to heights of 55 and 38 metres respectively, and were said to be male and female.
- Salsal means “the light shines through the universe”; Shamama is “Queen Mother”.
- The statues were set in niches on either end of a cliffside and hewn directly from the sandstone cliffs.

The significance of Bamiyan:

- Bamiyan is situated in the high mountains of the Hindu Kush in the central highlands of Afghanistan.
- The valley, which is set along the line of the Bamiyan River, was once integral to the early days of the Silk Roads, providing passage for not just merchants, but also culture, religion and language. When the Buddhist Kushan Empire spread, acting as a crucible of sorts, Bamiyan became a major trade, cultural and religious centre. As China, India and Rome sought passage through Bamiyan, the Kushans were able to develop a syncretic (mix) culture.
- In the rapid spread of Buddhism between the 1st to 5th centuries AD, Bamiyan’s landscape Reflected the Faith, Especially its Monastic Qualities.

Taliban’s Destruction of the Buddhas

- The hardline Taliban movement, which emerged in the early 1990s, was in control of almost 90 per cent of Afghanistan by the end of the decade.
- The destruction of the Bamiyan Buddhas was part of this Extremist Culture.
- In February 2001, the Taliban declared its intention to destroy the statues, despite condemnation and protest from governments and cultural ambassadors’ world over.

The Aftermath of the Destruction

- The Taliban's destruction of the Bamiyan Buddhas met with global criticism, many of whom saw it as a cultural crime not just against Afghanistan but also against the idea of global syncretism. Following the fall, UNESCO included the remains in its list of world heritage sites in 2003, with subsequent efforts made to restore and reconstruct.

5.1. ART AND CULTURE SNIPPETS

1. Chipko Movement

Why in News?

- Invoking memories of 'Chipko Movement' of 1970s in the hills of Uttarakhand, Parvati Devi hugs Oak tree in Jaakhni village of Bageshwar district to prevent the felling of the tree in the nearby forest which belongs to Goddess of Justice in the hills of Uttarakhand 'Kotgari Devi'.

About:

- Chipko movement was the uprising against the felling of trees and maintaining the ecological balance originated in Uttar Pradesh's Chamoli district (now Uttarakhand) in 1973.
- The name of the movement 'Chipko' comes from the word 'embrace', as the villagers hugged the trees and encircled them to prevent being hacked.
- It was a silent, non-violent protest condemning ecological destruction.
- Sundarlal Bahuguna, a famous Gandhian, is said to have initiated this Movement to guard the trees on the Himalayan slopes. Bahuguna is also known for coining the Chipko slogan 'Ecology is Permanent Economy'.
- The movement's biggest triumph was making people aware of their rights to forests, and how Grassroots Activism can influence policy-making Regarding Ecology and shared Natural Resources.

2. Anangpal II

Why in News?

- Recently, a seminar highlighted the legacy of the Tomar king - Anangpal II.

Highlights:

- Anangpal II, popularly known as Anangpal Tomar, belonged to the Tomar dynasty.
- He was the founder of Dhillika Puri, which eventually became Delhi.

- The evidence about the early history of Delhi is inscribed on the iron pillar of Masjid Quwaatul Islam, adjacent to Qutub Minar.
- The Multiple inscriptions and coins suggest Anangpal Tomar was the ruler of present-day Delhi and Haryana in between the 8th-12th centuries.
- He had built the city from ruins and under his supervision, Anang Tal Baoli and Lal Kot were constructed.
- Anangpal Tomar II was succeeded by his grandson Prithviraj Chauhan.
- Delhi Sultanate was established in 1192 after Prithviraj Chauhan's defeat in the Battle of Tarain (present-day Haryana) by the Ghurid forces.

About Tomar Dynasty:

- It is one of the minor early medieval ruling houses of northern India.
- The Puranic evidence (writings of the Puranas) gives its early location in the Himalayan region. According to bardic tradition, the dynasty was one of the 36 Rajput tribes.
- The reign of Anangpal, who founded the city of Delhi in the 11th century CE, and the incorporation of Delhi within the Chauhan (Chahamana) kingdom in 1164.
- Although Delhi subsequently became decisively a part of the Chauhan kingdom, numismatic and comparatively late literary evidence indicates that Tomara kings such as Anangapala and Madanapala continued to rule as feudatories, presumably until the final conquest of Delhi by the Muslims in 1192–93.

3. Asia's Largest Tulip Garden

Why in News?

- Asia's largest tulip garden in Srinagar gets high tech cold storage facility.

About:

- Indira Gandhi Memorial Tulip garden, previously Model Floriculture Centre, is a tulip garden in Srinagar, Jammu and Kashmir, India. It is the largest tulip garden in Asia spread over an area of about 30 ha (74 acres).
- It is situated on the foothills of Zabarwan Range with an overview of **Dal Lake**. The garden was opened in 2007 with the aim to boost floriculture and tourism in Kashmir Valley.



- The garden is built on a sloping ground in a terraced fashion consisting of seven terraces. Apart from tulips, many other species of flowers – hyacinths, daffodils and ranunculus have been added as well.
- Tulip festival is an annual celebration that aims to showcase the range of flowers in the garden as a part of tourism efforts by the Government of Jammu and Kashmir. It is organized during the onset of spring season in Kashmir valley.

4. Shigmotsav

Why in News?

- Recently, the Goa government has limited the Shigmotsav (Shigmo festivities) parades to three locations only (Panaji, Ponda and Mapusa), owing to rising cases of Covid-19 in the state.

Highlights:

- It is the celebration of a ‘rich, golden harvest of paddy’ by the tribal communities of Goa.
- Agricultural communities including the Kunbis, Gawdas and Velips celebrate the festival that also marks the onset of spring.

Two Variants of the Festival:

- Dhakto Shigmo is celebrated by the rural population, farmers and the labour class.
- Vhadlo Shigmo is of greater importance and is celebrated by everyone.
- Shigmo celebrations last over a fortnight in the months of Phalgun-Chaitra months of the Hindu calendar that correspond with March-April every year.
- It begins with ‘Naman’ that is the invocation of the local folk deities on the village ‘maand’ or the village stage to the beats of percussion instruments like the Ghumat, Dhol, Mhadle and Tashe by the male folk.
- It is called the ‘romta mell’ that moves from one village to another.
- Folk dances like Ghode Modni (a dance of equestrian warriors), Gopha and Phugadi.
- Shigmo street parade floats as the highlight. It is held as an annual affair in the state capital, Panjim and other major cities like Margao, Mapusa, Vasco, and Ponda.
- These colour-parties usually see people dressed in vibrant clothing performing traditional folk dances to depict the historical legacy of the Maratha War that backs this festival.
- The float parades have, over the years, been a draw for tourists both domestic and international.

5. Garhwal Forts

Why in News?

- A study has recently identified 193 sites having either intact or ruins of Garhwal forts and fortalices spread along the north, east and Southern Regions of the Garhwal Himalayas.

Highlights:

- A majority of medieval forts in the Garhwal Himalayas of Uttarakhand were strategically built to form clusters.
- The forts, dating back to the 8th century Common Era (CE), were built at diverse altitude zones like valleys, along the ridges and prominent hilltops, some standing more than 3,000 metres above Mean Sea Level (MSL) in the Garhwal Himalayas.
- These well networked forts were built either during or after the downfall of the Katyuri dynasty.
- This is the first of its kind database. A total of 36 major forts and 12 prominent fort clusters have been identified.
- Geographically, the forts were built away from one another. But the ruler's back then ensured that they were surrounded with smaller fortalices, which primarily functioned as watchtowers.
- These fortalices were erected and positioned around 15 km periphery of a major fort.
- Numerous such fortalices then formed a strategic network, enabling them to relay Information, Particularly when invaded by Enemies.
- Fire, smoke or similar light signals could have been the common means to convey Messages.

About Katyuri Dynasty”

- The Katyuri kings were a medieval ruling clan of present-day Uttarakhand, India. They ruled over the region now known as Kumaon from 700 to 1200 CE.
- The Katyuri dynasty was founded by Vashudev Katyuri (sometimes spelled Vasu Dev or Basu Dev).
- At its peak, the Katyuri dynasty of Kumaon extended from Sikkim in the east to Kabul, Afghanistan in the west, before fragmenting into numerous principalities by the 12th Century.

6. INTERNATIONAL RELATIONS

1. Pakistan Needs Legislation to Meet Three FATF Benchmarks

Why in News?

- A media report recently said that Pakistan will have to make further legislation on at least two counts to meet three outstanding benchmarks of the 27-point action plan of the FATF before the new June Deadline.

About the News:

- The Paris-based Financial Action Task Force (FATF) placed Pakistan on the grey list in June 2018 and asked Islamabad to implement a plan of action to curb money laundering and terror financing by the end of 2019 but the deadline was extended later on due to COVID-19 pandemic. The new deadline was set till June 2021 by the FATF last month.
- Pakistan has been scrambling in recent months to avoid being added to a list of countries deemed non-compliant with anti-money laundering and terrorist financing regulations by the FATF.

What are the Three Benchmarks?

- The NEC was informed that Pakistan had to update the Paris-based global watchdog on financial crimes on the way forward and its timelines on the basis of observations of FATF plenary and shortcomings pointed out by the FATF assessors within 30 days.
- The Additional Legislation has to cover some weaknesses in the existing framework that limited the authorities from taking action, including imposing sanction or apprehending those acting for or on behalf of Designated terrorist entities or individuals and prosecuting targeted persons and entities or those working for them, within certain deadlines.
- The three outstanding action points include demonstrating that Terrorism Financing (TF) investigations and prosecutions target persons and entities acting on behalf or at the direction of the designated persons or entities and demonstrating that TF prosecutions result in effective, Proportionate and Dissuasive Sanctions.
- Thirdly, Pakistan has to Demonstrate Effective implementation of targeted financial sanctions against all designated terrorists, specifically those acting for or on their behalf, the report said.

About FATF:

- The Financial Action Task Force (FATF) is an **inter-governmental body** established in 1989 during the **G7 Summit** in Paris.

- The objectives of the FATF are to **set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing** and other related **threats to the integrity of the international financial system.**
- Its Secretariat is located at the Organisation for Economic Cooperation and Development (OECD) headquarters in Paris.
- Member Countries: As of 2019, it consists of thirty-seven member jurisdictions. India is one of the members.
- **FATF has Two Lists:**
 1. **Grey List:** Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.
 2. **Black List:** Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities. The FATF revises the blacklist regularly, adding or deleting entries.
- The FATF Plenary is the decision making body of the FATF. It meets three times per year.

FATF and Pakistan:

- Pakistan was placed on the grey list by the FATF in June 2018 and was given a **27 point plan of action** to complete by October 2019, or face the risk of being placed on the black list with Iran and North Korea.
- Pakistan was previously placed on the FATF's grey list in February 2012, and had been removed from the grey list in February 2015 after it passed a National Action Plan (NAP) to deal with terrorism after the Peshawar School massacre in December 2014.
- It was placed under severe restrictions in the years 2008-2012.
- Now due to its failure to completely implement the 27-point action plan to check terror financing Pakistan is likely to be retained in the FATF's Grey list.
- The FATF noted the insufficiency of Pakistan's implementation as "serious concerns".
- The main purpose behind the decision is to not punish rather than incentivise, to make the required changes and make them faster.

What are the Impacts on Pakistan?

- By remaining on the "Grey List", it would be difficult for Pakistan to get financial aid from the International Monetary Fund (IMF), World Bank and European Union, making its Financial Condition More Precarious.

- However, there are no Immediate Implications for the recent \$6 billion loan negotiated with the IMF that is to be disbursed over the next Three Years.
- The country is facing a number of economic challenges with its Economy expected to grow at 3.3 % in 2019 and 2.6% in 2020, according to IMF.
- Inflation is set to touch 7.3% in 2019, up from 3.9% in 2018, and rise to 13% in 2020.
- Fiscal deficit is projected at 7.1% of GDP in 2020, the Highest in the Last Seven Years.

2. Sri Lanka Clears Port Project to be built by India, Japan firms

Why in News?

- A month after walking out of an agreement with Delhi and Tokyo on jointly developing the partially built East Container Terminal (ECT), the Sri Lankan government, has decided to offer the West Container Terminal (WCT) to Indian and Japanese Companies.

About the News:

- According to the Sri Lankan government's department of information, the Lankan cabinet "has approved the proposal to develop the West Container Terminal on Build, Operate and Transfer basis for a period of 35 years as a public-private partnership with Adani Ports and Special Economic Zone Limited and its local representative John Keels Holding PLC, and the Sri Lanka Ports Authority."
- The WCT is strategically located next to a \$500-million Chinese-run container jetty within Colombo's sprawling port.

What is BOT Model?

- It is conventional PPP model in which private partner is responsible to design, build, operate (during the contracted period) and transfer back the facility to the public sector.
- Private sector partner has to bring the finance for the project and take the responsibility to construct and maintain it.
- The public sector will allow private sector partner to collect revenue from the users.
- The national highway projects contracted out by NHAI under PPP mode is a major example for the BOT model.

What does the New Project Imply?

- The cabinet decided to allow India and Japan to have an 85 per cent stake in the WCT. This is similar to the terms set for the Colombo International Container Terminal (CICT), where China Merchants Port Holdings Company Limited holds 85 per cent stake.

- These terms are better than the earlier deal on the ECT – where the Sri Lanka Ports Authority would have 51 per cent stake.

Historical Background of East Container Terminal:

- In May 2019, Sri Lanka's Maithripala Sirisena-Ranil Wickremesinghe's administration signed a memorandum of cooperation (MoC) with India and Japan to jointly upgrade the terminal with the aim of enhancing Sri Lanka's status as a maritime hub.
- As per the MoC, the Sri Lanka Ports Authority (SLPA) was to retain 100% ownership, while a jointly-owned Terminal Operations Company – 51% stake with Sri Lanka and 49% with India and Japan— would run the terminal.
- After President Gotabaya Rajapaksa assumed office in November 2019, winning elections with substantial backing from Sinhala Buddhist nationalist forces, the resistance to the project grew louder, including from some Opposition parties and port workers opposed to foreign involvement in “national assets”.

About East Container Terminal:

- The three countries will jointly build the East Container Terminal at the Port of Colombo.
- As per the agreement the Sri Lanka Ports Authority (SLPA) retains 100% ownership of the East Container Terminal (ECT), while the Terminal Operations Company is jointly owned, the SLPA.
- Sri Lanka will hold a 51% stake in the project and the joint venture partners will retain 49%.
- Japan is likely to provide a 40-year soft loan with a 0.1% interest rate, details of India's contribution to the initiative are awaited.



Importance of the Pulled Out ECT Project for India:

- Over 70% of the trans-shipment business at the strategically located ECT is linked to India.
- India's interest in the project has well-known commercial and strategic motives. The involvement of India and Japan in the project is being seen as a big development aimed at neutralising the growing influence of China, which has poured money into the South Asian island nation under its mammoth Belt and Road Initiative (BRI) infrastructure plan.
- The ECT adjoins the Colombo International Container Terminal (CICT), the SLPA's joint venture with China Merchants Port Holdings Company that holds an 85% stake. A deep-water container terminal, the CICT is the busiest at the Colombo Port.
- The ECT is also located near the China-backed \$1.4 billion Port City coming up on reclaimed land at Colombo's sea front. India has more reasons to pin its hope on the ECT, especially after the Rajapaksa administration ruled out any Indian involvement in developing the Mattala airport, located near the Chinese-built Hambantota Port — leased to China for 99 years — in the island's Southern Province.

3. World Health Organization (WHO) report

Why in News?

- Recently, The First World Report on Hearing was released by the World Health Organization (WHO) - a day ahead of World Hearing Day on 3rd March.

Highlights:

- It underlines the need to rapidly step-up efforts to prevent and address hearing loss by investing and expanding access to ear and hearing care services.
- The 2.5 billion people worldwide — or 1 in 4 people — will be living with some degree of hearing loss by 2050.
- At least 700 million of these people will require access to ear and hearing care and other rehabilitation services Unless Action is taken.

Adverse Health Effects:

- Untreated hearing loss can have a devastating impact on people's ability to communicate, to study and to earn a living. It can also impact people's mental health and their ability to sustain relationships.

Lack of Specialists among Low-Income Countries:

- ✓ About 78% have fewer than one Ear, Nose and Throat (ENT) specialist per million population.

- ✓ 93% have fewer than one Audiologist per Million.
- ✓ Only 17% have one or more speech therapists Per Million.
- ✓ 50% have one or More Teachers for the deaf Per Million.

Hearing Impairment in India:

- Over 27,000 children are born deaf every year in India. Hearing Impairment or loss is often neglected as it cannot be seen and in most cases the Diagnosis is Delayed.

Causes:

- There are many children who can benefit through advanced hearing technology but are missed out because of low awareness around hearing issues in babies.
- One major reason is the unavailability of newborn screening programmes at birth and low awareness among parents.

National Programme for the Prevention & Control of Deafness (NPPCD):

- It is under National Health Mission, which aims to
- To prevent the avoidable hearing loss on account of disease or injury.
- Early identification, diagnosis and treatment of ear problems responsible for hearing loss and deafness. To medically rehabilitate persons of all age groups, suffering with deafness.
- To strengthen the existing inter-sectoral linkages for continuity of the rehabilitation programme, for persons with deafness.
- To develop institutional capacity for ear care services by providing support for equipment and material and training personnel.

Required Interventions:

- Holding screening programmes can help in early diagnosis, which in turn will lead to early treatment. The Universal New-born Hearing Screening (UNHS) helps in early detection of congenital hearing loss and this test is vital to detect hearing impairment in new-born babies and to ensure early intervention. While UNHS screening is mandatory in developed countries, it is not included in the list of Mandatory Health screening procedures for new-borns in India, except Kerala.

Suggested Strategies:

- **Integration of Hearing Care into Primary Healthcare:** This will close the present patient-doctor gap.
- **Clinical Screening at Strategic Points in Life:** To ensure early identification of any loss of hearing and ear diseases.

- **Promoting Hearing Assistive Technology and Services:** It includes measures such as captioning and sign language interpretation which can further improve access to communication and education for those with hearing loss.
- **Increasing Investments:** WHO calculates that governments can expect a return of nearly USD 16 for every USD 1 invested.
- **Increasing Immunisation:** In children, almost 60% of hearing loss can be prevented through measures such as Immunisation for Prevention of rubella and meningitis, improved maternal and neonatal care, and screening for, and Early Management of, otitis media – inflammatory diseases of the Middle Ear.
- **Maintaining Hygiene:** In adults, Noise Control, Safe listening and surveillance of ototoxic (having a toxic effect on the ear) medicines together with good ear hygiene can help maintain good hearing and reduce the potential for hearing loss.

4. Food Waste Index Report 2021

Why in News?

- The United Nations Environment Programme (UNEP) has recently released the Food Waste Index Report 2021.

Highlights:

- It has revealed that 17% of all food available at consumer level (11% in households, 5% in food service and 2% in retail) was wasted in 2019 and around 690 million people had to go Hungry.
- It presents the most comprehensive food waste data collection, analysis and modelling to date, Generating a new Estimate of Global Food Waste.
- It also publishes a Methodology for countries to measure food waste, at household, food service and retail level, to track national progress towards 2030.
- In contrast to the Food Loss Index, the Food Waste Index measures total food waste (rather than loss or waste associated with specific commodities).

Key Findings:

Food Wastage:

- It estimates that around 931 million tonnes of food waste were generated in 2019.
- The 61% of which came from households, 26% from food service and 13% from retail.
- Wastages Across All Income Groups:

- Food waste generation is found to be equally relevant across all income countries such as high, upper-middle and lower-middle income countries.
- Developed Countries like Austria produce very low amounts of waste at 39 kg/capita/year. On the other hand, countries like Nigeria are producing waste at 189 kg/capita/year. For India, the waste in kg/capita/year was 50.
- This diverges from earlier narratives concentrating consumer food waste in developed countries, and food production, storage and transportation losses in developing countries.
- Global food waste data availability is currently low, and measurement approaches have been Highly Variable.

Significance of Food Waste:

- Reducing food waste can slow the destruction of nature through land conversion and pollution, enhance the availability of food and thus reduce hunger and save money at a time of global recession.
- This Food Waste Index Report aims to advance progress on Sustainable Development Goals (SDG 12.3), i.e. “By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses”.
- Tackle GHG Emissions: About 8-10% of global greenhouse gas emissions are associated with food that is not consumed. Thus, tackling food wastage issues can further achieve Paris Agreement targets.
- The enhancing NDCs (Nationally Determined Contributions) for Food Systems: To raise ambition in national climate strategies by integrating food loss and waste, and strengthen food security. Co-create and adopt game-changing solutions to food waste through the UN Food Systems Summit. These Working Groups will provide capacity building and training to participating Member States in measuring food waste, developing a national baseline and designing national strategies for food waste prevention.

About UN Food Systems Summit:

- In 2021, UN Secretary-General António Guterres will convene a Food Systems Summit as part of the Decade of Action to achieve the Sustainable Development Goals (SDGs) by 2030.
- The Summit will launch bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems.

About Food Loss Index:

- The Food Loss Index (FLI) focuses on food losses that occur from production up to (and not including) the retail level.

- It measures the changes in percentage losses for a basket of 10 main commodities by country in comparison with a base period.
- The FLI contributes to measure progress towards SDG Target 12.3.

5. Oil Prices surge as OPEC+ extends output cuts into April

Why in News?

- Oil prices has rose extending gains from the previous session, after OPEC and its allies agreed not to increase supply in April as they await a more substantial recovery in demand amid the Coronavirus Pandemic.

About the News:

- In April 2020, the West Texas Intermediate (WTI) crude slipped below zero for the first time in history, to a negative USD 40.32 per barrel.
- Two crude oils which are either traded themselves or whose prices are reflected in other types of crude oil include West Texas Intermediate (WTI) and Brent.

How Oil Pricing is Done?

- Generally, the Organization of the Petroleum Exporting Countries (OPEC) used to work as a cartel and fix prices in a favourable band.
- OPEC is led by Saudi Arabia, which is the largest exporter of crude oil in the world (single-handedly exporting 10% of the global demand).
- OPEC has a total of 13 Member Countries viz. Iran, Iraq, Kuwait, United Arab Emirates (UAE), Saudi Arabia, Algeria, Libya, Nigeria, Gabon, Equatorial Guinea, Republic of Congo, Angola, and Venezuela.
- OPEC could bring down prices by increasing oil production and raise prices by cutting production.
- The global oil pricing mainly depends upon the partnership between the global oil exporters instead of a well-functioning competition.
- Cutting oil production or completely shutting down an oil well is a difficult decision, because restarting it is immensely costly and complicated.
- Moreover, if a country cuts production, it risks losing market share if other countries do not follow the suit.
- Recently, OPEC has been working with Russia, as OPEC+ to fix the global prices and supply. In 2016, OPEC allied with other top non-OPEC oil-exporting nations to form an even more powerful entity named OPEC+ or OPEC Plus.

Reasons for Present Price Hike:

- **Limited Supply:**
 - ✓ Major oil-producing countries had cut oil production last year amid a sharp fall in demand due to the COVID-19 pandemic.
 - ✓ Saudi Arabia pledged extra supply cuts in February and March 2020 following reductions by other members of the Organization of the Petroleum Exporting Countries (OPEC) and its allies.
 - ✓ In early January 2021, the OPEC and Russia (as OPEC+) agreed to cut back on oil production to increase prices.
- **Rising Demand:**
 - ✓ The production and rollout of vaccines for COVID-19 and the rising consumption post the COVID lockdowns last year have both led to a revival in international crude oil prices.

What is the Impact on India?

- **Current Account Deficit:** The increase in oil prices will increase the country's import bill, and further disturb its current account deficit (excess of imports of goods and services over exports).
 - ✓ According to estimates, a one-dollar increase in crude oil price increases the oil bill by around USD 1.6 billion per year.
 - ✓ India imports 80% of its crude oil requirements and the average price of Indian basket of crude oil has already risen to USD 54.8 barrel for January 2021.
- **Inflation:** The increase in crude prices could also further increase inflationary pressures that have been building up over the past Few Months.
 - ✓ This will decrease the space for the monetary policy committee to ease policy rates further.
 - ✓ The government had hiked central taxes on petrol and diesel by Rs. 13 per litre and Rs. 11 per litre in 2020 to boost revenues amid Lower Economic Activity.
- **Fiscal Health:** If oil prices continue to increase, the government shall be forced to cut taxes on petroleum and diesel which may cause loss of revenue and deteriorate its fiscal balance.
- The growth slowdown in the last two years has already resulted in a precarious fiscal situation because of tax revenue shortfalls.
- The revenue lost will erode the government's ability to spend or meet its fiscal commitments in the form of budgetary transfers to states, payment of dues and compensation for revenue shortfalls to state governments under the goods and services tax (GST) framework.

- **Positive Outcomes:** However, there could be a positive side for India too from the oil price hike.
 - ✓ The value of Indian oil and gas companies could be positively impacted. The government could get greater value from disinvestment in Bharat Petroleum Corporation Limited.
 - ✓ Remittances from the Persian Gulf could increase.

What are the Differences between Brent and WTI?

- **Origin:**
 - ✓ Brent crude oil originates from oil fields in the North Sea between the Shetland Islands and Norway. West Texas Intermediate (WTI) is sourced from US oil fields, primarily in Texas, Louisiana, and North Dakota.
- **Light and Sweet:**
 - ✓ Both oils are relatively light, but Brent has a slightly higher API gravity, making WTI the lighter of the two.
 - ✓ American Petroleum Institute (API) gravity is an indicator of the density of crude oil or refined products.
 - ✓ WTI with a lower Sulphur content (0.24%) than Brent (0.37%), is considered "sweeter".
- **Benchmark Prices:**
 - ✓ Brent crude price is the international benchmark price used by the OPEC while WTI crude price is a benchmark for US oil prices.
 - ✓ Since India imports primarily from OPEC countries, Brent is the benchmark for oil prices in India.
- **Cost of Shipping:**
 - ✓ Cost of shipping for Brent crude is typically lower, since it is produced near the sea and it can be put on Ships Immediately.
 - ✓ Shipping of WTI is priced higher since it is produced in landlocked areas like Cushing, Oklahoma where the Storage Facilities are limited.

6. China gives Green Light for First Downstream Dams on Brahmaputra

Why in News?

- A draft of China's new Five-Year Plan (2021-2025), which is set to be formally approved on March 11, has given the green light for the first dams to be built on the lower reaches of Yarlung Zangbo river, as the Brahmaputra is known in Tibet, before it flows into India.

About the News:

- As India and China continue to grow demographically as well as economically amid increased consumption among its citizenry, both nations face water constraints and, in a race, to develop new projects in order to Overcome Them.

About Brahmaputra River:

- It originates under the name of Siang or Dihang, from the Chemayungdung glacier of the Kailash range near the Mansarovar Lake. It enters India west of Sadiya town in Arunachal Pradesh.
- Tributaries: Dibang, Lohit, Siang, Burhi Dihing, Tista, and Dhansari.
- It is a perennial river and has several peculiar characteristics due to its geography and prevailing climatic conditions.
- It is flooded twice annually. One flood is caused by the melting of the Himalayan snow in summer and the other due to the monsoon flows.
- The frequencies of these floods have increased and are devastating due to climate change and its impact on high and low flows.
- These pose a concern for the population and food security in the lower riparian states of India and Bangladesh.
- The river is in itself dynamic as frequent landslides and geological activity force it to change course very often.



Chinese Perspective:

- China is home to close to 20% of the world's population and has only 7% of its water resources, which also faces severe pollution caused by rapid industrialisation.
- China's southern regions are water-rich in comparison to the water-stressed northern part and to solve that, it plans to link the major rivers in these regions through canals, aqueducts and other linking projects to ensure water security.

- For that, China has been blocking rivers like the Mekong and its tributaries, affecting Southeast Asian countries like Thailand, Vietnam, Laos and Cambodia.
- China, being an upper riparian state in Asia, sees these projects as a continuation of its historic tributary system.
- The smaller states have no means of effectively resisting or even have significant leverage in negotiations.
- In the Himalayas, there are multiple operational dams in the Yarlung Tsangpo basin with more dams commissioned and under construction.

Indian Perspective:

- India has 17% of the world's population and 4% of water.
- It is severely water-stressed and in summer, a vast majority of urban areas face water shortage.
- A majority of India's population reside in the Gangetic plains which enjoy water throughout the year but the southern and western regions experience harsh and dry summer and the rainfall is scarce and erratic in the eastern coast.
- An ambitious north-south river-linking project has been proposed in India as well. However, it has come under criticism for potentially disturbing fragile ecosystems.

Concerns Raised:

- **Degradation of the Basin:**
 - ✓ Massive amounts of silt carried by the river would get blocked by dams leading to a fall in the quality of soil and eventual reduction in agricultural productivity.
- **Threats to Flora and Fauna:**
 - ✓ Brahmaputra basin is one of the world's most ecologically sensitive zones and is identified as one of the world's 34 biological hotspots.
 - ✓ This region has several species of flora and fauna which are endemic to only this part of the world.
 - ✓ The Kaziranga National Park houses 35 mammalian species out of which 15 are listed as threatened in the IUCN Red List.
 - ✓ The river itself is home to the Gangetic river dolphin, which is listed as critically Endangered.
- **Unfavourable Location:**
 - ✓ The location of the dams also poses a risk as the Himalayas are one of the most vulnerable to earthquakes and seismic activity.

✓ Landslides resulting from earthquakes pose a significant threat. For example, the 2015 Nepal earthquake and the resultant landslides wiped out several dams and other Facilities.

• **Risk to Inhabitants:**

- ✓ Damming this perennial river would result in water security in an era of unprecedented shifting climate patterns.
- ✓ The sheer size of the infrastructure projects undertaken by China and increasingly by India, poses a significant threat to the populations living downstream.
- ✓ Close to a million people live in the Brahmaputra basin in India and tens of millions further downstream in Bangladesh.

• **Strategic Implications:**

- ✓ There is the potential to significantly change the flow rate during times of standoffs and high tensions.
- ✓ During the 2018 Doklam border standoff between India and China, China stopped communication of water flow levels from its dams, effectively rendering India blind to floods during the standoff.

Way Forward:

- With India-China relations hitting its lowest point since the 1962 war, border infrastructure has come under intense scrutiny. Alternative solutions to solving the water crisis which have to be adopted in order to neutralise this ticking water bomb.
- Both nations must cease new constructions on the river and commit to potentially less destructive solutions like building a decentralised network of check dams, rain-capturing lakes and using traditional means of water capture.
- These measures have shown effective results in restoring the ecological balance while supporting the populations of the regions in a sustainable manner.
- India and China do not have a water-sharing agreement and they should work upon it. Both nations share hydrological data so it becomes important to share genuine data and have a continuous dialogue on issues like a Warning of droughts, floods and high-water Discharges.

7. Joe Biden's Afghanistan Peace Plan

Why in News?

- The Biden administration is seeking to bring violence to a halt and help form an interim Government in the country.

About the Issue:

- The Joe Biden administration has proposed a new peace plan to the Afghan government and the Taliban, seeking to bring violence to a halt and form an interim government.
- Secretary of State Antony Blinken wrote a letter to Afghan President Ashraf Ghani, which Zalmay Khalilzad, the U.S.'s special envoy for Afghanistan, delivered to the Afghan leader in Kabul last week, detailing the proposal.

What is the American Proposal?

- The proposal included many elements. First, Mr. Blinken has proposed a UN-led conference of representatives of Russia, China, Pakistan, Iran, India and the U.S. “to discuss a unified approach to support peace in Afghanistan”.
- Second, Mr. Khalilzad will share written proposals with the Afghan leadership and the Taliban to accelerate talks. It urges both sides to reach a consensus on Afghanistan’s future constitutional and governing arrangements; find a road map to a new “inclusive government”; and agree on the terms of a “permanent and comprehensive ceasefire”.
- U.S. has also proposed a senior level meeting of the Afghan government and the Taliban in Turkey to discuss Power Sharing, Reduction of Violence and other Specific Goals.

Why the U.S. is Making this Peace Push?

- The Biden administration is currently reviewing its Afghan strategy. While the review is not completed, there is a consensus within the administration, as Mr. Blinken has pointed out, that “accelerating the peace process” is the best way to advance the shared interests of the U.S. and the Afghan Government.
- According to the agreement the U.S. signed with the Taliban in February 2020, American troops - currently some 2,500 troops are in Afghanistan - are set to leave the country by May 1.
- The Taliban have warned that if the U.S. troops are not out by the deadline, they will step up fighting. The Taliban and the Afghan government started peace talks in Doha in September last year but reached no breakthrough. The Biden administration is concerned about the slow pace of the talks.
- The U.S. assessment is that if American troops are pulled out of Afghanistan, the Taliban would make quick gains.
- So, the Biden administration’s assessment is that the Taliban are on the ascent. It hopes that the best way to prevent a complete Taliban takeover is a regional peace process and an interim unity government. The Taliban are yet to respond to America’s proposal.

What is the Afghan Government's Stand?

- The Ghani administration has consistently been critical of the U.S.'s direct outreach to the Taliban. The Trump administration held direct talks with the Taliban, excluding the government.
- Later, Washington put pressure on Kabul to release Taliban prisoners as part of an agreement it reached with the insurgents. Even when the Doha talks between the Taliban and the Afghan government were under way, Mr. Ghani made it clear that he, as elected President, is the only legitimate representative of the Afghan people and he resisted making concessions to the Taliban.
- The relationship between Mr. Ghani and Mr. Khalilzad reportedly broke down in recent months. When Mr. Blinken's letter was leaked, Mr. Ghani was quick to respond. He reiterated his opposition to any transfer of power except through elections. His Vice President Amrullah Saleh, a hardline critic of the Taliban, said the U.S. "can make a decision on their troops, not on the people of Afghanistan".

What's Next?

- While the Afghan government's opposition to sharing power with the Taliban is well known, it is not clear whether Mr. Ghani could continue to resist American pressure, especially if the U.S. brings regional powers, including India, on board.
- And if the Biden administration decides to stick to the Taliban deal and withdraw troops by May, Mr. Ghani would be in a tougher spot. He doesn't have any Good Options.
- If he rejects the American offer, the war will continue forever. The Taliban have already taken over much of the country's hinterlands and are breathing down the neck of its cities.
- If he accepts the proposal, he will have to share power with the Taliban and discuss amendments to the Constitution and the future Governance Framework. Either way, the Taliban are set to make gains.

8. Quad Leaders for 'open, free' Indo-Pacific

Why in News?

- Prime Minister Narendra Modi on Friday, in his address to the first ever leadership summit of the grouping said that the members of the Quadrilateral Framework or 'Quad' will become "closer than Ever Before."

About the News:

- Addressing the virtual summit, Mr. Modi, President Joe Biden of the United States, Japanese Premier Yoshihide Suga and Australian Prime Minister Scott Morrison highlighted cooperation among the member countries to beat the global COVID-19 pandemic, with joint partnership on vaccines, and emphasized the need for an “open” and “free” Indo-Pacific region.
- The member nations agreed to ensure “equitable” access to vaccines to counter the pandemic.
- A joint statement, titled ‘The Spirit of the Quad’, said: “We will join forces to expand safe, affordable, and effective vaccine production and equitable access to speed economic Recovery and Benefit Global Health.”

Significance of the Meeting:

- All the four countries are committed to free and open, inclusive, secure and prosperous Indo-Pacific. The summit adopted a positive vision to address contemporary issues with vaccine cooperation. Leaders agreed to strengthen, peace and stability in the Indo-Pacific region. Japan, U.S. and Australia will finance the vaccine initiative that India has welcomed.
- The vaccine expert working group, a critical and emerging technology working group, and a climate working group for technology, capacity building and climate finance have been cleared during the summit.

What is Quad Grouping?

- The quadrilateral security dialogue includes Japan, India, United States and Australia.
- All four nations find a common ground of being the democratic nations and common interests of Unhindered Maritime Trade and Security.

Historical Background of the Grouping:

- The grouping traces its genesis to 2004 when the four countries came together to coordinate relief operations in the aftermath of the tsunami.
- It then met for the first time in 2007 on the sidelines of the Association of South East Asian Nations (ASEAN) summit.
- The intention was to enhance Maritime Cooperation between the Four Nations.

Significance of the grouping:

- Quad is an Opportunity for like-minded countries to share notes and collaborate on projects of Mutual Interest.

- Members share a vision of an open and free Indo-Pacific. Each is involved in development and economic projects as well as in promoting maritime domain awareness and maritime security.
- It is one of the many avenues for interaction among India, Australia, Japan and the US and should not be seen in an Exclusive Context.

What are China's Views on the Quad?

- There is a general understanding that the Quad would not take on a military dimension against any country. The strategic community in China, nevertheless, had branded it an emerging "Asian NATO".
- Notably, Japanese former PM Shinzo Abe's "Confluence of Two Seas" address to the Indian Parliament gave a fresh impetus to the Quad concept. This recognized the economic Rise of India.

9. Army criteria systemically discriminates against women, says SC

Why in News?

- The Supreme Court was hearing a batch of petitions filed by women officers for Permanent Commission in the Indian Army and Navy, seeking a direction that contempt proceedings be initiated against those who had allegedly failed in their duty to comply with the top court's Earlier Judgment.

About the News:

- The top court, in a landmark ruling (Secretary, Ministry of Defence v. Babita Puniya) in February 2020, had directed the government to ensure that women short service officers are given permanent commission in the Army, including command postings.
- Those who were not granted this in the selection process that ensued had approached the top court, pointing out flaws in the criteria adopted by the Army.

What did the Court said?

- Upholding their grievance, the Supreme Court said that the administrative requirement imposed by the Army of benchmarking these officers with the officers lowest in merit in the corresponding male batch is arbitrary and irrational and shall not be enforced.
- This disproportionate impact is attributable to the structural discrimination against women, adding that the methodology adopted for evaluation of their annual confidential reports and the application of rigorous medical standard at an advanced stage of their careers disproportionately impacts them vis-à-vis their male counterparts.

- The indirect and systemic discrimination has caused an economic and psychological harm and an affront to their dignity.
- On the medical criteria, the court said it should only be seen if their fitness levels in their fifth or tenth year of service met the requisite standards. It ruled that those who were rejected on medical grounds shall be reconsidered within a month and that orders for the grant of permanent commission be issued within two months.
- Directing a review of the method of evaluation of annual reports for future batches, the court held that the evaluation process “has clearly ignored that the writing of their ACRs was fundamentally influenced by the circumstance that at the relevant time an option of PC was not available for women”.

What is a Permanent Commission?

- The Permanent Commission entitles an officer to serve in the Armed Force till he/she retires unlike Short Service Commission (SSC), which is currently for 10 years and can be extended by four More Years, or a total of 14 Years.

Background of the Issue:

- The order came on after a SC verdict with nearly a 10-year-old appeal filed by the government against a 2010 decision of the Delhi High Court to grant SSC women officers permanent commission.
- The induction of women officers in the Army started in 1992. Recruits under the Women Special Entry Scheme (WSES) had a shorter pre-commission training period than their male counterparts who were commissioned under the Short Service Commission (SSC) scheme.
- In 2006, the WSES scheme was replaced with the SSC scheme, which was extended to women officers. They were commissioned for a period of 10 years, extendable up to 14 years.
- According to government, isolation and hardships would eat into their resolve and they would have to heed to the call of pregnancy, childbirth and family. Women ran the risk of capture by enemy and being taken prisoner of war.

What is the Significance?

- Article 14 and 15 states Right to Equality and the State shall not discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them respectively.
- The court found the remarks in the note not only constitutionally invalid but discriminatory, affecting the dignity of Women Officers.

- It also declared that Short Service Commission (SSC) women officers are eligible for Permanent Commission and Command posts in the Army irrespective of their years of service.

Implications of the order:

- The women officers will now occupy all the command appointments, at par with male officers, which would open avenues for further promotions to higher ranks for them.
- If women officers had served only in staff, they would not have gone beyond the rank of Colonel. After implementation of the judgement, a woman can rise to the rank of Colonel and above based on merit, like their male counterparts.
- At the rank of Colonel, an officer picks up a substantive command and would be delegated to carry out independent tasks.
- A Colonel commands a battalion, which typically consists of 850 men. A woman officer who is successful in this position could technically rise to the highest ranks of the Army, though, women officers will not be inducted into the combat arms such as the infantry, artillery or armored corps.

Way Forward:

- Presently, adjustments, both in thought and letter, are necessary to rebuild the structures of an equal society. These adjustments and amendments however, are not concessions being granted to a set of persons, but instead are the wrongs being remedied to obliterate years of suppression of opportunities which should have been granted to women.
- It is not enough to proudly state that women officers are allowed to serve the nation in the Armed Forces, when the true picture of their service conditions tells a different story.
- A superficial sense of equality is not in the true spirit of the Constitution and attempts to make equality only symbolic.

10. World Development Report 2021

Why in News?

- The World Bank has recently published the World Development Report 2021: Data for Better Lives.

About:

- The World Development Report 2021 provides a blueprint on how to harness the power of data for development, to ensure no one is left behind.

- The Social Contract For Data: To get more value out of data while protecting people against harm and ensuring access and representation. Different data-creating and data-using parties need to safely collaborate.
- The three elements of a social contract for data: Value, Equity and Trust

Data As a Force For Public Good:

- Public intent data - data collected with the intent of serving the public good by informing the design, execution, monitoring, and evaluation of public programs and policies - are a prerequisite for many government functions.
- Public intent data can bring value to development through several pathways, such as holding governments accountable and empowering individuals, improving service delivery, and prioritizing scarce resources.
- Repurposing and integrating public- and private-intent data can help provide real-time and finer-scale insights, fill data gaps, and overcome limitations associated with each data type.
- **Connecting The World:** Data Infrastructure is a key part of ensuring equitable access to data for Poor People and Poor Countries.
- Crossing Borders: Data is a tradable asset, but sending them across borders requires adequate Data Protection.
- **Governing Data:** The role of Data Governance is Two Fold:
 - ✓ to control risks by ensuring the security, integrity, and protection of data and systems; and to capture value by establishing rules and technical standards to enable data to be more effectively transferred, combined, and exchanged.
- Improving Data Systems: Fully harnessing the value of data requires building an Integrated National Data System (INDS).
- INDS is a way of countries realizing the potential of data for development, using the principles of the Social Contract as a Blueprint.
- The INDS framework allows a country to share data between national participants safely while Maximizing the Benefit Equitably.

Highlights:

- Not A Leveling Playing Field: An explosion of data platform businesses is raising concern about competition and posing new challenges for regulation.
- Data Platform: It is an integrated technology solution that allows data located in databases to be governed, accessed, and delivered to users, data applications, or other technologies for strategic business purposes.

- **Lack of Open Data:** Only 11% low-income countries make their data open (Not Accessible To General Public or research institution), the report flagged.
- The comparable rate for lower-middle-income countries was 19%, for upper-middle-income countries 22% and high-income countries 44%.
- **Underinvestment In Public Intent Data Systems:** Only half the countries had a national statistical plan that was fully funded as of 2019. While 93% of high-income countries had a fully funded national statistical plan, not a single low-income country had one.
- **Issue Related To Lower-income Countries:** Unable to harness the potential of data due to a lack of institutions, decision-making autonomy, and financial resources, all of which hold back their effective implementation and effectiveness of data systems and governance frameworks.
- **Gaps In Data On Women And Girls** are particularly severe: Only 10 of the 54 gender-specific indicators (19%) in the United Nations-mandated sustainable development goals (SDGs) were widely available.
- **Misuse of Data:** Making data accessible to more users and creating systems that facilitate their reuse also opens the door for data to be misused in ways that can harm individuals or development objectives.
- The report also flagged concerns over protection of personal data; misinformation; and attacks on software, networks and data systems.
- **Data Infrastructural Gaps:** There are major gaps evident between rich and poor people on Broadband Connectivity, and a Substantial Divide Emerging between rich and poor countries when it comes to the Availability of data Infrastructure.
- **Data Gaps in India:** Echoed concerns on assessment of global poverty by the World Bank, which has been skewed due to absence of data on poverty from India.
- India monitors 54 out of the 130 SDG indicators. While the overall number of monitored indicators has gone up, the country has dropped four indicators from its tracking list.
- The report called for Strategic Repurposing of Existing Data.

Some Steps Taken by India:

- **National Data Sharing & Accessibility Policy (NDSAP):**
 - ✓ The National Policy is expected to increase the accessibility and easier sharing of non-sensitive data amongst the registered users and their availability for scientific, economic and Social Developmental Purposes.
- **Open Government Data (OGD) Platform:**

- ✓ To Provision an Enabling Platform to provide proactive and open access to the data generated.
- ✓ To Increase Transparency, Accountability, Citizen Engagement, Collaboration, Better Governance, Decision making & Innovation.
- ✓ Paradigm Shift in Governance – Direct Delivery of Services to Citizens, Setting up a Platform for Collaboration, Innovation in delivery of Services to Citizens.

Way Forward

- ✓ **Participation of the Poor:** Data offers Tremendous potential to create value by improving programs and policies, Driving Economies, and Empowering Citizens. The perspective of poor people has largely been absent from the global debate on data Governance and urgently needs to be heard.
- **International Cooperation:** The Report called for International cooperation to harmonise regulations and coordinate policies so that the value of data can be harnessed to benefit all, and to inform efforts toward a green, resilient and inclusive recovery.

11. China, N. Korea threats loom as Blinken, Austin head to Asia

Why in News?

- Biden administration's first Cabinet-level trip abroad as part of a larger effort to bolster U.S. influence in Asia.

Concerns:

- Threats from China and North Korea have a significant influence on the Biden administration's trip that among other things, aims to calm concerns about America's role in Asia.
- As part of that effort and to reduce the risks of escalation, efforts had been made to connect with the North Koreans since February 2021, including through what is known as the "New York channel."
- However, there has been no response from North Korea.
- Consultations with North Korea's neighbours, Japan, South Korea and China are all the more significant for America, as it has not received any response from the reclusive country.

Highlights:

- Biden has Signalled his desire to return the Asia-Pacific to the top of the U.S. foreign policy agenda. This is in line with his broader diplomatic theme "America is back".

- The new administration is trying to strengthen partnerships with the two key regional allies, Japan and South Korea.
- Relationships with both countries were transactional and often temperamental under the Trump administration.
- The U.S. and South Korean Negotiators have Overcome years of contentious discussions under Mr. Trump to reach a tentative deal on paying for the American troop presence in South Korea.
- Recently America took part in the Quad virtual leadership summit. It pledged to keep stability in the region at the core of its International Initiatives.

12. UK turns to Indo-Pacific

Why in News?

- Britain wants to expand its influence among countries in the Indo-Pacific region to try to moderate China's global dominance.
- A document laying out post-Brexit has highlighted foreign defence policy priorities of the UK.

Britain's Post BREXIT Plan:

- This document is Britain's biggest foreign and defence policy review since the end of the Cold War.
- It sets out a planned increase to Britain's nuclear arsenal to weigh against evolving global security threats and underlines the importance of strong ties with the US while naming Russia as the top regional threat.
- It sets out how PM Boris Johnson wants to be at the forefront of a reinvigorated, rules-based international order based on Cooperation and Free Trade.

Focus on Indo-pacific:

- China and the U.K. both benefit from bilateral trade and investment, but China also presents the biggest state-based threat to the U.K.'s economic security, the report said.
- Calling the Indo-Pacific increasingly the geopolitical centre of the world, the government highlighted a planned British aircraft carrier deployment to the region.
- Britain, the world's sixth-largest economy, is dwarfed economically and militarily by China.
- The UK believes, through soft power and strategic alliances, it can help persuade Beijing to play by the rules of a new, more Dynamic International System.

Content over Hong Kong:

- The Sino-British ties have tensed since over issues including Beijing's security crackdown on former British colony Hong Kong.
- UK needs India for this juncture
- UK PM Boris Johnson has called "India is an increasingly indispensable partner for the United Kingdom."
- India's skilled labour, technological assistance and the vibrant market will open a lot of avenues for Britain which has recently parted ways with the European Union.
- India is not the world's largest telecom market; it is also the fastest-growing.
- According to a study on India's telecom sector, an increase in telecom subscriptions often touches 20 million a month.
- India also offers the cheapest data compared at current market exchange rates. As per cable.co.uk, the price per GB data in India to be \$0.09.
- Along with the world, India is now steering towards 5G. The UK will need India's help to marginalize China in the telecom market.

What else?

- The report categorised India as "an international actor of growing importance"
- Earlier the British government has approached Washington about a "D10" club of Democratic Partners, based on G7 plus Australia, South Korea and India.

13. Inter-Parliamentary Union (IPU)

Why in News?

- The President of the Inter-Parliamentary Union (IPU) have recently addressed Members of Parliament at the Central Hall of the Indian Parliament.

Highlights:

- IPU is an international organisation of national parliaments. It was established in 1889 in Paris. It was founded by statesmen Frédéric Passy of France and William Randal Cremer of the United Kingdom.
- It works with close co-operation with the United Nation (UN), regional parliamentary organisations, international intergovernmental organisations and non-governmental organisations for the arbitration of conflict.
- It is a unique platform for observing political opinions and trends around the world.

- Its aim is to promote parliamentary dialogue world-wide and works for peace and cooperation among the peoples.
- To promote democratic governance, accountability, and cooperation among its members.
- Promoting parliamentary action by addressing international concerns in six main areas:
 - ✓ Representative Democracy.
 - ✓ Peace and Security.
 - ✓ Sustainable Development.
 - ✓ Human rights and Humanitarian law.
 - ✓ Women in Politics.
 - ✓ Education, Science, and Culture.
- Its members are 179 countries are members of the IPU and 13 regional parliamentary assemblies are associate members. India is a member.
- Its Headquarters is located at Geneva, Switzerland.

14. US India Artificial Intelligence (USIAI)

Why in News?

- The US India Artificial Intelligence (USIAI) initiative has recently been launched to scale up the Science and Technology relationship between India and the United States.

Highlights:

- It is an initiative of Indo-US Science and Technology Forum (IUSSTF) which was established in March 2000.
- The Department of Science & Technology (DST), Government of India, and the U.S. Department of State are respective nodal departments for IUSSTF.
- It will focus on AI cooperation in critical areas that are priorities for both countries. For Example: Healthcare, smart cities, materials, agriculture, energy, and manufacturing.
- It will bring together key stakeholders from India and the United States to create synergies that address challenges and opportunities at the interface of science, technology, and society.
- This will provide an opportunity to discuss the emerging AI landscape, and address the challenges of developing an AI workforce.

About Artificial Intelligence:

- It describes the action of machines accomplishing tasks that have historically required human intelligence.

- It includes technologies like machine learning, pattern recognition, big data, neural networks, self-algorithms etc.
- It is different from hardware driven Robotic Automation. Instead of Automating Manual tasks, AI performs frequent high volume computerised tasks reliably.
- It is often misunderstood for machine learning. AI is a broader concept with a bunch of technologies that include machine learning and other technologies like natural language Processing, Inference Algorithms, Neutron networks etc.
- Its techniques are now have become an Essential Part of the Technology Industry helping to solve many challenging problems in computer-science. From Apple Siri to self-driving cars, AI is progressing rapidly.

15. The surge of geopolitics in South Asia's power trade

Why in News?

- India has released new rules governing the trade of electricity across its borders. They define the contours of the South Asian electricity market, placing clear limits on who can buy from and sell into India.

Highlights:

- This has ramifications for the electricity markets of Bangladesh, Bhutan, and Nepal, which, to varying degrees, have aligned their energy futures with the Indian market.
- The new rules show that India's approach is Unmistakeably Political.
- It attempts to balance China's growing influence in the region with Developmental Aims.

Rules on Ownership:

- The Ownership of Power Plants wishing to sell to India is of Central Importance.
- The rules strongly discourage the participation of plants owned by a company situated in a third country with whom India shares a land border and does not have a bilateral agreement on power sector cooperation with India.
- Chinese companies hoping to establish plants in Nepal, Bhutan, or Bangladesh will have a hard time making good on their investments with the Indian market cut off.
- The rules place the same security restrictions on tripartite trade. Eg.: from Bhutan to Bangladesh through Indian territory.
- Also, the rules establish elaborate surveillance procedures to detect changes in the ownership patterns of entities trading with India.

- With this, South Asia's electricity politics has hit a holding pattern after several years of unpredictability.

Guidelines on Electricity Trade:

- India used the framework of the South Asian Association for Regional Cooperation (SAARC) to make historical moves towards liberalising electricity trade.
- But, China soon began to make its presence felt in the region, and India responded by imposing stringent restrictions that dissuaded everyone other than Indian and government Entities from Participating.
- This move threatened to weaken the private sector participation and promising joint ventures across the region.
- Nepal and Bhutan protested for years, leading to new guidelines in 2018 that tried to find a Middle Ground.
- These rules Formalise that Balancing Act.
- They allow Private Sector Participation but exclude Chinese Investments.

India-centricity no advantage:

- The Institutional Structure that has emerged over the last decade is India-centric.
- The Government of India, through ministries, regulators, planning bodies and utilities, determines the rules of the road.
- India's geographic centrality combines with its economic heft to give it a natural advantage in determining the shape of the market.
- All electrons must pass through it and most electrons will be bought by it.
- Therefore, India will enjoy pre-eminent rule-setting powers, but continually attract the wrath of its smaller neighbours who feel their economic growth is being stunted.

Countering China:

- The likely first battle will be in Southeast Asia, where China presently has great influence.
- A considered, stable institutional model will likely surpass anything China has to offer.
- It is worth considering releasing the vice-like grip on South Asia, aimed at countering China, by creating a rule-based regional institution that can counter Chinese offerings.

Way Forward:

- These Rules Provoke some larger questions that must be Tackled Soon.
- An ad hoc design also makes the Indian project less attractive to countries looking to sign up to a Power Trading Project.

- India's ambition of anchoring a global super-grid called One Sun One World One Grid, or OSOWOG needs an Institutional Vision.
- It aims to begin with connections to West Asia and Southeast Asia and then spread to Africa and beyond.
- The logic underpinning OSOWOG is sound. Renewable energy transitions benefit from grids that cover vast areas and diverse Geographic Conditions.
- Multi-country grids allow for the unpredictable outputs from renewable energy plants to be balanced across countries, thus avoiding expensive country-specific balancing technologies such as hydropower and gas plants.
- Political realities will constantly collide with, and damage, expansive visions of borderless trade. Impartial institutions for planning, investments and conflict resolution are crucial to multi-country power pools.

16. India abstains in UNHRC vote on Sri Lanka

Why in News?

- India Abstained from a crucial vote on Sri Lanka's rights record at the United Nations Human Rights Council in Geneva.

Highlights:

- The resolution on 'Promoting reconciliation, accountability and human rights in Sri Lanka' was adopted after 22 states of the 47-member Council voted in its favour.
- While 14 countries, including India, Japan and Nepal, abstained from voting, 11 countries, including China, Pakistan, Russia and Bangladesh voted against the resolution, and in support of the Sri Lankan government.
- Sri Lanka is resisting the process envisaged in the resolution to prosecute war criminals through an international evidence gathering and investigation mechanism.
- The Sri Lankan administration was counting on India's support and had even expressed its confidence in obtaining India's support at the Human Rights Council voting.
- On the other hand, the Tamil National Alliance (TNA) sought the exact opposite outcomes on the resolution.

17. Suez Canal

Why in News?

- Recently, a large cargo ship named 'Ever Given' got stuck near the southern end of the Suez Canal due to a mishap caused by bad weather.

Highlights:

- The Suez Canal is an artificial sea-level waterway running north to south across the Isthmus of Suez in Egypt, to connect the Mediterranean Sea and the Red Sea.
- The canal separates the African continent from Asia.
- It provides the shortest maritime route between Europe and the lands lying around the Indian and western Pacific oceans.
- It is one of the world's most heavily used shipping lanes, carrying over 12% of world trade by volume.
- It provides a crucial link for oil, natural gas and cargo being shipped from East to West. As per Suez Canal Authority (SCA) data, in 2020, nearly 19,000 ships, or an average of 51.5 ships per day, with a net tonnage of 1.17 billion tonnes passed through the canal.
- The canal is a major source of income for Egypt's economy, with the African country earning USD 5.61 billion in revenues from it last year.
- In 2015, Egypt announced plans to further expand the Suez Canal, aiming to reduce waiting times and double the number of ships that can use the canal daily by 2023.

18. Remove the Wedges in India-Bangladesh Ties

Why in News?

- 2021 marks 50 years since the independence of Bangladesh. India has played a key role in Bangladesh's Liberation War and the friendship continues to grow. India lent its support on the political, diplomatic, military and humanitarian front, and India's soldiers gave up their lives and an estimated 10 million Bangladeshi refugees took shelter in India.

Tracing the Journey of the Relationship:

- The relationship between India and Bangladesh has vacillated through highs and lows depending on the regimes in power.
- It had remained cordial until the assassination of Bangladesh's founding President Sheikh Mujibur Rahman in 1975, followed by a period of military rule and the rise of General Ziaur Rahman who became President and also assassinated in 1981.

- It thawed during the period of 1982-1991 when a military-led government by General H.M. Ershad ruled the country.
- Since Bangladesh's return to parliamentary democracy in 1991, we have seen drastic developments. In the last decade, India-Bangladesh relations have warmed up, entering a new era of cooperation, and moving beyond historical and cultural ties to become more assimilated in the areas of trade, connectivity, energy, and defence.

Achievements and Progress:

- Both the countries have solved the border issues amicably by ratifying the historic Land Boundary Agreement in 2015, where enclaves were exchanged allowing inhabitants to choose their country of residence and become citizens of either India or Bangladesh.
- The Bangladesh government led by Prime Minister Sheikh Hasina has uprooted anti-India insurgency elements from its borders, making the India-Bangladesh border one of the region's most peaceful.
- This has allowed India to make a massive redeployment of resources to its more contentious borders elsewhere along India's borders and tension prone areas.

Bilateral trade between India and Bangladesh:

- Bangladesh today is India's biggest trading partner in South Asia with exports to Bangladesh in FY 2018-19 at \$9.21 billion and imports at \$1.04 billion.
- India has offered duty-free access to multiple Bangladeshi Products.
- India has extended three lines of credit to Bangladesh in recent years amounting to \$8 billion for the construction of roads, railways, bridges, and ports.
- Issues:
- In the last eight years until 2019, only 51% of the first \$800 million line of credit has been utilised whilst barely any amount from the next two lines of credit worth \$6.5 billion has been mobilised.
- This delay and progress is due to red-tapism from India's end and from Bangladesh's side, it may be due to the slow implementation of the project.

The Connectivity Boost:

- Connectivity between the two countries has greatly improved.
- A direct bus service between Kolkata and Agartala runs a route distance of 500 km, as compared to the 1,650 km it would have run through the Chicken's Neck, to remain within India.

- There are three passenger and freight railway services running between the two countries, with two more routes on their way to be restored.
- Recently, a 1.9-kilometre long bridge, the Maitri Setu, was inaugurated by Prime Minister Narendra Modi, connecting Sabroom in India with Ramgarh in Bangladesh.

Enhanced Cooperation in Shipping and Inland Water Trade:

- Bangladesh allows the shipment of goods from its Mongla and Chattogram (Chittagong) seaports carried by road, rail, and waterways to Agartala (Tripura) via Akhura; Dawki (Meghalaya) via Tamabil; Sutarkandi (Assam) via Sheola, and Srimantpur (Tripura) via Bibirbazar.
- This allows landlocked Assam, Meghalaya and Tripura to access open water routes through the Chattogram and Mongla ports.

Bones of Contention:

- Despite the remarkable progress, the unresolved Teesta water sharing issue looms large.
- Border killings are yet to stop. The year 2020 saw the highest number of border shootings by the Border Security Force. The shots are fired at civilians, usually cattle traders, who are usually unarmed, trying to illegally cross the border.
- The government's proposal to implement the National Register of Citizens across the whole of India may result in a bleak atmosphere between the countries.
- It remains to be seen how India addresses the deportation of illegal Muslim immigrants, some of whom claim to have come from Bangladesh.

China's Influence in the Region:

- In spite of its 'Neighborhood First Policy', India has been losing its influence in the region to China. Sri Lanka, Nepal and the Maldives, once considered traditional Indian allies, are increasingly tilting towards China due to the Asian giant's massive trade, infrastructural and defence investments in these countries.
- Bhutan also does not abide by Indian influence as evinced by its withdrawal from the BBIN (Bhutan-Bangladesh-India-Nepal) motor vehicles Agreement.
- China, in lieu of its cheque-book diplomacy, is well-entrenched in South Asia, including Bangladesh, with which it enjoys significant economic and Defence Relations.

Way Forward:

- India-Bangladesh relations have been gaining positive momentum over the last decade.

- Going forward India has to be generous enough to let the water flow (the Teesta issue has to be settled) and the issues concerning illegal migration has to be addressed by well-established protocols of both countries.
- Trade could be more balanced if non-tariff barriers from the Indian side could be removed.
- These small but important steps can remove long-standing snags in a relationship that otherwise is gradually coming of age in 50 years.

19. Japan to Fund A&N, Metro Expansion

Why in News?

- In the first-ever official development assistance (ODA) project in Andaman & Nicobar (A&N), Japan has approved grant aid worth ₹265 crore, to improve the power supply in the Islands.

Highlights:

- This is the first-ever ODA project in the strategic islands of Andaman & Nicobar (apart from Humanitarian Emergency Assistance).
- While approving the grant, Japan stressed the strategic geopolitical location of the islands for a free, open and Inclusive Indo-Pacific.
- India is key to the Quad and the Indo-Pacific region.
- Cooperation between Japan and India on these crucial islands demonstrate the Commitment of both countries to realising a stable, peaceful and prosperous Indo-Pacific.
- The grant would be used to Procure 15MWh batteries as well as power system stabilisers to allow better utilisation of solar power generated in South Andaman.
- Japan has also extended yen loans worth ₹16,186 crore, for executing four projects, including Delhi Metro's Phase 4 and Bengaluru Metro's Phase 2 expansion plans.
- Loan agreements have been signed between the Japan International Cooperation Agency (JICA) and the Government.
- A loan of ₹807 crore was extended for crop diversification in Himachal Pradesh and ₹3,272 crore in loans to rural water supply with a focus on mitigating fluorosis in Rajasthan's Jhunjhunu and Barmer districts.

6.1. INTERNATIONAL RELATIONS SNIPPETS

1. Swiss Neutrality in World Affairs

Why in News?

- Switzerland's traditional foreign policy of neutrality has become attractive again because of the changing political reality in the world, said its Ambassador recently.

Swiss Neutrality:

- Swiss neutrality is one of the main principles of Switzerland's foreign policy which dictates that Switzerland is not to be involved in armed or political conflicts between other states.
- This policy is self-imposed, permanent, and armed, designed to ensure external security and promote peace.
- Under this, Switzerland pursues an active foreign policy and is frequently involved in peace-building processes around the world.

Historic Significance:

- Switzerland has the oldest policy of military neutrality in the world; it has not participated in a foreign war since its neutrality was established by the Treaty of Paris in 1815.
- The European powers (Austria, France, the UK, Portugal, Prussia, Russia, Spain and Sweden) agreed at the Congress of Vienna in May 1815 that Switzerland should be neutral.
- But final ratification was delayed until after Napoleon Bonaparte was defeated so that some coalition forces could invade France via Swiss territory.

Swiss Moves for the status:

- Since World War II, Switzerland has taken a more active role in international affairs by aiding with humanitarian initiatives, but it remains fiercely neutral with regard to military affairs.
- It has never joined the North Atlantic Treaty Organization (NATO) or the European Union, and only joined the United Nations in 2002.

Relevance Today:

- Neutrality has become necessary as a foreign policy tool as the phase of power politics has returned in world affairs.
- Now with big power politics, Switzerland's neutrality and Switzerland as a place to meet is much more attractive again.

2. International Criminal Court (ICC)

Why in News?

- Recently, International Criminal Court (ICC) has launched investigations into the war crimes in Palestinian Territories Occupied by Israel (West Bank and the Gaza Strip).

Highlights:

- The decision for investigation is taken after a recent ruling that the court's jurisdiction extends to territories occupied by Israel since the 1967 Six-day Arab- Israeli war.
- Israeli forces seized the Golan Heights from Syria, the West Bank & East Jerusalem from Jordan and Sinai Peninsula & Gaza strip from Egypt.
- The investigation is also expected to cover the 2014 Gaza war, the 2018 Gaza border clashes and Israeli settlement-building in the West Bank.
- The inquiry will also look at whether rocket fire by Hamas and other groups from Gaza amounts to war crimes.

About ICC:

- It is Governed by an international treaty called 'The Rome Statute', the ICC is the world's first permanent international criminal court.
- Its Headquarter is located at The Hague, Netherlands.
- It investigates and, where warranted, tries individuals charged with the gravest crimes of concern to the international community: genocide, war crimes, crimes against humanity and the crime of aggression.
- Through international criminal justice, ICC aims to hold those responsible for their crimes and to help prevent these crimes from happening again.
- India is not a party to Rome Statute along with the USA and China.

About Golan Heights

- It is a rocky plateau with an area of 1,800km² on the border between Israel and Syria in south-western Syria.
- It is a strategic location that Israel captured from Syria in the 1967 war. Israel effectively annexed the territory in 1981.
- Recently, the USA has officially recognized Jerusalem and Golan Heights as a part of Israel.

3. Food Waste Index Report 2021

Why in News?

- The Food Waste Index Report 2021 was recently released by the UNEP.

Food Waste Index:

- The Food Waste Index is released by the United Nations Environment Programme (UNEP) and partner organisation WRAP. It measures tons of wasted food per capita, considering a mixed stream of products from Processing Through to Consumption.
- It was prepared by using data from 54 countries and then extrapolated to the remaining Countries. Contrary to belief, the study by the UNEP revealed that food waste was a global problem and not that of just the Developed World.

Highlights of the 2021 Report:

- The report has revealed that 17 per cent of all Food Available at Consumer levels was wasted in 2019. That year, some 690 million people had to Go Hungry.
- The food waste amounted to a whopping 931 million tonnes of food sold to households, retailers and restaurants.
- Waste at household, foodservice and retail amounted to 79, 26 and 13 kilogram /capita / year respectively. The data, though scarce, revealed that food waste was substantial, regardless of income level.

Data on India:

- The report notes that food waste at the consumer level happens in almost every country, regardless of Income Level. In South Asia, while 50 kilograms of food is wasted per person each year at the household level in India.
- Others include- 65 kilograms of this happening in Bangladesh, 74 kilograms in Pakistan, 76 kilograms in Sri Lanka, 79 kilograms in Nepal and 82 kilograms in Afghanistan.

Why it is Important to Prevent Food Wastage?

- Food waste also has a substantial environmental, social and economic impact.
- Food loss and waste cause about \$940 billion per year in economic losses. Reductions can save money for farmers, companies, and households. For example, 8-10 per cent of global greenhouse gas emissions are associated with food that is not Consumed. Reducing food waste would cut greenhouse gas emissions, slow the destruction of nature through land conversion and pollution, enhance the availability of food and thus reduce Hunger and Save Money.