



Green Energy Corridor (GEC) Project



CURRENT AFFAIRS

JANUARY - 2022

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1. ECONOMY

1. Census First Phase, NPR Data Collection deferred till September

Why in News?

- The first phase of the census and collection of details to update the National Population Register (NPR) have been postponed at least till September.

About the News:

- The Registrar General of India (RGI) had in December informed the States that freezing of boundaries of districts, sub-districts, tehsils, talukas, police stations etc. has been postponed till June 2022.
- Freezing of boundary limits of administrative units, at least three months prior, is a prerequisite for conducting the census. Even if the RGI issues an order in June to freeze the boundaries again, the exercise can take place only in September.
- Finalisation of administrative units entails covering all jurisdictional changes in an administrative area between two consecutive censuses.
- The first phase of Census 2021 – the House listing and Housing Census along with updating the NPR – was scheduled to be held from April-September, 2020 but was postponed indefinitely due to the COVID-19 pandemic. The second and main phase of the decennial exercise – the population enumeration – was to be concluded by March 5, 2021.
- There was a ban on States to create new administrative units from January 1, 2020 to March 31, 2021.
- The RGI informed the States in July 2020 that after the outbreak of the pandemic, the field work of the first phase of Census 2021 and the other related activities have been postponed until Further Orders.
- In Census, data is collected on demographic and various socio-economic parameters like education, SC/ST, religion, language, marriage, fertility, disability, occupation and migration of the individuals.
- The forthcoming Census is to be the first digital Census and there is a provision for self-Enumeration.

What is Census?

- The census provides information on size, distribution and socio-economic, demographic and other characteristics of the country's population.
- The Census was first started under British Viceroy Lord Mayo in 1872. It helped in framing new policies, government programs to uplift areas of improvement in the community.

- The first synchronous census in India was held in 1881. Since then, censuses have been undertaken uninterruptedly once every ten years.

Who Conducts Census?

- The responsibility of conducting the decennial Census rests with the Office of the Registrar General and Census Commissioner, India under Ministry of Home Affairs, Government of India. The Census is one of the most credible sources of information on the following:
 - ✓ Demography.
 - ✓ Economic Activity.
 - ✓ Literacy and Education.
 - ✓ Housing & Household Amenities.
 - ✓ Urbanization, Fertility, and Mortality.
 - ✓ Scheduled Castes and Scheduled Tribes.
 - ✓ Language.

Historical Significance:

- ‘Rig-Veda’ reveals that some kind of population count was maintained during 800-600 BC in India.
- Arthashastra by ‘Kautilya’ written in the 3rd Century BC prescribed the collection of population statistics as a measure of state policy for taxation.
- During the regime of the Mughal king Akbar, the administrative report ‘Ain-e-Akbari’ included comprehensive data pertaining to population, industry, wealth and many other Characteristics.

2. Extending the GST Compensation

Why in News?

- Finance Ministers of several States have demanded that the GST compensation scheme be Extended beyond June 2022.

What's the Issue?

- The adoption of GST was made possible by States ceding almost all their powers to impose local-level indirect taxes and Agreeing to let the prevailing multiplicity of imposts be Subsumed into the GST.
- This was agreed on the condition that revenue shortfalls arising from the transition to the new indirect taxes regime would be made good from a pooled GST Compensation Fund for a period of five Years that is set to end in June 2022.

Need for Extension:

- Citing the impact of the COVID-19 pandemic on the overall economy and more specifically States' revenues, the States including Tamil Nadu, Kerala, West Bengal, Rajasthan and Chhattisgarh stressed that while their revenues had been adversely impacted by the introduction of GST, the hit from the pandemic had pushed back any possible rebound in revenue especially at a time when they had been forced to spend substantially more to address the public health emergency and its socio-economic fallout on their residents.

What is the GST Compensation?

- The Constitution (One Hundred and First Amendment) Act, 2016, was the law which created the mechanism for levying a common nationwide Goods and Services Tax (GST).
- While States would receive the SGST (State GST) component of the GST, and a share of the IGST (integrated GST), it was agreed that revenue shortfalls arising from the transition to the new indirect taxes regime would be made good from a pooled GST Compensation Fund for a period of five years that is currently set to end in June 2022.

How is the GST Compensation Fund funded?

- This corpus is funded through a Compensation cess that is levied on so-called 'demerit' Goods. The items are pan masala, Cigarettes and tobacco products, aerated water, caffeinated Beverages, Coal and certain Passenger motor vehicles.

Computation of the Shortfall:

- The computation of the shortfall is done annually by projecting a revenue assumption based on 14% compounded growth from the base year's (2015-2016) revenue and calculating the difference between that figure and the actual GST collections in that year.

Can the deadline be Extended? If so, how?

- The deadline for GST compensation was set in the original legislation and so in order to extend it, the GST Council must first recommend it and the Union government must then move an amendment to the GST law allowing for a new date beyond the June 2022 deadline at which the GST compensation scheme will come to a close.

3. Airtel Payments Bank is now a Scheduled Bank

Why in News?

- The Reserve Bank of India (RBI) has announced the inclusion of Airtel Payments Bank Ltd. in the Second Schedule to the Reserve Bank of India Act, 1934.

Implications:

- With this, the bank can now pitch for Government-issued Requests for Proposals (RFP) and Primary Auctions and undertake both Central and State Government business.

What is a Schedule Bank?

- Scheduled Banks in India refer to those banks which have been included in the Second Schedule of Reserve Bank of India Act, 1934.
- Every Scheduled bank enjoys two types of principal facilities: It becomes eligible for debts/loans at the bank rate from the RBI; and, it automatically acquires the membership of Clearing House.

About Airtel Payments Bank:

- It is among the fastest-growing digital banks in the country, with a base of 115 million users.
- It offers a suite of digital solutions through the Airtel Thanks app and a retail network of over 500,000 Neighbourhood Banking Points.
- The bank Turned Profitable in the Quarter ended September 2021.

What is Payment's bank?

- Payment banks were established to promote financial inclusion by offering; 'modest savings accounts and payments/remittance services to migratory labour workforce, low-income households, small enterprises, other unorganised sector entities, and other users.'
- These banks can accept a restricted deposit, which is now capped at Rs 200,000 per person but could be raised in the future.
- These banks are unable to provide loans or credit cards. Banks of this type can handle both current and savings accounts.
- Payments banks can provide ATM and debit cards, as well as online and mobile banking.

GOING FURTHER AFIELD

While some services offered by payments banks and small finance banks will be similar, there are some key differences. Here is a look at what they will offer.

PAYMENTS BANK	SMALL FINANCE BANK
• Can accept deposits, but only up to ₹1 lakh per individual customer	• Allowed to take deposits of any amount
• Can't lend in any form	• Can lend but the focus will be on small lending
• Can open small savings accounts	• Can finance small business units, small and marginal farmers, micro and small industries and unorganised sector entities
• Can provide remittance services	• Can provide remittances as well as credit cards
• Allowed to issue automated teller machine (ATM) or debit cards	• Allowed to issue ATM or debit cards
• Not allowed to issue credit cards	• Has to ensure that 50% of loan portfolio constitutes advances of up to ₹25 lakh
• Can distribute products such as mutual funds, insurance and third-party loans	• Can distribute financial products such as mutual funds, insurance and pension

Source: RBI website

4. GI Tag Sought for Kumbakonam Vetrilai, Thoivalai Manikka Malai

Why in News?

- Geographical Indications Registry in Chennai has received applications seeking GI tag for Two Famous products from Tamil Nadu — Kumbakonam Vetrilai and Thoivalai Manikka Malai.

About the News:

- The application for Kumbakonam Vetrilai was filed by the Tamil Nadu Agricultural University, Coimbatore while the application for Thoivalai Manikka Malai was given by the Thoivalai Manikkamaalai Kaivinai Kalaingargal Nalasangam, Kanniyakumari.

About the Kumbakonam Betel Leaves:

- The Kumbakonam betel leaves were heart shaped and grown in the Cauvery delta region by small and marginal farmers. It is particularly grown in Ayyampettai, Rajagiri, Pandaravadai and Swamimalai in Thanjavur district.
- On an average, about 60-80 lakh betel leaves were harvested annually from a one-hectare plot. A betel leaf cultivator spends ₹10,000 to ₹50,000 to grow land. Harvested leaves are washed, cleaned, and graded according to their size and quality. They were traditionally packed in bamboo baskets but now there are several options such as Plantain Leaves and Cloth Bags.

About the Thoivalai Manikka Malai:

- Thoivalai Manikka Malai is a special type of garland that is made only in Thoivalai, a small village in Kanniyakumari. The flowers used in this particular garland are positioned in a way that when folded they look like a gem.
- The flowers are generally arranged in five rows, but at times for other decorations, 20 rows are used. The height ranges from one foot to 24 feet and above.
- Chamba fibre, nochi leaves, oleander and rose flowers are the key materials used for making this garland. Thoivalai is famous for its abundance of flowers and most of flowers are procured locally.



What is GI Tag?

- A GI or Geographical Indication is a name or a sign given to certain products that relate to a specific geographical location or origins like a region, town or country.

- Using Geographical Indications may be regarded as a certification that the particular product is produced as per Traditional Methods, has certain specific qualities, or has a particular reputation because of its geographical origin.
- Geographical indications are typically used for wine and spirit drinks, foodstuffs, agricultural products, handicrafts, and industrial products.
- GI Tag ensures that none other than those registered as authorized users are allowed to use the popular product name. In order to function as a GI, a sign must identify a product as originating in a given place.



Who Accords and Regulates Geographical Indications?

- Geographical Indications are covered as a component of intellectual property rights (IPRs) under the Paris Convention for the Protection of Industrial Property.
- At the International level, GI is governed by the World Trade Organisation's (WTO's) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- In India, Geographical Indications registration is administered by the Geographical Indications of Goods (Registration and Protection) Act, 1999 which came into force with effect from September 2003.
- The first product in India to be accorded with GI tag was Darjeeling tea in the year 2004-05.

What are the Benefits of GI Tags?

- The Geographical Indication registration confers the following benefits:
 - ✓ Legal protection to the products
 - ✓ Prevents unauthorised use of GI tag products by others
 - ✓ It helps consumers to get quality products of desired traits and is assured of Authenticity.
 - ✓ Promotes the economic prosperity of producers of GI tag goods by enhancing their demand in national and International Markets.

What are the Significances of GI Tags?

- A geographical indication right facilitates those who have the right to use the indication to prohibit its usage by a third party whose product does not conform to the applicable standards. For example, in the purview in which the Darjeeling geographical indication is protected, Producers of Darjeeling tea can omit the term "Darjeeling" for tea not grown in their tea Gardens or not produced according to the norms set out in the code of practice for the Geographical Indication.

- However, a protected GI does not permit the holder to forbid someone from making a product using the same approaches as those set out in the standards for that indication. Protection for a GI tag is usually procured by acquiring a right over the sign that constitutes the Indication.

Challenges in GI Tags:

- The special treatment to wines and spirits in TRIPS Agreement appears to be developed Country Centric.
- Developing countries, including India, seek the same higher level of protection for all GIs as was given under TRIPS for wines and spirits.
- The battle for GI tag between states.
- False use of geographical indications by unauthorized parties is detrimental to consumers and Legitimate Producers.
- Cheap Power loom saris are sold as reputed Banarsi handloom saris, harming both the producers and consumers.
- Such unfair business practices result in loss of revenue for the genuine right-holders of the GI and also misleads consumers.
- Protection of GI has, over the years, emerged as one of the most contentious IPR issues.

Way Forward:

- The benefits of GI tag are realised only when these products are effectively marketed and protected against illegal copying.
- Effective marketing and protection require quality assurance, brand creation, post-sale consumer feedback and support, prosecuting Unauthorised Copiers, etc.
- For internationally recognised products like Darjeeling tea, international protection is of Crucial Importance.
- Legal protection to GIs also extends to protection of traditional knowledge and traditional Cultural Expression contained in the products.
- Hence Intellectual Property is a power tool for economic development and wealth creation particularly in the Developing World.
- GIs have the potential to be our growth engine. Policy-makers must pay a heed to this and give Indian GI products their true Reward.

1.1 ECONOMY SNIPPETS

1. Eight Core Industries

Why in News?

- The output of Eight Core Industries grew at 3.1 %, the slowest pace in eight months in November, indicating slowing momentum in the Indian economy.

Highlights:

- The Eight core sectors are Coal, crude oil, natural gas, refinery products, fertiliser, steel, cement and electricity.
- These comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP). Barring crude oil and cement, all other sectors recorded positive growth.
- The eight core sector industries in decreasing order of their weightage: Refinery Products > Electricity > Steel > Coal > Crude Oil > Natural Gas > Cement > Fertilizers.
- IIP is an indicator that measures the changes in the volume of production of industrial products during a given period. It is compiled and published monthly by the Central Statistical Organization (CSO), Ministry of Statistics and Programme Implementation.
- It is a composite indicator that measures the growth rate of industry groups .
 - ✓ These are the classified group sBroad sectors, namely, Mining, Manufacturing, and Electricity.
 - ✓ Use-based sectors, namely Basic Goods, Capital Goods, and Intermediate Goods.
 - ✓ The Base Year for IIP is 2011-2012.
- It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
- IIP remains extremely relevant for the calculation of the quarterly and advance GDP (Gross Domestic Product) Estimates.

2. Chisumle- Demchok: Worlds' Highest Motorable Road

Why in News?

- Ladakh's Chisumle-Demchok Road, when it crosses the Umling Pass, is now the world's highest motorable road.

Chisumle- Demchok Road:

- The project to build the road through the pass — a part of Border Roads Organization (BRO) Project Himank — had been completed in 2017, after which vehicles had started playing on the route.

- The road is in south Ladakh. It passes through Umling La Pass, which is at a height of over 19,000 feet.
- The height of the pass makes it the highest motorable road in the world, and was recently recognized as such by Guinness World Records.
- The 52-km road 'black-top' tarmac road from Chisumle to Demchok betters the previous record of a road in Bolivia, which connects the volcano Uturuncu at 18,953 feet.
- The road was built under extremely challenging conditions, as temperatures in the region can fall to below minus 40 degrees Celsius, and oxygen levels go down to 50 per cent below normal.

Top of the world:

- At the pass, the road is higher than both the base camps for the climb to Mount Everest, the world's highest mountain.
- The South Base Camp in Nepal is at a height of 17,598 ft, while North Base Camp in Tibet is at 16,900 ft.
- The Chisumle-Demchok road is also higher than the Siachen Glacier, which is situated at 17,700 feet.
- Khardung La in Leh, which at one time was among the highest roads in the world, is at an altitude of 17,582 feet.

Military Significance of the Road:

- This road provides a direct route from Chisumle, which lies on the major road coming from Leh, Karu and Nyoma.
- All of these stations have important military stations which are close to the Line of Actual Control.
- Demchok has been an India-China flashpoint earlier, the site of a standoff between the two armies in 2016.
- In the current standoff in eastern Ladakh, which began in May 2020, Demchok has come up as a point of contention.

Other benefits offered:

- The new axis will be helpful for the armed forces, making it easier to mobilize troops and equipment, Including Rations.
- The road will not only enable faster movement of armed forces to the region but will also boost tourism and improve the socio-economic condition of the local people in the region.

Certain Limitations:

- Since the road goes through such a high pass, road transport will be unfeasible during the winter, when the armed forces rely on air support.

3. RBI approves Offline E-Payments

Why in News?

- The Reserve Bank of India (RBI) has come out with the framework for facilitating small-value digital payments in offline mode, a move that would promote digital payments in semi-urban and rural areas.

Offline E-payments:

- Offline digital payment does not require Internet or telecom connectivity.
- Such payments can be carried out face-to-face (proximity mode) using any channel or instrument like cards, wallets and mobile devices.
- Such transactions would not require an Additional Factor of Authentication.
- Since the transactions are offline, alerts (by way of SMS and/or e-mail) will be received by the customer after a time lag.
- There is a limit of ₹200 per transaction and an overall limit of ₹2,000 until the balance in the account is replenished.

Conditions Applied:

- Payment instruments shall be enabled for offline transactions only after the explicit consent of the customer.
- That apart, these transactions using cards will be allowed without a requirement to turn on the contactless transaction channel.
- The customers shall have recourse to the Reserve Bank – Integrated Ombudsman Scheme, as applicable, for grievance redressal.
- RBI retains the right to stop or modify the operations of any such payment solution that enables small value digital payments in offline mode.

4. Centre for Monitoring Indian Economy (CMIE)

Why in News?

- Recently, the Centre for Monitoring Indian Economy (CMIE), India's unemployment rate touched a four-month high of 7.9% in December 2021.

- With Covid-19 cases on the rise amid the threat posed by the Omicron variant and many states imposing fresh curbs, economic activity and consumption levels have been affected.
- This could adversely affect economic recovery further going ahead
- Unemployment occurs when a person who is actively searching for employment is unable to Find Work. Unemployment is often used as a measure of the health of the economy.
- The most frequent measure of unemployment is the unemployment rate, which is the number of unemployed people divided by the number of people in the labour force.
- National Sample Survey Organisation (NSSO) defines employment and unemployment on the following activity statuses of an individual:
 - Working (engaged in an economic activity) i.e. ‘Employed’.
 - Seeking or available for work i.e. ‘Unemployed’.
 - Neither seeking nor available for work.
- The first two constitute the labour force and unemployment rate is the percent of the labour force that is without work.
- $\text{Unemployment rate} = (\text{Unemployed Workers} / \text{Total labour force}) \times 100$

5. A Reality Check on Great CAPEX Expectations

Why in News?

- Economists are predicting a potential virtuous Capital Investments (capex) cycle to kick in Globally as we Emerge from the Pandemic.

Why do Analysts think that Capital Investment Cycle is about to start?

- **Less Leveraged:** Corporates are less leveraged today compared to 2008.
- Indian corporates repaid debts of more than Rs 1.5 trillion.
- **Fiscal and Monetary Support:** Companies are also more confident of durable fiscal and Monetary Support.
- Increased savings: Households have large excess savings built during Covid – \$1.7 trillion in the US and roughly \$300 billion in India as per a UBS report.
- **Cash:** Lastly, corporates are sitting on a large cash pile – S&P 500 firms’ cash has soared from \$1 trillion pre-pandemic to \$1.5 trillion now.

Why capex wave is Difficult in India?

- Fall in capital formation: India’s fixed capital formation rate has steadily fallen from 36 per cent of GDP in 2008 to 26 per cent in 2020.

- For a set of 718 listed companies for which data is consistently available from 2005, the capex growth rate has decreased from 7 per cent in 2008 to around 2 per cent in 2020.
- Low return on invested capital: The return on invested capital in FY21 is still low at 2-3 per cent compared with 16-18 per cent returns in 2005-08.
- Structural issues: Land acquisition is still tough, changes to labour laws have been slow, and reform uncertainty has resurfaced with the rollback of the agriculture reform laws.
- Discouraging current data: As per CMIE data, the quarter ending in June 2021 saw Rs 2.72 lakh crore worth of new projects announced. This fell to Rs 2.22 lakh crore for the September 2021 quarter.
- This is much below the average of Rs 4 lakh crore a quarter of new project announcements during 2018 and 2019.
- Further, new projects are concentrated in fewer industries (power, and technology) with the top three accounting for 44 per cent of the total of new projects announced.
- Low capacity utilisation: At the same time, capacity utilisation for corporate India is at an all-time low.
- From a peak of 83 per cent in 2010, when capex was running hot, utilisation levels declined to 70 per cent just before the pandemic, and further to 60 per cent in June 2021 as per the RBI's latest OBICUS data.
- Capex is funded either from fresh debt or equity issues or from accumulated cash. Large firms are repaying debt.

6. Issues with India's GDP data

Why in News?

- There are three major reasons why the GDP data, and hence any narrative of Economic Recovery based on it, are Questionable.

Background:

- The NSO released the current GDP series in 2015, using 2011-12 as its base year.
- Some have argued that the problem in the new series is the real Growth Rate. This is Debatable.
- Scholars have pointed to measurement problems, both in the nominal and real GDP Growth Rates.
- Three issues with the GDP data, and narrative of economic recovery based on it.

Double Deflation Problem:

- The new series entailed a shift from a volume-based measurement system to one based on nominal values, thereby making the deflator problem more critical.
- Simply put, the NSO calculates real GDP by gathering nominal GDP data in rupees and then deflating this data using various price indices.
- The nominal data needs to be deflated twice: Once for outputs and once for inputs.
- But the NSO — almost uniquely amongst G20 countries — deflates the nominal data only once.
- It does not deflate the value of inputs.
- To see why this is a problem, consider what happens when the price of imported oil goes down.
- In that case, input costs will fall and the profits recorded by Indian firms will rise.
- This increase in profits is merely the result of a fall in input prices, so it needs to be deflated away.
- But the NSO doesn't deflate away the increase in profits.
- Since the cost of inputs is measured by the WPI (wholesale price index), a crude measure of the overestimation caused by the absence of “double deflation” is given by the gap between the WPI and the CPI (consumer price index).
- In the 2014-2017 period, oil prices plunged, causing the WPI to fall sharply relative to the CPI.
- This meant that real growth was probably overstated.
- In the last few months, the exact opposite has been happening. WPI inflation is soaring.
- The rapid increase in the WPI relative to the CPI is imparting an upward bias to the deflator.

Sectoral Weight not Updated:

- When it calculates GDP, it takes a sample of activity in each sector, then aggregates the figures by using sectoral weights.
- To make sure that the weights are reasonably accurate, the NSO normally updates them once a decade.
- It has now been more than 10 years since the weights were changed, and there are no signs of a base Year Revision.
- As a result, the sectoral weights are still based on the structure of the economy in 2010-11, when in particular the information technology sector was much smaller.

Measurement of Unorganised Sector:

- Measurement of the unorganised sector has always been difficult in India.
- Once in a while, the NSO undertakes a survey to measure the size of the sector.
- In the meantime, it simply assumes that the sector has been growing at the same rate as the Organised Sector. However, starting in 2016 the unorganised sector has been disproportionately impacted by a series of Shocks.
- In 2018, the NBFC sector reported serious problems, which in turn impacted unorganised sector firms since they were heavily dependent on NBFCs for funds.
- From 2020 onwards, the pandemic has impacted the unorganised sector more than the organised Sector Enterprises. Despite these shocks, the NSO does not seem to have made any adjustments to its methodology for estimating the growth of the unorganised sector.

7. What is Antrix- Devas Multimedia Deal?

Why in News?

- A Canadian court has ordered the seizure of more than \$30 million worth of Airport Authority of India's assets.

Background:

- In 2005, Devas Multimedia signed an agreement with Antrix —a commercial arm of the IISRO —to provide multimedia services to mobile users using the leased S-band satellite spectrum to be provided by Antrix.
- In 2011, the UPA-2 government canceled this agreement on the ground that it needed the S-band satellite spectrum for national security and other social purposes.
- This led to arbitration between Antrix and Devas at the International Chambers of Commerce (ICC) and two bilateral investment treaty (BIT) arbitrations. India lost all three disputes.

India's Non-Compliance:

- AAI and Air India are being targeted because they are Indian public sector entities with overseas assets and serve as a proxy for the government of India.
- The Canada court can do so through the concept of restrictive immunity.
- In the meanwhile, the National Company Law Tribunal (India) ordered the liquidation of Devas Multimedia on the ground that the affairs of the company were being carried on fraudulently.

Why did India Cancel the Deal?

- The scandal first came to light when in 2011, the news reported that there were some Irregularities in the agreement between Antrix and Devas.
- They reported the findings of a draft audit report and pointed out discrepancies including Financial Mismanagement, conflict of interest, non-compliance of rules, and favoritism.
- This revelation came at the heel of the 2G spectrum scam which was condemned for the high level of corruption.

How can a Canadian Court order the Attachment of Indian Assets?

- State immunity — a well-established principle of international law — shields a state and its property against legal proceedings in the courts of other countries.
- This covers immunity from both jurisdiction and execution.
- However, there is no international legal instrument in force dealing with state immunity in the municipal legal systems of different countries, which has created an international void.
- Consequently, countries have filled this void through their national legislations and domestic judicial practices on state immunity. Typically, prominent jurisdictions such as Canada follow the concept of restrictive Immunity (a foreign State is immune only for sovereign functions) and not absolute Immunity.

How can assets of AAI be seized when the claim is against India?

- In execution proceedings, assets of an entity can be seized if that entity is an alter ego of the State that fails to comply with the arbitral award. In other words, if the foreign sovereign exercises such Extensive Control over the Entity, then the presumption that the entity has a separate corporate character is set aside.
- Thus, the Canadian court must have concluded that the Indian government extensively controls AAI.

What options does India have?

- The first option is to comply with the two adverse BIT awards. However, it is highly unlikely that India would do so.
- The second option is to challenge this decision in an appellate court in Canada as per Canadian law where India can try proving that the 'extensive control requirement' is not met in the case of AAI. However, state immunity from execution is purely a procedural hurdle to the enforcement of the BIT award.
- It cannot justify India's breach of its international law obligations enshrined in the two BITs and the continued failure to comply with the arbitral awards.

8. Taxing Cryptocurrency Transactions

- Notwithstanding the eventual introduction of the Cryptocurrency and Regulation of Official Digital Currency Bill in Parliament, cryptocurrencies continue to proliferate.

Provisions in Income Tax Act 1961 to Tax Cryptocurrencies:

- Cryptocurrencies not mentioned in Income Tax Act, 1961: Although the Income Tax Act, 1961 (“IT Act”) does not specifically mention cryptocurrencies, it does cast a wide enough net to bring crypto transactions under its ambit.
- Capital asset: Trading in cryptocurrency may be classified as transfer of a ‘capital asset’, taxable under the head ‘capital gains. Business income: If such cryptocurrencies are held as stock-in trade and the taxpayer is trading in them frequently, the same will attract tax under the head ‘business income’. Even if one argues that crypto transactions do not fall under the above heads, Section 56 of the IT Act shall come into play, making them taxable under the head ‘Other sources of income’.

Challenges in Taxing Cryptocurrencies

- The above provisions in themselves are not sufficient in order to put in place a simple yet effective taxation regime for cryptocurrencies.

Varied Interpretations:

- First, the absence of explicit tax provisions has led to uncertainty and varied interpretations being adopted in relation to mode of computation, applicable tax head and tax rates, loss and carry forward, etc.
- For instance, the head of income under which trading of self-generated cryptocurrency (currencies which are created by mining, acquired by air drop, etc.) is to be taxed is unclear. Since there is no consistency in the rates provided by the crypto-exchanges, it is difficult to arrive at a fair market value.
- Similarly, when a person receives cryptocurrency as payment for rendering goods or services, how should one arrive at the value of the said currency and how should such a transaction be taxed?

Identifying Tax Jurisdiction

- It is often tricky to identify the tax jurisdiction for crypto transactions as taxpayers may have engaged in multiple transfers across various countries and the cryptocurrencies may have been stored in online wallets, on servers outside India.

The Anonymity of Taxpayer

- The identities of taxpayers who transact with cryptocurrencies remain anonymous.
- Exploiting this, tax evaders have been using crypto transactions to park their black money abroad and fund criminal activities, terrorism, etc.

Lack of third-party information on crypto transaction

- The lack of third-party information on crypto transactions makes it difficult to scrutinise and identify Instances of Tax Evasion.
- One of the most Efficient Enforcement tools in the hands of Income Tax Department is CASS or ‘computer aided scrutiny selection’ of assessments, where returns of taxpayers are selected inter alia based on information gathered from third party intermediaries such as banks.
- However, crypto-market intermediaries like the exchanges, wallet providers, network operators, miners, administrators are unregulated and collecting information from them is very difficult.

Physical Goods/Services may change hand in Return for Cryptocurrencies

- Even if the crypto-market intermediaries are regulated and follow Know Your Customer (KYC) norms, there remains a scenario, where physical cash or other goods/services may change hands in return for cryptocurrencies.
- Such Transactions are hard to trace and only voluntary disclosures from the parties involved or a search/survey operation may reveal the tax evaders.

Steps need to be taken:

- **Statutory Provision:** The income-tax laws pertaining to the crypto transactions need to be made clear by incorporating detailed statutory provisions.
- **Awareness Generation:** This should be followed by extensive awareness generation among the taxpayers regarding the same.
- **Separate Mandatory Disclosure:** The practice of having separate mandatory disclosure requirements in tax returns (as is the case in the United States) should be placed on the taxpayers as well as all the intermediaries involved, so that crypto transactions do not go unreported.
- **Strengthen international legal framework:** Additionally, the existing international legal framework for exchange of information should be strengthened to enable collecting and sharing of information on crypto-transactions.

- This will go a long way in linking the digital profiles of cryptocurrency holders with their real identities.
- **Training Tax Officers:** The Government must impart training to its officers in blockchain technology. The United Nations Office on Drugs and Crime's 'Cybercrime and Anti-Money Laundering' Section (UNODC CMLS) has developed a unique cryptocurrency training module, which can aid in equipping tax officers with requisite understanding of the underlying Technologies.

9. World Economic Forum's Davos Agenda '22

Why in News?

- PM Modi has made a special address ahead of the theme-setting World Economic Forum (WEF) Agenda on the 'State of the World' at Davos.

World Economic Forum (WEF):

- WEF is an international non-governmental and lobbying organisation based in Cologne, canton of Geneva, Switzerland. It was founded on 24 January 1971 by German engineer and economist Klaus Schwab. The foundation, which is mostly funded by its 1,000 member companies – typically Global Enterprises with more than five billion US dollars in turnover – as well as public subsidies. It aims at improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas.

Major Reports Released:

- Engaging Tomorrow Consumer Report
- Inclusive growth & Development Report
- Environmental Performance Index
- Global Competitive Index, Global Energy Architecture Performance Index Report
- Global Gender Gap Report, Global Information Technology Report
- Human Capital Report
- Inclusive growth & Development Report
- Global Risk Report
- Travel and Tourism Competitiveness Report by WEF

Important Agenda: Davos meeting:

- The WEF is mostly known for its annual meeting at the end of January in Davos, a mountain resort in the eastern Alps region of Switzerland.

- The meeting brings together some 3,000 paying members and selected participants – among which are investors, business leaders, political leaders, economists, celebrities and journalists.

Why is WEF Important?

- **Common platform:** The WEF summit brings together the who's-who of the political and corporate world, including heads of state, policymakers, top executives, industrialists, media Personalities, and Technocrats.
- **Influence Global Decision-making:** Deliberations at the WEF influence public sector and corporate decision-making.
- **Discusses Global Challenges:** It especially emphasizes on the issues of global importance such as poverty, social challenges, climate change, and global economic recovery.
- **Brings in all Stakeholders:** The heady mix of economic, corporate, and political leadership provides an ideal opportunity for finding solutions to global challenges that may emerge from time to time.

What are the Main Initiatives?

- Agenda 2022 will see the launch of other WEF initiatives meant for:
- Accelerating the mission to net-zero emissions
- Economic opportunity of nature-positive solutions
- Cyber resilience

Criticisms of WEF:

- WEF has been criticized for being more of a networking hub than a nebula of intellect or a Forum to find effective solutions to global issues. It is also criticized for the lack of representation from varied sections of the civil society and for falling short of delivering effective solutions.

Way Forward:

- WEF sees large-scale Participation of top industry, business leaders, civil society, and International Organizations every year. This collaboration is necessary for addressing global concerns such as climate change and Pandemic Management. It is one of such few platform, that provides an opportunity for collaboration through Comprehensive Dialogue.

10. High Tariffs on The Import of Electronics Components

Why in News?

- A report by the Indian Cellular and Electronics Association (ICEA) has recently said that India's policy of adopting high tariffs on the import of electronics components may prove to be counterproductive.

Highlights:

- ICEA is the apex industry body of the mobile and electronics industry comprising Manufacturers. India has adopted high tariffs on the import of electronics components to reduce risks from global competition and save Domestic Companies.
- However, it may prove to be counterproductive to its schemes aimed at increasing domestic production of electronic products.
- India vs Other Nations: All the countries have tried to encourage the domestic production of electronic goods in their geographies by adopting almost similar strategies such as attracting Foreign Direct Investment (FDI), improving domestic capabilities and competitiveness, increasing exports and then linking their markets with global value chains.
- China: Since 1980 China has improved its ranking in terms of office and telecom equipment export from 35 to 1, while Vietnam, which did not export any such electronic products up until 1990s has climbed the ladder to become the eight largest export in just 20 years.
- Mexico: Similarly, Mexico, which was 37th in terms of electronics product export in the 1980s has steadily risen through the ranks to gain 11th place, a position it has maintained over the last two decades.
- Thailand ranked 45 in 1980, has also consolidated its position in the top 15 electronic product exporters, according to the report.
- India, which started at 40th position in the 1980s has gained and lost positions to reach 28th position by 2019. Though all the countries followed nearly the same policy to boost domestic electronics manufacturing, one major difference between India and the rest of the countries was heavy reliance on tariffs.
- It is due to such high tariffs that investors and electronic component makers from global markets shy away from India as a market since the participation of the country in global value chains has remained low.

- Further, despite the size of the Indian economy, its participation in exports and international trade has remained low.
- Even for the domestic markets, the assumption that it will be beneficial to most companies since it is large and growing is wrong.
- For example, in the case of mobile phones, where one of the largest PLI schemes is currently operational, the size of the domestic market is expected to increase to USD 55 billion by 2025-26, whereas the global market is expected to reach USD 625 billion by the same time.
- Thus, at present, the Indian domestic market is about 6.5% of the global market, with a possibility of growing to 8.8%, if the growth forecasts are reasonably robust.
- At present, India's market share is not attractive enough for FDI to choose India as a location primarily on the basis of its domestic market per se, especially if India's policies result in cost inefficiencies which create obstacles to accessing a much larger global market.

11. One District One Product (ODOP) Initiative

Why in News?

- As a major boost to Centre and State collaboration in promoting products under the ODOP Initiative – a State Conference was recently held by the Department for Promotion of Industry and Internal Trade (DPIIT).

One District One Product (ODOP):

- ODOP spearheaded by the Uttar Pradesh government in 2018, is an important initiative that is being adopted all over India to realize the true potential of each district.
- ODOP is an Initiative which is seen as a transformational step forward towards realizing the true Potential of a district, fuel economic growth and generates employment and rural Entrepreneurship. It is operationally merged with 'Districts as Export Hub' initiative being implemented by DPIIT as a major stakeholder.
- The main philosophy is to select, brand and promote one product from each district of India that has a specific characteristic feature to enable profitable trade in that product and generate employment.

Why needs this Scheme?

- India is home to several agricultural and non-agricultural (including manufacturing) products that are region-specific.

- Every district has products that are unique and provide livelihoods and generate income.
- This scheme is in tune with the PM's call to transform every district into an export hub and realize the goal of Atmanirbhar Bharat.

What needs to be Done for its Success?

- The important aspect that the policy initiatives in India should thus be mindful of are:
- Ownership of the initiative should lie at the center of implementation.
- The stakeholders irrespective of the sector along the value chain need to be identified and provided information and awareness.
- It is important to streamline other initiatives such as registration of Geographical Indications (GI), formation and development of farmer producer organizations etc.

12. ICE360 Survey 2021

- Recently ICE360 Survey 2021, K-shaped recovery emerges from the economy hit by the coronavirus pandemic. The survey, between April and October 2021, covered 2,00,000 households in the first round and 42,000 households in the second round.

Highlights:

- It was conducted by People's Research on India's Consumer Economy (PRICE), a Mumbai-based think-tank.
- The annual income of the poorest 20% of Indian households, constantly rising since 1995, plunged 53% in the pandemic year 2020-21 from their levels in 2015-16.
- In the same five-year period, the richest 20% saw their annual household income grow 39% reflecting the sharp contrast Covid's economic impact has had on the bottom of the pyramid and the top.
- The survey shows that the pandemic hit the urban poor most and eroded their household income.
- This resulted in job losses and loss of income for the casual labour, petty traders and household workers.
- The pandemic brought economic activity to a standstill for at least two quarters in 2020-21 and resulted in a 7.3% contraction in GDP in 2020-21.
- While 90% of the poorest 20% in 2016, lived in rural India, that number had dropped to 70% in 2021.
- On the other hand, the share of the poorest 20% in urban areas has gone up from around 10% to 30% now.

- The Government needs to do more to prevent a K-shaped recovery of the economy hit by the Coronavirus Pandemic.
- The Indian Economy has "some bright spots and a number of very dark stains" and the Government should target its spending "carefully" so that there are no huge deficits.
- The bright spots are the health of Large Firms, the roaring business the IT and IT-enabled sectors are doing, including the emergence of unicorns in a number of areas, and the strength of some parts of the Financial Sector.
- The "dark stains" are the extent of unemployment and low buying power, especially amongst the lower middle-class, the financial stress small and medium-sized firms are experiencing, "including the very tepid credit growth, and the tragic state of the schooling".

K-Shaped Recovery:

- It occurs when, following a recession, different parts of the economy recover at different rates, times, or magnitudes. This is in contrast to an even, uniform recovery across sectors, industries, or groups of people.
- It leads to changes in the structure of the economy or the broader society as economic outcomes and relations are fundamentally changed before and after the recession.
- This type of recovery is called K-shaped because the path of different parts of the economy when charted together may diverge, resembling the two arms of the Roman letter "K."

13. 'Bad Bank'

Why in News?

- The Reserve Bank of India's (RBI's) approval for the implementation of the proposal for setting up a 'Bad Bank' is still pending.

Highlights:

- The National Asset Reconstruction Company Limited (NARCL) has been set up and issued a license by the RBI to conduct business as an Asset Reconstruction Company (ARC).
- NARCL will acquire stressed assets worth about Rs 2 lakh crore from various commercial banks in different phases.
- Public Sector Banks (PSBs) will maintain 51% ownership in NARCL.
- Simultaneously, a separate company has been set up to function as an Asset Management Company, named India Debt Resolution Company Limited (IDRCL), which will provide management and resolution of assets and also help in the operational aspects, relating to price discovery and aim at evolving the best possible recovery and the resolution process.

- PSBs and Public Financial Institutes (FIs) will hold a maximum of 49% stake in IDRCL. The remaining 51% stake will be with private-sector lenders.
- The NARCL is majorly owned by public sector banks with 51% ownership but in the case of the IDRCL, 51% shares are in private hands.
- The NARCL will first purchase bad loans from banks.
- It will pay 15% of the agreed price in cash and the remaining 85% will be in the form of “Security Receipts”.
- When the assets are sold, with the help of IDRCL, the commercial banks will be paid back the rest. If the bad bank is unable to sell the bad loan, or has to sell it at a loss, then the government guarantee will be invoked.
- The difference between what the commercial bank was supposed to get and what the bad bank was able to raise will be paid from the Rs 30,600 crore that has been provided by the Government. This guarantee is extended for a period of five years.

Demand of Indian Banks:

- Normally, a single entity to be held accountable as owner, and for recovery of the assets, is the practice followed across geographies.
- Possibly a ‘Principal and Agent mechanism’ or similar arrangement may evolve to resolve this Issue.
- The Indian Banks’ Association is learnt to have wanted a dual structure, with the AMC as a privately held entity, to be out of the purview of the regulatory entities.

About Bad Bank

- The bad bank is an ARC or an Asset Management Company (AMC) that takes over the bad loans of commercial banks, manages them and finally recovers the money over a period of time. The bad bank is not involved in lending and taking deposits, but helps commercial banks clean up their balance sheets and resolve bad loans.
- The takeover of bad loans is normally below the book value of the loan and the bad bank tries to recover as much as possible subsequently.
- Commercial Banks’ Perspective: Commercial banks are saddled with high NPA (Non-Performing Assets/loans) levels, setting up of the Bad bank will help.
- That’s because such a bank will get rid of all its toxic assets, which were reducing its profits, in one quick move.
- When the recovery money is paid back, it will further improve the bank’s position. Meanwhile, it can start lending again.

14. Unlock India's Food Processing Potential

Why in News?

- One of the largest producers of fruits and vegetables in the world to boost processed food in large quantities, India has formulated a unique Production-Linked Incentive Scheme (PLIS) which aims to incentivise incremental sales.

Progress made so far:

- A sum of ₹10,900 crore has been earmarked for the scheme.
- Beneficiaries have been obliged to commit a minimum investment while applying for the scheme. Under Category 1, firms are incentivised for incremental sales and branding/marketing initiatives taken abroad.
- Assuming the committed investment as a fixed ratio of their sales and undertaking execution of at least 75% of the projects, the sector is likely to witness at least ₹6,500 crore worth of investment over the next two years.
- New alternatives are being explored which have immense potential in replacing the staples of rice and wheat in the form of Nutri-cereals, plant-based proteins, fermented foods, health bars and even fresh fortified foods for pets.
- By welcoming the new brands in the category, PLIS aims to create an Enabling Ecosystem for innovation in both food Products and Processes.

Way Forward:

• **Improve Infrastructure:**

- ✓ A study in the United States concluded that a 1% increase in public infrastructure increased the food manufacturing output by 0.06% in the longer run.
- ✓ This correlation holds good for India too as a higher investment is being concentrated in States such as Andhra Pradesh, Gujarat, Maharashtra, Tamil Nadu and Uttar Pradesh.
- ✓ These States as reported by the Good Governance Index 2020-21, ranked among the highest in the 'Public Infrastructure and Utilities' parameter with 'Connectivity to Rural Habitations' showing the highest improvement.
- ✓ Improve profitability in export:
- ✓ For the exports market, it is now established that sales promotion is positively related to increased sales volume, but inversely related to profitability.
- ✓ To bridge this gap, of the 13 key sectors announced under the PLIS, the 'Food Processing PLIS' earmarks a dedicated Category 3 for supporting branding and marketing activities in foreign markets.

-
- ✓ This ensures that India's share of value-added products in the export's basket is improved, and it may leverage on its unique geographical proximity to the untapped markets of Europe, the Middle East/West Asia, Africa, Oceania and Japan.

Access to Credit:

- The access of micro, small, and medium enterprises (MSMEs) to finance is a perennial problem in the country, predominating due to a lack of proper credit history mechanism for MSMEs.
- Smart financing alternatives such as peer-to-peer (P2P) lending hold potential for micro-food processors.
- Access to working capital has in theory been addressed by the Trade Receivables Discounting System (TReDS), a platform for facilitating the financing/discounting of trade receivables of MSMEs through multiple financiers.
- With growing populations, changing food habits and unrestricted use of natural resources, nations must come together and lay out a road map for a common efficient food value chain.

15. US Federal Reserve (central bank of US)

Why in News?

- The US Federal Reserve (central bank of US) has recently signalled a possible hike in interest rates. This has led to a nervous reaction in Indian markets.

Highlights:

- Rate hikes by the Federal Reserve affects not only the US economy, but also shapes the Macroeconomic Outlook and exerts a certain degree of influence on the monetary policies in other Emerging Economies.
- Emerging economies such as India tend to have higher inflation and higher interest rates than those in developed countries such as the US and many of the (primarily Western) European nations.
- As a result, financial institutions, particularly Foreign Institutional Investors (FIIs) would want to borrow money in the US at low interest rates in dollar terms and then invest that money in government bonds of emerging countries such as India in local currency terms to earn a higher rate of interest.
- When the US Federal raises its domestic interest rates, the difference between the interest rates of the two countries decreases.

- This makes India less attractive for the currency carry trade, consequently, some of the money may be expected to move out of the Indian markets and flow back to the US.
- A currency carry trade is a strategy whereby a high-yielding currency funds the trade with a low-yielding currency.
- Therefore, decreasing the value of India's currency against the US dollar.
- Bond yields will rise due to growing dollar shortage in the global market.
- Previously, in India, the debt and equity markets witnessed outflows of over Rs 40,000 crore rupees, due to the strengthening dollar and uncertainties perpetrated by the trade war between the US, China, European Union, and other major nations.
- India's exports on the other hand, notably IT and IT-enabled services – will benefit to some extent from a stronger dollar with respect to the rupee.
- However, the same benefit may not fully accrue to exporters due to strong competition in the export market.



2. ENVIRONMENT

1. Tonga Volcanic Eruption

Why in News?

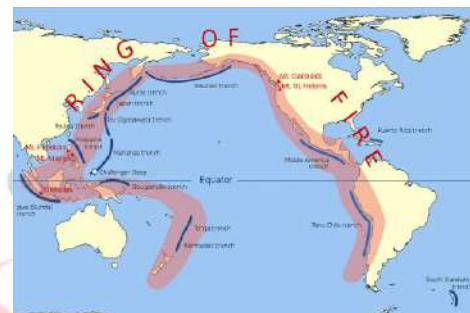
- Recently, a volcano erupted in the southern Pacific Island of Tonga, which triggered Tsunami waves around the Pacific.

About the News:

- It is an Undersea Volcanic Eruption consisting of two small uninhabited islands, Hunga-Ha'apai and Hunga-Tonga.
- The Tonga Islands occur along the Ring of Fire—a perimeter of heightened volcanic and seismic activity that encircles the Pacific Ocean basin.

What is the Ring of Fire?

- The Ring of Fire is a Pacific region home to over 450 volcanoes, including three of the world's four most active volcanoes – Mount St. Helens in the USA, Mount Fuji in Japan and Mount Pinatubo in the Philippines. It is also sometimes called the circum-Pacific belt.
- Around 90% of the world's Earthquakes occur in the Ring of Fire, and 80% of the world's Largest Earthquakes.



Location:

- It stretches along the Pacific Ocean coastlines, where the Pacific Plate grinds against other, smaller tectonic plates that form the Earth's crust – such as the Philippine Sea plate and the Cocos and Nazca Plates that line the edge of the Pacific Ocean.
- The 40,000 kilometre horse-shoe-shaped ring loops from New Zealand to Chile, passing through the coasts of Asia and the Americas on the way.

Risk:

- The people most at risk from activity in the Ring of Fire are in the US west coast, Chile, Japan and island nations including the Solomon Islands.
- These areas are most at risk because they lie on so-called subduction zones – which are boundaries that mark the collision between two of the planet's tectonic plates.

How was the Ring of Fire formed?

- The Ring of Fire is the result from subduction of Oceanic Tectonic Plates beneath lighter Continental Plates. The area where these Tectonic Plates meet is called a subduction zone.

Why does the Ring of Fire Trigger Earthquakes?

- The world’s deepest earthquakes happen in subduction zone areas as tectonic plates scrape against each other – and the Ring of Fire has the world’s biggest concentration of subduction zones.
- As energy is released from the earth’s molten core, it forces tectonic plates to move and they crash up against each other, causing friction. The friction causes a build-up of energy and when this energy is finally released it causes an earthquake. If this happens at sea it can cause devastating tsunamis.
- Tectonic plates usually only move on average a few centimetres each year, but when an earthquake strikes, they speed up massively and can move at several metres per second.



2.1. ENVIRONMENT SNIPPETS

1. Preparing for a green energy shift in 2022

Why in News?

- Political leaders find themselves currently amid a messy reality. The seemingly “irresistible force” for clean energy has met, it would appear, the “immovable object” of an embedded fossil fuel energy system.

Changes in the Energy Sector in 2021:

- Commitment to Net-zero: One hundred and thirty-three countries pledged to a “net-zero carbon emissions date” and most governments, corporates and civic entities have shown determination to “phase down” and eventually phase out fossil fuels from their energy basket.
- Price volatility: The petroleum market seesawed and was expectedly volatile.
- High price: Natural gas prices reached stratospheric levels as demand exceeded supplies and geopolitics compounded the Imbalance.

Five Trends that will shape the Emergent Energy Landscape:

- **Transition to clean energy will be long and expensive**
 - ✓ Redesign and rebuilding: The fossil fuel-based economic system will have to be redesigned and, in parts, rebuilt for clean energy to achieve scale.
 - ✓ The process will take decades and require massive capital infusion.

- ✓ No country or multilateral institution can finance this transition individually.
- ✓ The world needs to collaborate: The world will have to collaborate and if it fails to do so, the financing deficit will push back the transition even further.
- ✓ Fossil fuels will dominate the energy basket during the transition
- ✓ Fossil fuels will dominate the energy basket during this transition phase.
- ✓ Contributing factors: As has been the case so far, its market will be defined by the “fundamentals” of demand, supply and geopolitics and the “non-fundamentals” of exchange rates and speculative trade.
- ✓ The price movements will be sharp, volatile and unexpected.
- ✓ The resurgence of market influence of OPEC plus after private companies move beyond fossil fuel. The “OPEC plus” will resurge in market influence.
- ✓ The low-cost, high resource petrostates (Saudi Arabia, the Gulf nations, Iraq, Iran, Russia) will, in particular, gain greater control over the petroleum market as private companies move beyond fossils under pressure from shareholders and regulators.

Transition will Create New Centres of Energy Power:

- The Democratic Republic of Congo controls, more than 50 per cent of the global supply of cobalt; Australia holds a comparably large share of the lithium market; and China controls the mining, processing and refining of rare earth minerals.
- It is difficult to tell how and when these countries will exercise their market power but it is clear that the “green transition” will create new centres of energy power.
- Nationalism and political opportunism will influence energy policy
- The US and China are currently embroiled in a “Cold War” over technology, trade, cyber issues and the South China Sea.
- The US and China appear to be in a similar face-off. But that has not come in the way of their Energy Relations. A few weeks ago, the two countries decided to coordinate the release of oil stocks from their strategic reserves to cool off the oil market.
- The underlying reality is that national self-interest and short-term political ambition will be the defining determinant of future energy supply relations cutting across values and rhetoric.

Suggestions for India:

- Nurture relations with traditional suppliers: India must assiduously Nurture Relations with Our Traditional Suppliers of oil and gas.
- It must not assume their role in the energy market will diminish.

- Increase storage capacity of strategic reserves: It should accelerate the build-up of the storage capacity for oil and gas; the latter to hold strategic oil reserves, the former to store Gas for inter alia conversion to blue hydrogen. Ecosystem for search and development of minerals required for clean energy: It must create a Facilitative Ecosystem for the search and development of the minerals and metals required for clean energy.
- Clean energy supply chain: It should create a “clean energy aatmanirbhar supply chain”.

2. Bioenergy Crop

Why in News?

- A New Study has recently found that converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated.

Highlights:

- The researchers simulated the biophysical climate impact of a range of future bioenergy crop cultivation scenarios. Eucalyptus, poplar, willow, miscanthus and switchgrass were the bioenergy crops used in the study.
- The study also demonstrated the importance of the crop type choice, the original land use type upon which bioenergy crops are expanded, the total cultivation area and its spatial distribution patterns.
- Crops from which Biofuels are produced or manufactured are called Biofuel crops or Bioenergy Crops. “Energy crops” is a term used to describe biofuel crops.
- Wheat, corn, main edible oilseeds/edible oils, sugarcane, and other crops are among them.
- Biofuels have a number of advantages over fossil fuels, including the ability to burn cleaner and emit fewer pollutants and greenhouse gases, such as carbon dioxide, into the sky. They’re also environmentally friendly, and energy corporations frequently mix Biofuels with gasoline
- Cultivating eucalypt shows generally cooling effects that are more robust than if switchgrass is used as the main bioenergy crop, implying that eucalypt is superior to switchgrass in cooling the lands biophysically.
- Cooling effects are more for eucalypt and the greatest warming effects are seen for switchgrass.
- Replacing forests with switchgrass not only results in biophysical warming effects but could also release more carbon through deforestation than converting other short vegetation to bioenergy crops.

3. Red Sanders

Why in News?

- Red Sanders (Red Sandalwood) has fallen back into the 'endangered' category in the International Union for Conservation of Nature's (IUCN) Red List.

Red Sanders:

- The species, *Pterocarpus santalinus*, is an Indian endemic tree species, with a restricted Geographical Range in the Eastern Ghats.
- It is endemic to a distinct tract of forests in Andhra Pradesh.
- It is mainly found in Chittoor, Kadapa, Nandhyal, Nellore, Prakasam districts of Andhra Pradesh.
- It was classified as 'near threatened' in 2018 and has now joined the 'endangered' list once again in 2021.
- It is listed under Appendix II of CITES and is banned from international trade.

Status of Legal Protection in India:

- The Union Environment Ministry had decided to keep Red Sanders (red sandalwood) OUT of the Schedule VI of Wild Life Protection Act, 1972, arguing that this would discourage the cultivation of the rare plant species.
- Schedule VI regulates and restricts the cultivation, possession, and sale of a rare plant Species.

Significance of listing:

- It was a moment of celebration when the species was lifted off from the endangered Category for the first time since 1997.
- Over the last three generations, the species has experienced a population decline of 50-80 Percent.
- It is also scheduled in appendix II of the CITES and Wildlife Protection Act.
- Threats to this species:
- Red Sanders are known for their rich hue and therapeutic properties, are high in demand across Asia, Particularly in China and Japan.
- They are used in cosmetics and medicinal products as well as for making furniture, woodcraft and Musical Instruments.
- Its popularity can be gauged from the fact that a tonne of Red Sanders costs anything between Rs 50 lakh to Rs 1 crore in the international market.

Red List Categories of IUCN:

- Species are classified by the IUCN Red List into nine groups specified through criteria such as rate of decline, population size, area of geographic distribution, and degree of population and Distribution Fragmentation. They are:
- Extinct (EX) – beyond reasonable doubt that the species is no longer extant.
- Extinct in the wild (EW) – survives only in captivity, cultivation and/or outside native Range, as presumed after Exhaustive Surveys.
- Critically endangered (CR) – in a particularly and extremely critical state.
- Endangered (EN) – very high risk of extinction in the wild, meets any of criteria A to E for Endangered.
- Vulnerable (VU) – meets one of the 5 red list criteria and thus considered to be at high risk of unnatural (human-caused) extinction without further human intervention.
- Near threatened (NT) – close to being at high risk of extinction in the near future.
- Least concern (LC) – unlikely to become extinct in the near future.
- Data deficient (DD)

4. National Ambient Air Quality Standards (NAAQS)

Why in News?

- Delhi and most of the other non-attainment cities under the National Clean Air Programme (NCAP) have shown only a marginal improvement, said a new analysis released.

NCAP:

- The NCAP was implemented across India in 2019 to reduce particulate matter levels in 132 cities by 20-30% in 2024. Cities are declared non-attainment if they consistently fail to meet the National Ambient Air Quality Standards (NAAQS) over a five-year period.

What are NAAQ Standards?

- The mandate provided to the Central Pollution Control Board (CPCB) under the Air (Prevention and Control of Pollution) Act empowers it to set standards for the quality of air. Hence the current National Ambient Air Quality Standards were notified in November 2009 by the CPCB.
- Prior to this, India had set Air Quality standards in 1994, and this was later revised in 1998.

- The 2009 standards further lowered the maximum permissible limits for pollutants and made the standards uniform across the nation.
- Earlier, less stringent standards were prescribed for industrial zones as compared to Residential Areas.
- **Pollutants covered:**
 - ✓ Sulphur Dioxide (SO₂)
 - ✓ Nitrogen Dioxide (NO₂),
 - ✓ Particulate Matter (size less than 10 μm) or PM 10
 - ✓ Particulate Matter (size less than 2.5 μm) or PM_{2.5}
 - ✓ Ozone (O₃)
 - ✓ Carbon Monoxide (CO)
 - ✓ Ammonia (NH₃)
- **(Air Pollutants that most of us NEVER heard of:)**
 - ✓ Lead
 - ✓ Benzene (C₆H₆)
 - ✓ Benzo(a)Pyrene (BaP)
 - ✓ Arsenic(As)
 - ✓ Nickel (Ni)

5. Darvaza Gas Crater

Why in News?

- Turkmenistan President has ordered experts to find a way to extinguish a fire in a huge natural gas crater, the Darvaza gas crater also known as the 'Gateway to Hell'.



Darvaza Gas Crater:

- Located in the Karakum desert, 260 kilometres away from Turkmenistan's capital, Ashgabat, the crater has been burning for the last 50 years.
- The crater is 69 metres wide and 30 metres deep.
- While the details of the origin of the crater are contested but it has been said that the crater was created in 1971 during a Soviet drilling operation.
- In 1971, Soviet geologists were drilling for oil in the Karakum desert when they hit a pocket of natural gas by mistake, which caused the earth to collapse and ended up forming three Huge Sinkholes.

Why is it Flamed?

- This pocket of natural gas contained methane, hence to stop that methane from leaking into the atmosphere, the scientists lit it with fire, assuming the gas present in the pit would burn out within a Few Weeks.
- The scientists seemed to have misjudged the amount of gas present in the pit, because the crater has been on fire for five decades now.

A Popular Tourist Attraction:

- The crater has become a significant tourist attraction in Turkmenistan.
- In 2018, the country's president officially renamed it as the "Shining of Karakum".
- Why did Turkmenistan order to extinguish it?
- Calling it a human-made crater, it has negative effects on both environment and the health of the people living nearby.
- It also ends up losing valuable natural resources for which could fetch significant profits.

How Harmful are Methane Leaks?

- Methane is the primary contributor to the formation of ground-level ozone, a hazardous air pollutant and greenhouse gas, exposure to which causes 1 million premature deaths Every Year.
- Methane is also a powerful greenhouse gas. Over a 20-year period, it is 80 times more potent at warming than carbon dioxide.

6. A Planetary Pressure-adjusted Human Development Index (HDI)

Why in News?

- Ever since the UNDP took up computation of the HDI in 1990, there have been Adjustments such as inequality-adjusted HDI. The environment is one such issue now considered to be an essential component to be factored in to measure human development.

Planetary Pressure-Adjusted Human Development Index:

- The purpose of the planetary pressure adjusted HDI, or PHDI, is to communicate to the larger society the risk involved in continuing with existing practices in our resource use and environmental management, and the retarding effect that environmental stress can perpetuate on development.
- When planetary pressure is adjusted, the world average of HDI in 2019 came down from 0.737 to 0.683.

- PHDI of India: In the case of India, the PHDI is 0.626 against an HDI of 0.645 with an Average per capita CO₂ emission (production) and material footprints of 2.0 tonnes and 4.6 tonnes, respectively.
- India gained in global rankings by eight points (131st rank under HDI and 123rd rank under PHDI), and its per capita carbon emission (production) and material footprint are well below the global average.

India's Twin Challenge:

- India faces the twin challenges of poverty alleviation and environmental safeguarding.
- India's natural resource use is far from efficient, environmental problems are growing, and the onslaught on nature goes on unabated with little concern about its fallout.
- At the same time, India has 27.9% people under the Multidimensional Poverty Index ranging from 1.10% in Kerala to 52.50% in Bihar, and a sizable section of them directly depend on natural resources for their sustenance.

India's Performance on SDGs:

- The SDGs have acquired high priority in the context of the issue of climate change and its impact on society. The Sixth Assessment Report (AR6) of IPCC 2021 laid stress on limiting global temperature rise at the 1.5° C level and strengthening the global response to the threat of climate change, sustainable development, and efforts to Eradicate Poverty.
- 'No poverty' and 'Zero hunger' are the First and second SDGs.
- According to NITI Aayog (2020-21), out of 100 points set for the grade of Achiever, India scored 60 (Performer grade, score 50-64) for no poverty and 47 (Aspirant grade, score 0-49) for zero hunger, with wide State-level variations.
- India's score in the SDGs of 8, 9, and 12 ('Decent work and economic growth'; 'Industry, Innovation and Infrastructure' and 'Responsible Consumption and Production', respectively) – considered for working out planetary pressure – are 61 (performer), 55 (performer) and 74 (front runner), respectively.

Way Forward:

- Nature-based solutions: It is now well established that there are interdependencies of Earth System processes including social processes, and their relationships are non-linear and dialectic.
- Therefore, the central challenge is to nest human development including social and Economic Systems into the ecosystem, and biosphere building on a systematic approach to nature-based solutions that put people at the core.

- Integrated perspective and local level involvement: Social and environmental problems cannot be addressed in isolation anymore; an integrated perspective is necessary.
- This can be conceived and addressed at the local level, for which India has Constitutional Provisions in the form of the 73rd and 74th Amendments.

7. Ring of Fire

Why in News?

- A Volcano erupted in the southern Pacific Island of Tonga, which recently triggered Tsunami waves around the Pacific.

Highlights:

- The Tonga Islands occur along the Ring of Fire—a perimeter of heightened volcanic and seismic activity that encircles the Pacific Ocean basin
- It is an Undersea Volcanic Eruption consisting of two small uninhabited islands, Hunga-Ha'apai and Hunga-Tonga.
- The Hunga-Tonga-Hunga-Ha'apai volcano has erupted regularly over the past few decades
- During events in 2009 and 2014/15, hot jets of magma and steam exploded through the waves. But these eruptions were small, dwarfed in scale by the January 2022 events.
- This is one of the massive explosions the volcano is capable of producing roughly every thousand years.
- One of the reasons for it being highly explosive is the Fuel-Coolant interaction. Huge volcanic eruptions can sometimes cause temporary global cooling as sulfur dioxide is pumped into the stratosphere. But in the case of the Tonga eruption, initial satellite measurements indicated the amount of sulfur dioxide released would only have a tiny effect of perhaps 0.01 Celsius global average cooling.
- The eruption altered atmospheric pressure that may have briefly helped clear out the fog in Seattle, in the United States.
- The waves crossed the Pacific, drowning two people in Peru and causing minor damage from New Zealand to Santa Cruz, California.
- The US Geological Survey estimated the eruption caused the equivalent of a magnitude 5.8 Earthquake.

8. Rare Earth Metals

Why in News:

- The US has recently proposed a law aiming to end China's alleged "chokehold" on rare-Earth Metal Supplies.

Highlights:

- The Bill aims to "protect the US from the threat of rare-earth element supply disruptions, Encourage Domestic production of those elements, and reduce its reliance on China.
- The law would require the creation of a "strategic reserve" of rare earth minerals by 2025.
- That reserve would be tasked with responding to the needs of the army, the tech sector and other essential infrastructure "for one year in the event of a supply disruption".
- They are a set of seventeen metallic elements. These include the fifteen lanthanides on the periodic table in addition to scandium and yttrium that show similar physical and chemical properties to the lanthanides.
- The 17 Rare Earths are cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), promethium (Pm), samarium (Sm), scandium (Sc), terbium (Tb), thulium TM, ytterbium (Yb), and yttrium (Y).
- Even futuristic technologies need these REEs (For example high-temperature superconductivity, safe storage and transport of hydrogen for a post-hydrocarbon economy, environmental global warming and energy efficiency issues).
- They are called 'rare earth' because earlier it was difficult to extract them from their oxides forms technologically.
- They occur in many minerals but typically in low concentrations to be refined in an economical manner.
- India has granted government corporations such as IREL a monopoly over the primary mineral that contains REEs: monazite beach sand, found in many coastal states.
- IREL produces rare earth oxides (low-cost, low-reward "upstream processes"), selling these to foreign firms that extract the metals and manufacture end products (high-cost, high-reward "downstream processes") elsewhere.
- IREL's focus is to provide thorium — extracted from monazite — to the Department of Atomic Energy.

9. Domestic Hazardous Waste

Why in News?

- Recently, Segregation of domestic hazardous waste remains a distant dream for most Indian cities in absence of robust framework and infrastructure.

Highlights:

- Domestic Hazardous Waste is any chemical or product that can cause serious illness or pose an environmental or health threat if improperly stored, transported or disposed of.
- Indore is the only city in the country that safely handles its domestic hazardous waste.
- When hazardous waste is disposed of in the trash, down the drain, or on the ground, our water and soils can be contaminated or trash collectors can be harmed.
- Most products labelled dangerous, flammable, poison, combustible and corrosive are considered Hazardous Waste.
- **Examples:** Auto batteries, Fertilizers, Batteries (non-alkaline), Paint.
- In 2020, a significant level of toxic heavy metals and persistent organic contaminants like Pesticides have been found by the researchers from the Indian Institute of Technology (IIT) Delhi and IIT Bombay.
- They analysed fine particles from eight dump sites across the country.
- Household waste is governed by the rules outlined in the Solid Waste Management Rules 2016. These rules divide household waste into dry and wet waste.
- Wet waste is categorised as any waste that decomposes or degrades by itself.
- All other waste falls into dry waste according to the rules.

10. Declaration on Forests and Land Use

Why in News?

- At COP-26 in Glasgow, countries got together to sign the Declaration on Forests and Land Use (or the Deforestation Declaration). However, India was among the few countries that did not sign the Declaration.

What is this Deforestation Declaration?

- It was signed by 142 countries, which represented over 90 percent of forests across the world. The declaration commits to halt and reverse forest loss and land degradation by 2030 while delivering sustainable development and promoting an inclusive rural Transformation.

- The signatories committed \$19 billion in private and public funds to this end.

Why did India abstain from joining?

- India had concerns about the linkage the declaration makes between deforestation, Infrastructure development and trade.
- Any commitment to the environment and climate change should not involve any reference to trade, cited India.
- Analysts in India have linked the decision to a proposed amendment to the Forest Conservation Act 1980 that would ease the clearances presently required for acquiring forest land for new infrastructure projects.
- India abstained from many things
- A look at India's positions on some other recent critical pledges and decisions related to climate change reveals a clear pattern of objections or absence.
- At CoP26, India was not part of the dialogue on Forests, Agriculture and Commodity Trade (FACT). FACT, which is supported by 28 countries seeks to encourage "sustainable development and trade of agricultural commodities while protecting and managing sustainably forests and other critical ecosystems".
- India also voted against a recent draft resolution to allow for discussions related to Climate change and its impact on international peace and security to be taken up at the UNSC.

Why should India join this Declaration?

- Broadly speaking, all of India's objections are based on procedural issues at multilateral fora. Although justifiable on paper, these objections seem blind to the diverse ways in which climate change is linked to Global Trade, Deforestation, Agriculture, and International Peace, among Other Issues.
- For context, consider India's palm oil trade. India is the largest importer of crude palm oil in the world.
- Palm oil cultivation, covering roughly 16 million acres of land in Indonesia and Malaysia, has been the biggest driver of deforestation in the two countries.

11. Towards Low Emissions Growth

Why in News?

- While many developing Countries made net-zero pledges at COP26 in Glasgow, they face Enormous Developmental Challenges in their Attempts to grow in a climate-constrained World.

Developmental Challenges for India:

- For India, the national context is shaped by high youth unemployment, millions more entering the workforce each year, and a country hungry for substantial investments in hard infrastructure to industrialise and urbanise.
- Growth with low emission footprint: India's economic growth in the last three decades, led by growth in the services sector, has come at a significantly lower emissions footprint.
- But in the coming decades, India will have to move to an investment-led and manufacturing-intensive growth model to create job opportunities and create entirely new cities and infrastructure to accommodate and connect an increasingly urban population.
- All of this requires a lot of energy. Can India do all of this with a low emissions footprint?
- What could India do to pursue an industrialization pathway that is climate-compatible?
- A coherent national transition strategy is important in a global context where industrialised countries are discussing the imposition of carbon border taxes while failing to provide developing countries the necessary carbon space to grow or the finance and technological assistance necessary to decarbonise.
- What India needs is an overarching green industrialisation strategy that combines laws, policy instruments, and new or reformed implementing institutions to steer its decentralised economic activities to become climate-friendly and resilient.
- Issues with India's domestic manufacturing of renewable technology components
- India's industrial policy efforts to increase the domestic manufacturing of renewable energy technology components have been affected by policy incoherence, poor management of economic rents, and contradictory policy objectives.
- India managed to create just a third of jobs per megawatt that China has managed to in its efforts to promote solar PV and wind technologies.
- China has created more jobs in manufacturing solar and wind components for exports than domestic deployment. India could have retained some of those jobs if it were strategic in promoting these technologies. Opportunities in decarbonising transport and industry sector. Technologies needed to decarbonise the transport and industry sectors provide a significant opportunity for India.
- However, India's R&D investments in these emerging green technologies are non-existent.
- PLI is a step in right direction: The production-linked incentives (PLIs) under 'Aatmanirbhar Bharat' are a step in the right direction for localising clean energy manufacturing activities.

- Focus on R&D: Aligning existing RD&D investments with the technologies needed for Green Industrialisation is crucial for realising quantum jumps in economic activities.
- Encourage private entrepreneurship: India also needs to nurture private entrepreneurship and experimentation in clean energy technologies.
- Besides China, Korea's green growth strategy provide examples of how India could gain economic and employment rents from green industrialisation without implementing restrictive policies.

Way Forward:

- India should set its pace based on its ability to capitalise on the opportunities to create wealth through green industrialisation.
- India should follow a path where it can negotiate carbon space to grow, buying time for the hard-to-abate sectors; push against counterproductive WTO trade litigations on decarbonisation technologies; all while making R&D investments in those technologies to ensure that it can gain economic value in the transition.

12. Regional Rapid Transit System (RRTS)

Why in News?

- The officials of Regional Rapid Transit System (RRTS) has recently estimated that RRTS will reduce CO₂ Emissions by taking around 1.5 Lakh Private Vehicles off the Road.

Highlights:

- The corridor will start from Sarai Kale Khan in Delhi, pass through Ghaziabad, and reach Modipuram in Meerut (Uttar Pradesh).
- The RRTS, the first of its kind in the national capital, will run at a speed of 100 km per hour and commuters will reach Meerut in 50-60 minutes.
- RRTS is a new, dedicated, high speed, high capacity, comfortable commuter service connecting regional nodes in NCR.
- RRTS is different from conventional Railway as it will provide reliable, high frequency, point to point regional travel at high speed along dedicated path way.
- RRTS is different from metro as it caters to passengers looking to travel a relatively longer distance with fewer stops and at higher speed.
- **Environment Friendly:** The corridor is estimated to reduce 2.5 lakh CO₂ tonnes/year of total annual greenhouse gas emissions, making the city a cleaner and a much better place to live.

- **Economic Development:** It is estimated to increase the share of public transportation usage along the corridor from 37% to 63%.
- High-speed connectivity will result in balanced economic development across the region, leading to economic benefits to all strata of society and many nodes of development rather than all economic activity happening at one place.
- **Sustainable Urbanization:** The project will serve as a demonstration for developing high-capacity rapid urban transit corridors in other urban areas of India.
- It will help in reducing traffic congestion and total emissions from the transport sector in NCR.

13. 'Fly Ash Management and Utilisation Mission

Why in News?

- The National Green Tribunal (NGT) has recently directed the constitution of a 'Fly Ash Management and Utilisation Mission.

Highlights:

- The order by the NGT takes note of the 'unscientific handling and storage' of the fly ash by coal thermal power stations.
- For example, the draining of industrial effluents and fly ash in the Rihand Reservoir.
- The Fly Ash Management and Utilisation Mission, besides monitoring the disposal of annual stock of unutilised fly ash, will also see how 1,670 million tonnes of legacy (accumulated) fly ash could be utilized in the least hazardous manner and how all safety measures could be taken by the power plants.
- The Mission will hold its first meeting within one month to assess the fly ash management situation in coal power plants and to prepare action plans to build road maps for ash utilisation by individual plants.
- These meetings shall be conducted each month, for a year.
- To 'coordinate and monitor issues relating to the handling and disposal of fly ash and associated issues.'
- The Mission is to be jointly headed by the secretaries of the Union Ministry of Environment, Forest & Climate Change (MoEF&CC), Union Ministry of Coal and Power, keeping on board chief secretaries of respective states where the mission is being implemented.
- The secretary of MoEF&CC will be the nodal agency for coordination and compliance.

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- Fly Ash Notification 2021 was issued under the Environment (Protection) Act 1986.
 - Prohibiting dumping and disposal of fly ash discharged from coal or lignite based thermal power plants on land or into water bodies, the Centre has made it mandatory for such plants to ensure 100% utilization of ash in an eco-friendly manner, and introduced for the first time a penalty regime for non-compliance based on 'polluter pays' principle.



3. POLITY & GOVERNANCE

1. 8 Lakh Income reasonable cap for EWS Quota, Centre tells SC

Why in News?

- A Government Committee Report in the Supreme Court has said that “income” is a “feasible criterion” for Defining the “Economical Weaker Sections” (EWS) in society and the annual family income of ₹8 lakh is a “reasonable” threshold to determine EWS in order to extend reservation in Admissions and Jobs.

About the News:

- The committee report as part of a government affidavit concluded that a feasible criterion for defining EWS can be based on income [family income]. A threshold of ₹8 lakh of annual family income, in the current situation, seems reasonable for determining EWS.
- The committee did not agree with the notion that the Centre had “mechanically adopted” ₹ 8 lakh as a number because it was also used for the OBC creamy layer cut-off. It said the Income Criterion for EWS was “more stringent” than the one for the OBC creamy layer.

What is the Issue?

- The report is the result of the Supreme Court’s repeated grilling of the government, since October, to explain how it zeroed in on the figure of ‘₹8 lakh’ as the annual income criterion to identify EWS among forward classes of society for grant of 10% reservation in NEET medical admissions under the All India Quota (AIQ) category.
- The court was hearing a batch of petitions filed by NEET aspirants challenging a July 29 notification of the Centre announcing 27% quota to OBCs and 10% reservation to EWS in AIQ. The Supreme Court’s query was significant as the One Hundred and Third Constitutional Amendment of 2019, which introduced the 10% EWS quota, is itself under challenge before a larger Bench.
- The Amendment is under question for making economic criterion as the sole ground for grant of Reservation Benefits.
- On November 25, the Centre had informed the court that it had taken a considered decision to revisit the criteria for determining EWS.
- The Centre had then formed an expert committee comprising Ajay Bhushan Pandey, former Finance Secretary; professor V.K. Malhotra, Member Secretary, ICSSR; and Sanjeev Sanyal, Principal Economic Adviser to the Government of India. The committee had submitted its report on December 31.

What does the Committee's Report Says?

- The Current Gross Annual Family Income limit for EWS of ₹8 lakh or less may be retained. In other words, only those families whose annual income is up to ₹8 lakh would be eligible to get the benefit of EWS reservation.
- The committee said the ₹8 lakh criterion struck a “fine balance” between over-inclusion and inclusion errors.
- The figure ensures that most low-income people who are not required to pay income tax are not excluded and are covered in EWS and at the same time it should not be so high that it becomes over-inclusive by including many incomes tax-paying middle-and high-income families into EWS.
- Though we may not completely eliminate yet we can try to minimise both exclusions as well as inclusion errors. Therefore, considering that the currently effective income tax exemption limit is around ₹8 lakh for individuals, the committee is of the view that the gross annual income limit of ₹8 lakh for the entire family would be reasonable for inclusion into EWS.

What are the Centre's Argument?

- Firstly, EWS's criteria relates to the financial year prior to the year of application whereas the income criterion for the creamy layer in OBC category is applicable to gross annual income for three consecutive years.
- Secondly, in case of OBC creamy layer, income from salaries, agriculture and traditional artisanal professions are excluded from the consideration whereas the ₹8 lakh criteria for EWS includes all sources, including farming. So, despite being the same cut-off number, their composition is different and hence, the two cannot be equated.
- It found no fault in the uniform application of the ₹8-lakh criteria across the country.
- The desirability of a uniform income-based threshold has been upheld by the Supreme Court, and it can be adopted across the country as a matter of Economic and Social Policy.

Who are “Economically Weaker Sections”?

- For the purposes of article 15 and article 16, “economically weaker sections” shall be such as may be notified by the State from time to time **on the basis of family income and other Indicators of Economic Disadvantage.**
- Central Government of India has specified certain criteria for identifying the EWS. This will be a class distinct from the already specified classes of SCs, STs and socially and educationally backward classes (OBCs).

- The EWS quota applies to household with
 - ✓ Annual household income below Rs 8 lakh.
 - ✓ Agriculture land below 5 acres.
 - ✓ Residential house below 1000 sq ft.
 - ✓ Residential plot below 100 yards in notified municipality.
 - ✓ Residential plot below 200 yards in non-notified municipality area.

What are the Implications?

- The 10% reservation will be in addition to the existing cap of 50% reservation for the Scheduled Castes, Scheduled Tribes and the Other Backward Classes, taking total reservation to 60%.
- The quota targets the poor among the upper castes. This will be over and above 50% Mandated by Constitution and hence the need for Constitution amendment Bill.

SC verdict in Indira Sawhney case:

- The proposed law would face roadblocks if challenged in the Supreme Court.
- A nine-judge Constitution Bench of the Supreme Court in the Indira Sawhney case of 1992 specifically answered the question “whether backward classes can be identified only and exclusively with reference to the economic criterion.”
- The constitution bench had categorically ruled that a backward class cannot be determined only and Exclusively with reference to economic criterion.
- The bench had held that Economic Criterion may be a consideration or basis along with, and in addition to, social backwardness, but it can never be the sole criterion.
- The bench in its judgement declared 50% quota as the rule unless extraordinary situations “inherent in the great diversity of this country and the people” happen. Even then, the court stated that extreme caution is to be exercised and a special case should be made out.

2. Don't indulge in Hate Speech, says Vice President

Why in News?

- Vice President M Venkaiah Naidu recently expressed his strong disapproval of attempts to ridicule other Religions and create dissensions in the society, saying every person has the right to Practice and Preach his or her Faith in the Country.

What is Hate Speech?

- According to Law Commission of India (267th report), hate speech is “incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious Belief and the like”

- The report of the Commission Further Clarifies that hate speech is “any word written or spoken, signs, visible representations within the hearing or sight of a person with the Intention to cause fear or alarm, or Incitement to violence.

What are the Constitutional Provisions regarding the Freedom of speech?

- Article 19(1)(a) of the Indian Constitution guarantees freedom of speech and expression. Any restriction on this right shall only be permitted if the speech falls within one of the eight grounds set out in Article 19(2) of the Constitution.
- The freedom of speech under Article 19(1)(a) includes the right to express one’s views and opinions at any issue through any medium, e.g. by words of mouth, writing, printing, picture, film, movie, etc.
- It thus includes the freedom of communication and the right to propagate or publish an opinion.

Can Freedom of speech be curtailed?

- This right is subject to reasonable restrictions being imposed under Article 19(2). Out of the eight different grounds listed on Article 19(2) of the Constitution, the majority of hate speech laws are saved by the ‘public order’ exception. The eight different grounds are;
 - ✓ Security of the State.
 - ✓ Friendly relations with foreign States.
 - ✓ Public order.
 - ✓ Decency and morality.
 - ✓ Contempt of court.
 - ✓ Defamation.
 - ✓ Incitement to an offence, and
 - ✓ Sovereignty and integrity of India.
- Reasonable restrictions on these grounds can be imposed only by a duly enacted law and not by executive action.

Issues of Social Media Misuse:

- **Rumour Mongering:** Fake narratives on online platforms have real life implications. For example, recently in India, online rumours, regarding child traffickers, through popular messaging platform WhatsApp, led to a spate of lynching’s in rural areas.
- **Facilitating Polarisation:** It enables the communalising agents to polarise people for Electoral Gains.

- ✓ For example, during the election campaign of recently conducted Delhi legislative assembly elections, a leader enticed crowds with the use of communalising and violence on social media platforms.
- ✓ Following this, a young man translated these words into reality by opening fire on protesters. This incident highlighted how the spread of hate speech through social media has real consequences.
- **Social Media AI poorly adapted to local languages:** Social media platforms' artificial intelligence based algorithms that filter out hate speeches are not adapted to local languages. Also, the companies have invested little in staff fluent in them. Due to this, it failed to limit the ultranationalist Buddhist monks using Facebook for disseminating hate speech which eventually led to Rohingya massacres.

Way Forward:

- **Harmonising the Laws:** Harmonising the regulations to check misuse of social media are scattered across multiple acts and rules.
- Thus, there is a need to synchronise the relevant provisions under the Indian Penal Code, the Information Technology Act and Criminal Procedure Code.
- **Obeying the regulation by Supreme Court:** In *Shreya Singhal v. Union of India* (2015) case, Supreme Court gave a verdict on the issue of online speech and intermediary liability in India.
 - ✓ It struck down the Section 66A of the Information Technology Act, 2000, relating to restrictions on online speech, on grounds of violating the freedom of speech guaranteed under Article 19(1)(a) of the Constitution of India.
 - ✓ It also gave the direction on how hate content should be regulated and the government should follow this direction, where the user reports to the intermediary and the platforms then takes it down after following due process.
- **Transparency obligation for digital platforms:** Digital platforms can be made to publish the name and amount paid by the author in the event that content is sponsored.
 - ✓ For example, with regard to fake news, France has an 1881 law that defines the criteria to establish that news is fake and being disseminated deliberately on a large scale.
 - ✓ A legal injunction should be created to swiftly halt such news from being disseminated.
- **Establishing regulatory framework:** Responsible broadcasting and institutional arrangements should be made with consultations between social media platforms, media industry bodies, civil society and law enforcement as an ideal regulatory framework.

- ✓ Even global regulations could be made to establish baseline content, electoral integrity, privacy, and data standards.
- **Creating Code of Conduct:** It can be framed without creating an ambiguous statutory structure that could leave avenues for potential legislative and state control.
- ✓ For example, the European Union has also established a code of conduct to ensure non-proliferation of hate speech under the framework of a 'digital single market.'

3. Constitutional Validity of Dam Safety Act challenged in HC

Why in News?

- Dravida Munnetra Kazhagam (DMK) Lok Sabha member S. Ramalingam, representing Mayiladuthurai constituency in Tamil Nadu, has moved the Madras High Court challenging the constitutional validity of Dam Safety Act, 2021 on the grounds that it goes against federalism and is beyond the legislative competence of the Centre.

About the News:

- The litigant claimed that the Act usurped the power of the State governments and placed the operation of specified dams under the control of the Centre.
- He contended that certain terms, including the word 'dam' in the Act, had been deliberately defined vaguely to give unbridled power to the Centre to treat any dam as a 'specified dam'. He also feared that if those definitions were followed, almost all dams in the country would fall under the purview of the Act.
- Referring to Entries 17, 18 and 35 of List II (State list) of the seventh schedule of the Constitution, the petitioner contended that dams would squarely fall within the legislative domain of State Governments.
- The power of the Centre under Entry 56 of List I (Union list) was only with respect to inter-State rivers or river valleys and nothing more, he asserted.
- Entry 56 cannot be stretched to include dams and embankments exclusively within the control of the States. Parliament cannot make a declaration in relation to a subject matter of List II entries when such power is conspicuously absent in List I subjects. Power over the subject 'interstate river and river valley' cannot be confused with the control over dams.
- Claiming that the State governments would be in a better position than the Centre to take a call on dam safety, the legislator told the court that the Act under challenge, if not nullified, would have an adverse impact on agriculture, fisheries, hydro power generation, provision of drinking water to the people and so on.

About Dam Safety Act, 2021:

- The Act provides for surveillance, inspection, operation and maintenance of dams to prevent disasters, and institutional mechanisms to ensure safety.
- It applies to over 5,000 dams across the country, many of which are currently in poor conditions.
- It has been met with significant opposition, particularly from several states that claim the Act oversteps the Centre's mandate.

What is its Constitutional Validity?

- According to Entry 17 of State List, the states are eligible to make laws on irrigation, water supply, canals, embankments, drainage, water power and water storage.
- According to Entry 56 of the Union List, the Parliament is allowed to make laws on regulation of river valleys and inter state rivers.
- Article 252 allows the Parliament to make laws on subjects in State list if two or more states pass resolution requiring a law. In this issue, West Bengal and Andhra Pradesh have passed resolution asking for a law on dam safety.

Which dams are Covered?

- All dams in India with a height above 15 metres come under the purview of the Act.
- Dams between 10 to 15 metres of height are also covered but only if they meet certain other specifications in terms of design and structural conditions.

National Committee on Dam Safety:

- The Act provides for the constitution of a National Committee on Dam Safety (NCDS) which is to be chaired by the Central Water Commissioner (CWC).
- The other members of the NCDS will be nominated by the Centre and will include up to 10 representatives of the Centre, 7 state government representatives, and 3 experts on dam safety.
- The NCDS is to formulate policies for dam safety and to prevent dam failures.
- In the event of a dam failure, the NCDS will analyse why the failure occurred, and suggest changes in dam safety practices to ensure there aren't any Repetitions.

National Dam Safety Authority (NDSA):

- The Act provides for the formation of a NDSA which will be responsible for implementing the policies of the NCDS, and will resolve issues between State Dam Safety Organisations (or SDSOs) and dam owners.

- The NDSA will also specify regulations for the inspection of dams and will provide accreditation to the various agencies working on the structure of dams and their Alteration.

State Dam Safety Organisations (SDSOs)

- The Act will also result in the establishment of SDSOs, and State Committees on Dam Safety (SCDSs).
- The jurisdiction of the SDSOs will extend to all dams in that specific state.
- SDSOs will be in charge of scrutinizing dams under their jurisdiction and maintaining a database of the same.
- The SCDS will review the work of the SDSO, and will also have to assess the impact of dam-related projects on upstream and downstream states.
- The NDSA will, in some cases, possess this jurisdiction, for example, if a dam owned by one state is situated in another or crosses multiple states, or if a dam is owned by a central public sector undertaking.
- The Act gives the Central government the power to amend the functions of any of the above bodies through a notification, whenever it is deemed necessary to do so.

How does Act change the Functioning of Dams?

- If the Act is made into a law, then dam owners will have to provide a dam safety unit in each dam.
- The dam safety unit will be required to inspect the dam before and after the monsoon session, and also during and after natural disasters such as earthquakes and floods.
- The Act requires dam owners to prepare EMERGENCY action plans. Risk-assessment studies will also have to be undertaken by owners, regularly.
- At specified, regular intervals, and in the event of either a modification to the dam's structure or a natural event that may impact the structure, dam owners will have to produce a comprehensive safety evaluation by experts.

4. Denial of FCRA to MoC Challenged

Why in News?

- A U.S.-incorporated organisation, Global Peace Initiative, and its founder, evangelist K.A. Paul, have approached the Supreme Court challenging the refusal of the government to renew the registration of Mother Teresa's Missionaries of Charity under the Foreign Contribution Regulation Act (FCRA).

About the News:

- The NGO registered in Kolkata has more than 250 bank accounts across the country to utilise the foreign funds.
- Some of the biggest donors are Missionaries of Charity in the U.S.A and United Kingdom that contributed over ₹15 crore to MoC, India, for “primary health care, education assistance, treatment of leprosy patients” among others.
- MHA said in a statement that the renewal was refused for not meeting the eligibility conditions and no request / revision application has been received from Missionaries of Charity (MoC) for review of this refusal of renewal.
- The registration was not renewed purportedly on the basis of some “adverse inputs”, the writ petition said. “The cancellation of the license of a renowned charitable organisation like the Missionaries of Charity on vague grounds such as 'adverse inputs' will have a chilling effect on all other Non- Governmental Organisations,” it said.
- The plea has also urged the court to quash the government's direction to not renew the registration of “close to 6,000 NGOs”.

About Foreign Contribution (Regulation) Act (FCRA), 2010:

- Foreign funding of voluntary organizations in India is regulated under FCRA act which is implemented by the Ministry of Home Affairs.
- The Acts ensures that the recipients of Foreign Contributions adhere to the stated purpose for which such contribution has been obtained.
- Under the Act, organisations are required to register themselves every five years.

About Non-Governmental Organisations (NGO):

- Worldwide, the term ‘NGO’ is used to describe a body that is neither part of a government nor a conventional for-profit business organisation.
- NGOs are groups of ordinary citizens that are involved in a wide range of activities that may have charitable, social, political, religious or other interests.
- NGOs are helpful in implementing government schemes at the grassroots.
- In India, NGOs can be registered under a plethora of Acts such as the Indian Societies Registration Act, 1860, Religious Endowments Act, 1863, Indian Trusts Act, etc.
- India has possibly the largest number of active NGOs in the world; a study commissioned by the Government put the number of NGOs in 2009 at 33 lakh.
- That was one NGO for less than 400 Indians, and many times the number of primary schools and primary health centres.

- Ministries such as Health and Family Welfare, Human Resource Department, etc provides funding to a handful of NGOs.
- NGOs also receive funds from abroad, if they are registered with the Home Ministry under the Foreign Contribution (Regulation) Act (FCRA).
- Without this, no NGO can receive cash or anything of value higher than Rs 25,000.

Controversies Related to FCRA:

- The FCRA regulates the receipt of funding from sources outside of India to NGOs working in India. It prohibits the receipt of foreign contribution “for any activities detrimental to the national interest”.
- The Act also held that the government can refuse permission if it believes that the donation to the NGO will adversely affect “public interest” or the “economic interest of the state”. However, there is no clear guidance on what constitutes “public interest”.
- The FCRA restrictions have serious consequences on both the rights to free speech and freedom of association under Articles 19(1)(a) and 19(1)(c) of the Constitution. The right to free speech is affected in two ways:
 - ✓ By allowing only some political groups to receive foreign donations and disallowing some others, can induce biases in favour of the Government.
 - ✓ NGOs need to tread carefully when they criticise the regime, knowing that too much criticism could cost their Survival.
- FCRA norms can reduce critical voices by declaring them to be against the public interest. This chilling effect on free speech can lead to self-censorship.
- Similar to this on unclear guidelines on public interest, in *Shreya Singhal v. Union of India* (2015), the Supreme Court (SC) struck down Section 66A of the Information Technology Act. The SC held that the Act could be used in a manner that has a chilling effect on free speech.
- Besides, given that the right to freedom of association is part of the Universal Declaration of Human Rights (Article 20), a violation of this right also constitutes a human rights violation.
- In April 2016, the UN Special Rapporteurs on the Rights to Freedom of Peaceful Assembly and of Association undertook a legal analysis of the FCRA, 2010.
 - ✓ It stated that restrictions in the name of “public interest” and “economic interest” as invoked under the FCRA failed the test of “legitimate restrictions”.

- ✓ The terms were too vague and gave the state excessive discretionary powers to apply the provision in an Arbitrary Manner.
- ✓ In this context, though it is necessary to regulate corrupt NGOs, there needs to be clarity on terms like Public Interest.

5. Mekedatu Issue

Why in News?

- Tamil Nadu has once again asserted its stand on sharing of river water with neighbouring states by opposing the Mekedatu reservoir project being planned by Karnataka.

What's the Issue?

- Tamil Nadu has protested against Karnataka's move to build a reservoir on river Cauvery at Mekedatu. However, the Karnataka Government has asserted that there is no "compromise" on the Mekedatu project and the state wants to undertake the project.

What's the Way out Then?

- The Centre has said the project required the approval of the Cauvery Water Management Authority's (CWMA). The Detail Project Report (DPR) sent by Karnataka was tabled in the CWMA several times for approval, but the discussion on this issue could not take place due to a lack of consensus among party states Karnataka and Tamil Nadu.
- Also, as per the Cauvery Water Dispute Tribunal's final award, which was modified by the Supreme Court, acceptance of CWMA would be a prerequisite for consideration of the DPR by the Jal Shakti Ministry. Since the project was proposed across an inter-state river, it required approval of lower riparian state(s) as per the interstate water dispute act.

About the Project:

- Mekedatu is a multipurpose (drinking and power) project.
- It involves building a balancing reservoir, near Kanakapura in Ramanagara district in Karnataka. The project once completed is aimed at ensuring drinking water to Bengaluru and neighbouring areas (4.75 TMC) and also can generate 400 MW power.
- The estimated cost of the project is Rs 9,000 crore.

Why Tamil Nadu is against this Project?

- It says, the CWDT and the SC have found that the existing storage facilities available in the Cauvery basin were adequate for storing and distributing water so Karnataka's proposal is ex-facie (on the face of it) untenable and should be rejected outright.

- It has also held that the reservoir is not just for drinking water alone, but to increase the extent of irrigation, which is in clear violation of the Cauvery Water Disputes Award.

Award by the Tribunal and the Supreme Court:

- The tribunal was set up in 1990 and made its final award in 2007, granting 419 tmcft of water to Tamil Nadu, 270 tmcft to Karnataka, 30 tmcft to Kerala and 7 tmcft to Puducherry. The tribunal ordered that in rain-scarcity years, the allocation for all would stand reduced.
- However, both Tamil Nadu and Karnataka expressed unhappiness over the allocation and there were protests and violence in both states over water-sharing. That saw the Supreme Court take up the matter and, in a 2018 judgment, it apportioned 14.75 tmcft from Tamil Nadu's earlier share to Karnataka.
- The new allocation thus stood at 404.25 tmcft for Tamil Nadu while Karnataka's share went up to 284.75 tmcft. The share for Kerala and Puducherry remained unchanged.

6. Tamil Nadu reiterates stand over Mullaperiyar level

Why in News?

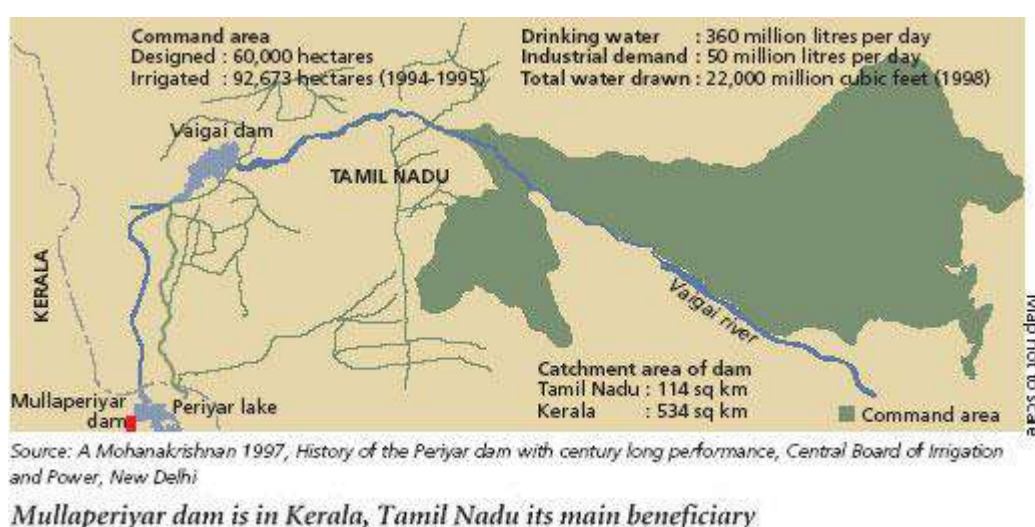
- Tamil Nadu has once again asserted its stand on sharing of river water with neighbouring states by declaring its intention to take necessary steps to restore the full reservoir level (FRL) of 152 ft in Mullaperiyar Dam located in Kerala.

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.



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.

What is Tamil Nadu’s Stand?

- The Tamil Nadu Government has so far stood firm by its position in the court that the dam is “hydrologically, structurally and seismically safe”. It had blamed a “social media campaign” triggered in Kerala against the dam.
- It said the steady flow of petitions to the court from Kerala, questioning the dam’s safety, even calling for its decommissioning, was a bid to harass it.
- It accused Kerala of trying “somehow to prevent Tamil Nadu to raise the level to 142 ft. at the Mullaiperiyar dam on one pretext or the other by raising issues which have been fully addressed by experts from Central Water Commission [CWC]”.
- Tamil Nadu, in an affidavit, noted that the safety of the dam had been supported by reports of the expert committee and the empowered committee after extensive study. The height of storage level of the dam at 142 ft. was endorsed by the court in 2014 in a judgment.
- The safety aspects of the dam were being constantly monitored by the Supervisory Committee set up seven years ago.

What is Kerala’s Demand?

- Kerala, in turn, has demanded a reconsideration of the rule curve, as the dam was situated in a seismic zone. It accused Tamil Nadu of adopting an “obsolete” gate operation schedule dating back to 1939.
- The court is hearing a petition filed by Idukki resident Dr. Joe Joseph and office-bearers of the Kothamangalam block panchayat in Kerala expressing their apprehensions about the lack of proper supervision of water levels in the dam located along the Periyar tiger reserve.

- The petitioners, including Dr. Joseph, had accused the Supervisory Committee of having become “lethargical” in the safety inspection and survey of the dam, saying it has delegated its duties to a sub-committee of local officials.
- Idukki-based Periyar Protection Movement alleged that there was “deep” seepage issues in the dam structure.
- Tamil Nadu cannot dismiss the apprehensions of 50 lakh people in Kerala about the dam’s safety by calling it a Social Media Campaign.

7. Use Drones more Effectively, says Civil Aviation Ministry

Why in News?

- In a nationwide programme to take the third eye to the sky, the Ministry of Civil Aviation (MoCA) has called for more effective utilisation of drone applications and urged the Ministry of Home Affairs to deploy unmanned aerial vehicles for surveillance, situational Analysis, Crime Control, VVIP security, Disaster Management, etc.

What is a Drone?

- Drone is a layman terminology for Unmanned Aircraft (UA). There are three subsets of Unmanned Aircraft- Remotely Piloted Aircraft, Autonomous Aircraft and Model Aircraft.
- Remotely Piloted Aircraft consists of remote pilot station(s), the required command and control links and any other components, as specified in the type design.
- Besides combat use, drones are used for a range of purposes like package delivery, in agriculture (spraying pesticides etc), Monitoring Environmental changes, aerial Photography, and during search and relief Operations, among others.

Key Changes brought in the Drone Rules, 2021:

- Digital sky platform shall be developed as a business-friendly single-window online system. No flight permission required upto 400 feet in green zones and upto 200 feet in the area between 8 and 12 km from the airport perimeter.
- No pilot licence required for micro drones (for non-commercial use), nano drone and for R&D organisations. No restriction on drone operations by foreign-owned companies registered in India.
- Import of drones and drone components to be regulated by DGFT.
- No security clearance required before any registration or Licence Issuance.
- No requirement of certificate of Airworthiness, Unique Identification Number, Prior Permission and remote pilot licence for R&D entities.

- Coverage of drones under Drone Rules, 2021 increased from 300 kg to 500 kg. This will cover drone taxis also.
- Issuance of Certificate of Airworthiness delegated to Quality Council of India and Certification entities Authorised by it.
- Manufacturer may Generate their drone's unique identification number on the digital sky platform through the self-certification route.
- Maximum penalty under Drone Rules, 2021 reduced to INR 1 lakh. This shall, however, not apply to penalties in respect of violation of other laws.
- Drone corridors will be developed for cargo deliveries.
- Drone promotion council to be set up to facilitate a business-friendly regulatory regime.

Need for Stricter Rules and Regulations:

- Recently, Drones were used for the first time to drop explosive devices, triggering blasts inside the Air Force Station's technical area in Jammu.
- Over the past two Years, drones have been deployed regularly by Pakistan-based outfits to Smuggle Arms, Ammunition and drugs into Indian territory.
- According to Government figures, 167 drone sightings were recorded along the border with Pakistan in 2019, and in 2020, there were 77 such sightings.
- With the rapid Proliferation of drone technology and exponential growth of its global market in recent years, the possibility of a drone attack cannot be ruled out even in the safest cities in the world.
- Drones are becoming Security threats particularly in conflict zones where non-state actors are active and have easy access to the Technology.

8. Centre yet to notify rules of Citizenship Amendment Act

Why in News?

- The Ministry of Home Affairs (MHA) did not notify the Citizenship (Amendment) Act, 2019 rules even the third extended deadline after the Act was passed.

About the News:

- The CAA was passed by the Lok Sabha in Dec 9, 2019, by the Rajya Sabha on Dec 11, 2019 and was assented by the President on December 12, 2019.
- The MHA issued a notification later that the provisions of the act will come into force from Jan 10, 2020.

- January 9 was the last day of an extension it sought from the two parliamentary committees in the Lok Sabha and the Rajya Sabha to frame the rules.
- But still the rules are not yet notified.
- The legislation cannot be implemented without the rules being notified.

About the CAA and Foreigners Tribunal:

- The Parliament passed the Citizenship Amendment Act (CAA), 2019 that seeks to give citizenship to refugees from the Hindu, Christian, Buddhist, Sikh and Zoroastrian communities fleeing religious persecution from Pakistan, Bangladesh and Afghanistan, who came to India before 31st December, 2014.
- Residential Requirement for citizenship through naturalization from the above said countries is at least 5 years. Residential requirement for citizenship through naturalization for others is 11 years.
- The Act applies to all States and Union Territories of the country.
- The beneficiaries of Citizenship Amendment Act can reside in any state of the country.
- In 1964, the govt. brought in the Foreigners (Tribunals) Order.
 - ✓ Advocates not below the age of 35 years of age with at least 7 years of practice (or) Retired Judicial Officers from the Assam Judicial Service (or) Retired IAS of ACS Officers (not below the rank of Secretary/Addl. Secretary) having experience in quasi-Judicial Works.
 - ✓ The Ministry of Home Affairs (MHA) has amended the Foreigners (Tribunals) Order, 1964, and has empowered district magistrates in all States and Union Territories to set up tribunals (quasi-judicial bodies) to decide whether a person staying illegally in India is a foreigner or not.
 - ✓ Earlier, the powers to constitute tribunals were vested only with the Centre.
 - ✓ Typically, the tribunals there have seen two kinds of cases: those concerning persons against whom a reference has been made by the border police and those whose names in the electoral roll has a “D”, or “doubtful”, marked against them.

Who are Illegal Immigrants?

- According to the Citizenship Act, 1955, an illegal immigrant is one who enters India without a valid passport or with forged documents, or a person who stays beyond the Visa Permit.

What is NRC?

- The National Register of Citizens (NRC) is meant to identify a bona fide citizen.

- In other words, by the order of the Supreme Court of India, NRC is being currently updated in Assam to detect Bangladeshi nationals who might have entered the State illegally after the midnight of March 24, 1971.
- The date was decided in the 1985 Assam Accord, which was signed between the then Prime Minister Rajiv Gandhi and the AASU.
- The NRC was first published after the 1951 Census in the independent India when parts of Assam went to the East Pakistan, now Bangladesh.
- The first draft of the updated list was concluded by December 31, 2017.

Arguments against the Act:

- The Fundamental Criticism of the Act has been that it specifically targets Muslims. Critics argue that it is violative of **Article 14** of the Constitution (which guarantees the right to equality) and the principle of secularism.
- India has several other refugees that include Tamils from Sri Lanka and Hindu Rohingya from Myanmar. They are not covered under the Act.
- Despite exemption granted to some regions in the North-eastern states, the prospect of citizenship for massive numbers of illegal Bangladeshi migrants has triggered deep anxieties in the states.
- It will be difficult for the government to differentiate between Illegal Migrants and those Persecuted.

Arguments in Favour:

- The government has clarified that Pakistan, Afghanistan and Bangladesh are Islamic republic's where Muslims are in majority hence they cannot be treated as persecuted minorities. It has assured that the government will examine the application from any other community on a case to case basis. This Act is a big boon to all those people who have been the victims of Partition and the subsequent conversion of the three countries into theocratic
- Islamic republics. Citing partition between India and Pakistan on religious lines in 1947, the government has argued that millions of citizens of undivided India belonging to various faiths were staying in Pakistan and Bangladesh from 1947.
- The constitutions of Pakistan, Afghanistan and Bangladesh provide for a specific state religion. As a result, many persons belonging to Hindu, Sikh, Buddhist, Jain, Parsi and Christian communities have faced persecution on grounds of religion in those countries.

- Many such persons have fled to India to seek shelter and continued to stay in India even if their travel documents have expired or they have incomplete or no documents.
- After Independence, not once but twice, India conceded that the minorities in its neighbourhood is its responsibility. First, immediately after Partition and again during the **Indira-Mujib Pact in 1972** when India had agreed to absorb over 1.2 million refugees. It is a historical fact that on both occasions, it was only the Hindus, Sikhs, Buddhists and Christians who had come over to Indian side.

9. Cheetah Reintroduction Project

Why in News?

- The Government is preparing to translocate the first batch of eight from South Africa and Namibia to Kuno National Park in Madhya Pradesh soon after the situation linked to the current third wave of Covid-19 becomes normal, and total 50 in various parks over a period of Five Years.

What Next?

- In this regard, the Union Minister for Environment, Forests and Climate Change has launched the 'Action Plan for Introduction of Cheetah in India' under which 50 of these big cats will be introduced in the next Five Years.
- The action plan was launched at the 19th meeting of the National Tiger Conservation Authority (NTCA).

What is Reintroduction and why Reintroduce Cheetah Now?

- 'Reintroduction' of a species means releasing it in an area where it is capable of surviving.
- Reintroductions of large carnivores have increasingly been recognised as a strategy to conserve Threatened Species and restore Ecosystem Functions.
- The cheetah is the only large carnivore that has been extirpated, mainly by over-hunting in India in Historical Times.
- India now has the economic ability to consider restoring its lost natural heritage for ethical as well as Ecological Reasons.

About the Cheetah:

- The cheetah, *Acinonyx jubatus*, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- The cheetah is also the world's fastest land mammal.
- It is listed as vulnerable in IUCN red listed species.

- The country's last spotted feline died in Chhattisgarh in 1947. Later, the cheetah — which is the fastest land animal — was declared extinct in India in 1952.
- The **African Cheetah** has been classified as **Vulnerable** by the IUCN; while the **Asiatic Cheetah** (found only in Iran) has been classified as **Critically Endangered** and both are listed under **Appendix I** of **CITES** (Convention on International Trade in Endangered Species).



African Cheetah

Asiatic Cheetah

Cheetah Reintroduction Programme in India:

- The Wildlife Institute of India at Dehradun had prepared a ₹260-crore cheetah re-introduction project seven years ago.
- India has plans to reintroduce cheetahs at the Kuno National Park in Sheopur and Morena districts of Madhya Pradesh's Gwalior-Chambal region.
- This could be the world's first inter-continental cheetah translocation project.

Reasons for Extinction:

- The reasons for extinction can all be traced to man's interference. Problems like human-wildlife conflict, loss of habitat and loss of prey, and illegal trafficking, have decimated their numbers.
- The advent of climate change and growing human populations have only made these problems worse.
- With less available land for wildlife, species that require vast home range like the cheetah are placed in competition with other animals and humans, all fighting over less space.

10. SC to Urgently Hear Hate Speeches Case

Why in News?

- The Supreme Court recently agreed to urgently hear a petition seeking the arrest and trial of people who made hate speeches, inciting violence towards Muslims, at the Haridwar Dharm Sansad.

What is Hate Speech?

- According to Law Commission of India (267th report), hate speech is “incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief and the like”
- The report of the commission further clarifies that hate speech is “any word written or spoken, signs, visible representations within the hearing or sight of a person with the Intention to cause fear or alarm, or Incitement to Violence.

What are the Constitutional Provisions Regarding the Freedom of Speech?

- Article 19(1)(a) of the Indian Constitution guarantees freedom of speech and expression. Any restriction on this right shall only be permitted if the speech falls within one of the eight grounds set out in Article 19(2) of the Constitution.
- The freedom of speech under Article 19(1)(a) includes the right to express one’s views and opinions at any issue through any medium, e.g. by words of mouth, writing, printing, picture, film, movie, etc.
- It thus includes the freedom of communication and the right to propagate or publish an opinion.

Can Freedom of Speech be Curtailed?

- This right is subject to reasonable restrictions being imposed under Article 19(2). Out of the eight different grounds listed on Article 19(2) of the Constitution, the majority of hate speech laws are saved by the ‘public order’ exception. The eight different grounds are;
 - ✓ Security of the State.
 - ✓ Friendly relations with FOREIGN STATES.
 - ✓ Public order.
 - ✓ Decency and morality.
 - ✓ Contempt of court.
 - ✓ Defamation.
 - ✓ Incitement to an offence, and
 - ✓ Sovereignty and integrity of India.

- Reasonable restrictions on these grounds can be imposed only by a duly enacted law and not by executive action.

Issues of Social Media Misuse:

- **Rumour Mongering:** Fake narratives on online platforms have real life implications. For example, recently in India, online rumours, regarding child traffickers, through popular messaging platform WhatsApp, led to a spate of lynching's in rural areas.
- **Facilitating Polarisation:** It enables the Communalising agents to polarise people for Electoral Gains.
 - ✓ For example, during the election campaign of recently conducted Delhi legislative assembly elections, a leader enticed crowds with the use of communalising and violence on social media platforms.
 - ✓ Following this, a young man translated these words into reality by opening fire on protesters.
 - ✓ This incident highlighted how the spread of hate speech through social media has real consequences.
- **Social Media AI poorly adapted to local languages:** Social media platforms' Artificial Intelligence based Algorithms that filter out hate speeches are not adapted to local languages. Also, the companies have invested little in staff fluent in them. Due to this, it failed to limit the ultranationalist Buddhist monks using Facebook for disseminating hate speech which eventually led to Rohingya Massacres.

Way Forward:

- **Harmonising the Laws:** Harmonising the regulations to check misuse of social media are scattered across multiple acts and rules.
- Thus, there is a need to synchronise the relevant provisions under the Indian Penal Code, the Information Technology Act and Criminal Procedure Code.
- **Obeying the regulation by Supreme Court:** In Shreya Singhal v. Union of India (2015) case, Supreme Court gave a verdict on the issue of online speech and intermediary liability in India.
 - ✓ It struck down the Section 66A of the Information Technology Act, 2000, relating to restrictions on online speech, on grounds of violating the freedom of speech guaranteed under Article 19(1)(a) of the Constitution of India.
 - ✓ It also gave the direction on how hate content should be regulated and the government should follow this direction, where the user reports to the intermediary and the platforms then takes it down after following due process.

- **Transparency obligation for Digital Platforms:** Digital platforms can be made to publish the name and amount paid by the author in the event that content is sponsored.
 - ✓ For example, with regard to fake news, France has an 1881 law that defines the criteria to establish that news is fake and being disseminated deliberately on a large scale.
 - ✓ A legal injunction should be created to swiftly halt such news from being disseminated.
- **Establishing Regulatory Framework:** Responsible broadcasting and institutional arrangements should be made with consultations between social media platforms, media Industry bodies, civil society and law enforcement as an ideal regulatory framework.
 - ✓ Even global regulations could be made to establish baseline content, electoral integrity, privacy, and data standards.
- **Creating Code of Conduct:** It can be framed without creating an ambiguous statutory structure that could leave avenues for potential legislative and state control.
 - ✓ For example, the European Union has also established a code of conduct to ensure non-proliferation of hate speech under the framework of a ‘digital single market.’

11. Two SC Judges pull out of Krishna Water Case

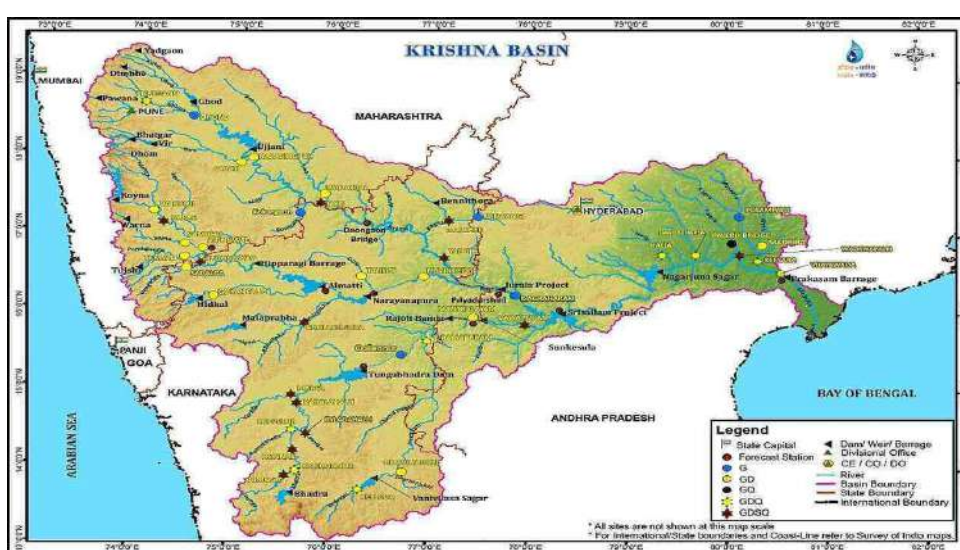
Why in News?

- Both Justices D.Y. Chandrachud and A.S. Bopanna of the Supreme Court recently recused from hearing a dispute among the neighbouring States of Telangana, Andhra Pradesh and Karnataka on the allocation of Krishna River Water.

About the Krishna Water Dispute:

- Karnataka has sought the vacation of a November 16, 2011 of the Supreme Court which stopped the Centre from publishing in the Official Gazette the final order of the Krishna Water Disputes Tribunal II (KWDT) pronounced in December 2010, allocating the river water to Karnataka, erstwhile Andhra Pradesh and Maharashtra.
- The KWDT had further modified its final order and report on November 29, 2013 to allot surplus water to Karnataka, Maharashtra and the erstwhile State of Andhra Pradesh while preserving the allocation of 2130 TMC already made amongst them.
- However, following the bifurcation of Andhra Pradesh, its successors Telangana and Andhra Pradesh had moved the Supreme Court challenging the KWDT’s allocation of shares.
- Karnataka has argued that the dispute raised by Andhra Pradesh and Telangana was between them and did not concern it.

- The State said the decision of the KWDT was enforceable only till 2050, after which it has to be reviewed or revised. Ten years have already lapsed in litigation since 2010.
- Karnataka required at least 10 years to complete several irrigation projects whose costs were pegged at ₹60,000 crore in 2014-15.
- The costs would escalate annually by 10% to 15%. Even if the irrigation projects are completed in 10 years, the Central Water Commission clearances would take time.
- The life of the KWDT award is 40 years, out of which 10 years have already lapsed and 10 years is required to complete the work. As a result, Karnataka will not be in a position to utilise water 20 out of 40 years.



About Inter-State River Water Disputes:

- Article 262 of the Constitution provides for the adjudication of inter-state water disputes.
- Under this, Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.
- The Parliament has enacted the two laws, the River Boards Act (1956) and the Inter-State Water Disputes Act (1956).
- The River Boards Act provides for the establishment of river boards by the Central government for the regulation and development of inter-state river and river valleys.
- A River Board is established on the request of state governments concerned to advise them.

- The Inter-State Water Disputes Act empowers the Central government to set up an ad hoc tribunal for the adjudication of a dispute between two or more states in relation to the waters of an inter-state river or River Valley.
- The decision of the tribunal is final and binding on the parties to the dispute.
- Neither the Supreme Court nor any other court is to have jurisdiction in respect of any water dispute which may be referred to such a tribunal under this Act.

About Krishna River:

- **Source:** It originates near Mahabaleshwar (Satara) in Maharashtra. It is the second biggest river in peninsular India after the Godavari River.
- **Drainage:** It runs from four states Maharashtra (303 km), North Karnataka (480 km) and the rest of its 1300 km journey in Telangana and Andhra Pradesh before it empties into the Bay of Bengal.
- **Tributaries:** Tungabhadra, Mallaprabha, Koyna, Bhima, Ghataprabha, Yerla, Warna, Dindi, Musi and Dudhganga.

12. Jallikattu

Why in News?

- With a steep rise in the daily cases of COVID-19, the district administration in Vellore, Tiruvannamalai, Ranipet and Tirupattur, have banned the conduct of Jallikattu events, ahead of Pongal festival, as part of Safety Measures.

What is Jallikattu?

- The bull-taming sport is popular in Madurai, Tiruchirappalli, Theni, Pudukkottai and Dindigul districts known as the Jallikattu belt.
- Jallikattu is celebrated in the second week of January, during the Tamil harvest festival, Pongal.
- A tradition over 2,000 years old, Jallikattu is a competitive sport as well as an event to Honour Bull Owners who rear them for Mating.
- It is a violent sport in which contestants try to tame a bull for a prize; if they fail, the bull Owner Wins the Prize.

Why is Jallikattu Important in Tamil culture?

- Jallikattu is considered a traditional way for the peasant community to preserve their pure-breed native bulls.

- At a time when cattle breeding is often an artificial process, conservationists and peasants argue that Jallikattu is a way to protect these male animals which are otherwise used only for Meat if not for Ploughing.

Why has Jallikattu been the Subject of Legal Battles?

- Jallikattu first came under legal scrutiny in 2007 when the Animal Welfare Board of India and the animal rights group PETA moved petitions in the Supreme Court against Jallikattu as well as bullock cart races.
- The Tamil Nadu government, however, worked its way out of the ban by passing a law in 2009, which was signed by the Governor.
- In 2011, the UPA regime at the Centre added bulls to the list of animals whose training and exhibition is prohibited.
- In May 2014, days before the BJP was elected to power, the Supreme Court banned the bull-taming sport, ruling on a petition that cited the 2011 notification.

So, is it legal or Banned Now?

- In January 2017, massive protests erupted across Tamil Nadu against the ban, with Chennai city witnessing a 15-day-long Jallikattu uprising.
- The same year, the Tamil Nadu government released an ordinance amending the central Act and allowing Jallikattu in the state; this was later ratified by the President.
- The amendment was subsequently approved by the President of India, effectively overturning the Supreme Court ban and allowing the sport to be played without any legal hurdle.
- PETA challenged the state move, arguing it was unconstitutional (Article 29(1)).
- In 2018, the Supreme Court referred the Jallikattu case to a Constitution Bench, where it is Pending Now.

13. Punjab Lok Congress receives its Party Symbol

Why in News?

- Former Punjab CM Amarinder Singh's newly formed party Punjab Lok Congress has received its party symbol – Hockey stick and ball.

Firstly, how are symbols allotted to political parties?

- As per the guidelines, to get a symbol allotted:
 - ✓ A party/candidate has to provide a list of three symbols from the EC's free symbols list at the time of filing nomination papers.

- ✓ Among them, one symbol is allotted to the party/candidate on a first-come-first-serve basis. When a recognised political party splits, the Election Commission takes the decision on assigning the symbol.

Powers of Election Commission:

- The Election Symbols (Reservation and Allotment) Order, 1968 empowers the EC to recognise political parties and allot symbols.
- Under Paragraph 15 of the Order, it can decide disputes among rival groups or sections of a recognised political party staking claim to its name and symbol.
- The EC is also the only authority to decide issues on a dispute or a merger. The Supreme Court upheld its validity in Sadiq Ali and another vs. ECI in 1971.

How many Types of Symbols are there?

- As per the Election Symbols (Reservation and Allotment) (Amendment) Order, 2017, party symbols are either:
 - ✓ **Reserved:** Eight national parties and 64 state parties across the country have “Reserved” Symbols.
 - ✓ **Free:** The Election Commission also has a pool of nearly 200 “free” symbols that are allotted to the thousands of unrecognised regional parties that pop up before Elections.

What are the Election Commission’s powers in a dispute over the election symbol when a Party Splits?

- On the question of a split in a political party outside the legislature, Para 15 of the Symbols Order, 1968, states: “When the Commission is satisfied that there are rival sections or Groups of a Recognised political party each of whom claims to be that party the Commission may decide that one such rival section or group or none of such rival sections or groups is that recognised political party and the decision of the Commission shall be binding on all such rival sections or groups.”
- This applies to disputes in recognised national and state parties (like the LJP, in this case). For splits in registered but unrecognised parties, the EC usually advises the warring factions to resolve their differences internally or to approach the court.
- Please note that before 1968, the EC issued notifications and executive orders under the Conduct of Election Rules, 1961.

14. SC Seeks Response from Government on Hate speech

Why in News?

- The SC has recently asked the Ministry of Home Affairs (MHA) and the police chiefs of Delhi and Uttarakhand to respond to petitions that people accused of delivering hate speeches at a Dharam Sansad organised in Haridwar have not been arrested yet.

What is Hate Speech?

- According to Law Commission of India (267th report), hate speech is “incitement to hatred primarily against a group of persons defined in terms of race, ethnicity, gender, sexual orientation, religious belief and the like”
- The report of the Commission further clarifies that hate speech is “any word written or spoken, signs, visible representations within the hearing or sight of a person with the intention to cause fear or alarm, or incitement to violence.”

What are the Constitutional Provisions regarding the Freedom of speech?

- Article 19(1)(a) of the Indian Constitution guarantees freedom of speech and expression. Any restriction on this right shall only be permitted if the speech falls within one of the eight grounds set out in Article 19(2) of the Constitution.
- The freedom of speech under Article 19(1)(a) includes the right to express one’s views and opinions at any issue through any medium, e.g. by words of mouth, writing, printing, picture, film, movie, etc.
- It thus includes the freedom of communication and the right to propagate or publish an opinion.

Can Freedom of Speech be Curtailed?

- This right is subject to reasonable restrictions being imposed under Article 19(2). Out of the eight different grounds listed on Article 19(2) of the Constitution, the majority of hate speech laws are saved by the ‘public order’ exception. The eight different grounds are;
 - ✓ Security of the State.
 - ✓ Friendly relations with foreign States
 - ✓ Public order
 - ✓ Decency and morality
 - ✓ Contempt of court
 - ✓ Defamation
 - ✓ Incitement to an offence, and
 - ✓ Sovereignty and integrity of India.

- Reasonable restrictions on these grounds can be imposed only by a duly enacted law and not by executive action.

Issues of Social Media Misuse:

- **Rumour Mongering:** Fake narratives on online platforms have real life implications. For Example, Recently in India, online rumours, regarding child traffickers, through popular messaging platform WhatsApp, led to a spate of lynchings in rural areas.
- **Facilitating Polarisation:** It enables the communalising agents to polarise people for Electoral Gains.
 - ✓ For example, during the election campaign of recently conducted Delhi legislative assembly elections, a leader enticed crowds with the use of communalising and violence on social media platforms.
 - ✓ Following this, a young man translated these words into reality by opening fire on protesters. This incident highlighted how the spread of hate speech through social media has real consequences.
- **Social Media AI poorly adapted to local languages:** Social media platforms' artificial intelligence based algorithms that filter out hate speeches are not adapted to local languages.
- Also, the companies have invested little in staff fluent in them. Due to this, it failed to limit the ultranationalist Buddhist monks using Facebook for disseminating hate speech which eventually led to Rohingya massacres.

Way Forward:

- **Harmonising the Laws:** Harmonising the regulations to check misuse of social media are scattered across multiple acts and rules.
- Thus, there is a need to synchronise the relevant provisions under the Indian Penal Code, the Information Technology Act and Criminal Procedure Code.
- **Obeying the regulation by Supreme Court:** In Shreya Singhal v. Union of India (2015) case, Supreme Court gave a verdict on the issue of online speech and intermediary liability in India.
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 - ✓ It also gave the direction on how hate content should be regulated and the government should follow this direction, where the user reports to the intermediary and the platforms then takes it down after following due process.

- **Transparency obligation for digital platforms:** Digital platforms can be made to publish the name and amount paid by the author in the event that content is sponsored.
 - ✓ For example, with regard to fake news, France has an 1881 law that defines the criteria to establish that news is fake and being disseminated deliberately on a large scale.
 - ✓ A legal injunction should be created to swiftly halt such news from being disseminated.
- **Establishing regulatory framework:** Responsible broadcasting and institutional arrangements should be made with consultations between social media platforms, media industry bodies, civil society and law enforcement as an ideal regulatory framework.
 - ✓ Even global regulations could be made to establish baseline content, electoral integrity, privacy, and data standards.
- **Creating Code of Conduct:** It can be framed without creating an ambiguous statutory structure that could leave avenues for potential legislative and state control.
- For example, the European Union has also established a code of conduct to ensure non-proliferation of hate speech under the framework of a ‘digital single market.’

15. Stockholm Convention on POPs

Why in News?

- European Commission has proposed to tighten limits for a range of persistent organic pollutants (POPs) to tackle contamination in recycled products, health and environment.

What are POPs?

- In 1995, the Governing Council of the United Nations Environment Programme (UNEP) called for global action to be taken on POPs, which it defined as “chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to Human Health and the Environment”.

Uniqueness of POPs:

- POPs are lipophilic, which means that they accumulate in the fatty tissue of living animals and human beings.
- In fatty tissue, the concentrations can become magnified by up to 70 000 times higher than the background levels.
- As you move up the food chain, concentrations of POPs tend to increase so that animals at the top of the food chain such as fish, predatory birds, mammals, and humans tend to have the greatest concentrations of these chemicals.

About Stockholm Convention on POPs:

- Signed in 2001 and effective from May 2004 (Ninety days after the ratification by at least 50 signatory states).
- Aims to eliminate or restrict the production and use of persistent organic pollutants (POPs).
- Initially, twelve POPs have been recognized as causing adverse effects on humans and the ecosystem and these can be placed in 3 categories:
 - ✓ **Pesticides:** aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
 - ✓ **Industrial chemicals:** hexachlorobenzene, polychlorinated biphenyls (PCBs); and
 - ✓ **By-products:** hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.
- Since then, additional substances such as carcinogenic polycyclic aromatic hydrocarbons (PAHs) and certain brominated flame-retardants, as well as organometallic compounds such as tributyltin (TBT) have been added to the list of Persistent Organic Pollutants.

Sources of POPs:

- Improper use and/or disposal of agrochemicals and industrial chemicals.
- Elevated temperatures and combustion processes.
- Unwanted by-products of industrial processes or combustion.

Is it Legally Binding?

- Yes. Article 16 of the Convention requires that effectiveness of the measures adopted by the Convention is evaluated in Regular Intervals.

Other Conventions dealing with POPs:

- Convention on Long-Range Transboundary Air Pollutants (LRTAP), Protocol on Persistent Organic Pollutants (POPs).

Recent Developments:

- The Union Cabinet, in 2021, approved the Ratification of seven chemicals listed under the Stockholm Convention on Persistent Organic Pollutants (POPs). The Cabinet has also delegated its powers to ratify chemicals under the Stockholm Convention to the Union Ministers of External Affairs (MEA) and Environment, Forest and Climate Change (MoEFCC) in respect of POPs already regulated under the domestic regulations.
- These are:

- ✓ Chlordecone.
- ✓ Hexabromobiphenyl.
- ✓ Hexabromodiphenyl ether and Heptabromodiphenylether.
- ✓ Tetrabromodiphenyl ether and Pentabromodiphenyl ether.
- ✓ Pentachlorobenzene.
- ✓ Hexabromocyclododecane.
- ✓ Hexachlorobutadiene.

Benefits for India:

- The ratification process would enable India to access Global Environment Facility (GEF) Financial Resources in updating the National Implementation Plan (NIP).

16. India State of Forest Report 2021

Why in News?

- The Ministry of Environment, Forests and Climate Change (MoEFCC) has released the India State of Forest Report (ISFR) 2021.

Highlights of the Report:

- The biennial report by the Forest Survey of India (FSI) is an assessment of the country's forest resources.
- India's forest and tree cover has risen by 2,261 square kilometers in the last two years with Andhra Pradesh growing the maximum forest cover of 647 square kilometers.
- The total tree-and-forest cover in the country includes an increase of 1,540 square kilometres of forest cover and 721 sq km of tree cover compared to the 2019 report.
- India's total forest and tree cover is now spread across 80.9 million hectares, which is 62 per cent of the geographical area of the country.
- The top five states in terms of increase in forest cover are Andhra Pradesh (647 sq km), Telangana (632 sq km), Odisha (537 sq km), Karnataka (155 sq km) and Jharkhand (110 sq km). The Gain in forest cover or improvement in forest canopy density may be attributed to better Conservation Measures, Protection, afforestation activities, tree plantation drives and Agroforestry. Among the mega cities in the country, Ahmedabad has been the biggest loser when it comes to forest cover.

States with Maximum Forest Cover:

- Area-wise, Madhya Pradesh has the largest forest cover in the country followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.

- 17 states/UTs have above 33 per cent of the geographical area under Forest Cover.
- Out of these states and UTs, Lakshadweep, Mizoram, Andaman & Nicobar Islands, Arunachal Pradesh and Meghalaya have more than 75 per cent forest cover.

Mangrove Cover in the Country:

- There is an increase of 17 sq km in mangrove cover in the country as compared to the Previous Assessment of 2019. Total mangrove cover in the country is 4,992 sq km.
- Top three states showing mangrove cover increase are Odisha (8 sq km) followed by Maharashtra (4 sq km) and Karnataka (3 sq km).

Carbon Stock:

- The total carbon stock in the country's forest is estimated to be 7,204 million tonnes and there is an increase of 79.4 million tonnes in the carbon stock of the country as compared to the last assessment of 2019. The annual increase in the carbon stock is 39.7 Million Tonnes.

Concerns:

- The north-east did not show positive results as the current assessment showed a decrease of forest cover to the extent of 1,020 sq km in the region.
- Arunachal Pradesh lost the maximum forest cover of 257 sq km, followed by Manipur which lost 249 sq km, Nagaland 235 sq km, Mizoram 186 sq km and Meghalaya 73 sq km.
- In total 140 hill districts of the country, the forest cover reduced by 902 sq km in the last two years. In the 2019 report, the forest cover in the hill regions had increased by 544 sq km.

Efforts by Government to Increase Forest Cover in the Country:

- To achieve India's aim of increasing additional carbon sink of 2.5 to 3 billion tonnes CO₂ equivalent by 2030, Nagar Van Yojna has been introduced to increase the tree cover and joined with the second phase of Green Mission in the Next Five Years.

Significant features of ISFR 2021:

- In the present ISFR 2021, FSI has included a new chapter related to the assessment of forest cover in the Tiger Reserves, Corridors and Lion conservation area of India.
- A new initiative of FSI has also been documented in the form of a chapter, where the 'Above Ground Biomass' has been estimated. FSI, in collaboration with Space Application Centre (SAC), ISRO, Ahmedabad, initiated a special study for estimation of Above Ground Biomass (AGB) at pan-India level, using L- band of Synthetic Aperture Radar (SAR) data.

- FSI in collaboration of with Birla Institute of Technology & Science (BITS) Pilani, Goa Campus has performed a study based on ‘Mapping of Climate Change Hotspots in Indian Forests’. The collaborative study was carried out with the objective to map the climatic hotspots over the forest cover in India, using computer model-based projection of temperature and rainfall data, for the three future time periods i.e. year 2030, 2050 and 2085.
- The Report also contains information on various parameters State/UT wise. Special Thematic Information on forest cover such as hill, tribal districts, and north eastern region has also been given Separately in the report.

17. Suspension of 12 Maharashtra MLAs

Why in News?

- 12 Maharashtra BJP MLAs have gone to the Supreme Court against their year-long suspension from the Assembly.

About the Issue:

- During the recent hearing, the Supreme Court observed that the suspension of MLAs for a full year is prima facie unconstitutional, and “worse than expulsion”.
- The MLAs were suspended for misbehaviour in the Assembly pertaining to disclosure of data Regarding OBCs.

What have the Suspended MLAs argued?

- In July 2021, Maharashtra Parliamentary Affairs Minister Anil Parab moved a resolution to suspend 12 BJP MLAs. The suspended MLAs argue that the suspension can only be made by the presiding officer under the rules of the house.
- The petition has Submitted that their suspension is “grossly arbitrary and Disproportionate”. The challenge relies mainly on grounds of denial of the principles of natural justice, and of violation of laid-down procedure.
- The 12 MLAs have said they were not given an opportunity to present their case, and that the suspension violated their fundamental right to equality before law under Article 14 of the Constitution.

Procedure to be Followed for suspension of MLAs:

- Under Rule 53 of the Maharashtra Legislative Assembly Rules, the power to suspend can only be exercised by the Speaker, and it cannot be put to vote in a resolution.

- Rule 53 states that the “Speaker may direct any member who refuses to obey his decision, or whose conduct is, in his opinion, grossly disorderly, to withdraw immediately from the Assembly”.
- The member must “absent himself during the remainder of the day’s meeting”.
- Should any member be ordered to withdraw for a second time in the same session, the Speaker may direct the member to absent himself “for any period not longer than the remainder of the Session”.

How does the State Government Defend its move?

- Under Article 212, courts do not have jurisdiction to inquire into the proceedings of the legislature.
- Article 212 (1) states that “The validity of any proceedings in the Legislature of a State shall not be called in question on the ground of any alleged irregularity of procedure”.
- Under Article 194, any member who transgresses the privileges can be suspended through the inherent powers of the House.
- Thus, the state government has denied that the power to suspend a member can be exercised only through Rule 53 of the Assembly.

Concern Expressed by the Supreme Court over the Length of the Suspension:

- The basic structure of the Constitution would be hit if the constituencies of the suspended MLAs remained unrepresented in the Assembly for a full year.
- Article 190 (4) of the Constitution says, “If for a period of sixty days a member of a House of the Legislature of a State is without permission of the House absent from all meetings thereof, the House may declare his seat vacant.”
- Under Section 151 (A) of The Representation of the People Act, 1951, “a bye-election for filling any vacancy shall be held within a period of six months from the date of the occurrence of the vacancy”. This means that barring exceptions specified under this section, no constituency can remain without a representative for more than six months.
- Therefore, the one-year suspension was prima facie unconstitutional as it went beyond the six-month limit, and amounted to “not punishing the member but punishing the constituency as a whole”.

What are the Rules on the Length of Suspension of a Member of Parliament?

- Rules of Procedure and Conduct of Business in Lok Sabha provide for the withdrawal of a member whose conduct is “grossly disorderly”, and suspension of one who abuses the rules of the House or wilfully obstructs its business.

- The maximum suspension as per these Rules is “for five consecutive sittings or the remainder of the session, whichever is less”. The maximum suspension for Rajya Sabha under Rules 255 and 256 also does not exceed the remainder of the session. Several recent suspensions of members have not continued beyond the session. Similar Rules also are in place for state legislative assemblies and councils which prescribe a maximum suspension not exceeding the remainder of the session.

18.SC to consider hearing PIL challenging use of EVMs in polls

Why in News?

- The Supreme Court recently agreed to consider listing a PIL challenging the constitutional validity of a provision of the Representation of People Act which had led to the Introduction of Electronic Voting Machines (EVMs) in elections.

What does the Petition Say?

- Section 61A of the Representation of People Act, which permitted the use of EVMs, was not passed by Parliament and hence cannot be imposed. The petition wants the provision to be declared null and void.

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.

19. Seditious Law

Why in News?

- Calling for abolishing the law on sedition, former Supreme Court judge Rohinton Nariman has expressed concern on booking critics of the Government for sedition.

What are his Concerns?

- While those Exercising free speech were being booked under the stringent sedition law, those giving hate Speech are not being dealt with by Authorities.
- He said, it is time to completely do away with sedition laws and allow free speech so long as it does not exhort somebody to Violence.

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.

Need for a Proper Definition:

- The sedition law has been in controversy for far too long. Often the governments are criticized for using the law — Section 124-A of the Indian Penal Code (IPC) — against vocal critics of their policies.

Therefore, this Section is seen as a restriction of individuals' freedom of expression and falls short of the provisions of reasonable restrictions on freedom of speech under Article 19 of the Constitution.

- The law has been in debate ever since it was brought into force by the colonial British rulers in 1860s. Several top freedom movement leaders including Mahatma Gandhi and Jawaharlal Nehru were booked under the sedition law.

- ✓ Mahatma Gandhi described it as the “prince among the political sections of the Indian Penal Code designed to suppress the liberty of the citizen.”
- ✓ Nehru had described it as “highly objectionable and obnoxious” which “should have no place in any body of laws that we might pass”. Nehru said, “The sooner we get rid of it the better.”

Relevant Supreme Court judgements:

- **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.
- **The Balwant Singh vs State of Punjab (1995) case:** In this case, the Supreme Court had clarified that merely shouting slogans, in this case Khalistan Zindabad, does not amount to sedition. Evidently, the sedition law is being both misunderstood and misused to muzzle dissent.

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).

- “There has been a dramatic jump in charging a person with the offence of sedition since 2016. In 2019, 93 cases were on the ground of sedition as compared to the 35 cases that were filed in 2016. The same constitutes a 165% increase. Of these 93 cases, charge sheets were filed in a mere 17% of cases and even worse, the conviction rate was an abysmally low 3.3%.

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.

Need of the Hour:

- The top court has observed that the “ambit and parameters of the provisions of Sections 124A, 153A and 505 of the Indian Penal Code, 1860 would require interpretation, particularly in the context of the right of the electronic and print media to communicate news, information and the rights, even those that may be critical of the prevailing regime in any part of the Nation”.

20. Anti-Defection Law

Why in News?

- Bahujan Samaj Party (BSP) chief Mayawati recently called for a more stringent anti-defection law amid a string of politicians switching parties ahead of the Uttar Pradesh Assembly Election Beginning Next Month.

What’s the Issue?

- The practice of politicians deserting Parties just ahead of elections is not unusual. And every time there are defections, the anti-defection law, which penalises individual Lawmakers for Switching Parties, comes into the Picture.

About Anti-Defection Law:

- The Tenth Schedule of Indian Constitution is popularly known as the Anti-Defection Act.
- Original constitution had no such provisions. It was included in the Constitution in 1985 by the Rajiv Gandhi Government.

- The main intent of the law was to deter “the evil of political defections” by legislators motivated by the lure of office or other similar considerations.
- The grounds for disqualification under the Anti-Defection Law includes
 - a) If an elected member voluntarily gives up his membership of a political party.
 - b) If he votes or abstains from voting in such House contrary to any direction issued by his political party or anyone authorized to do so, without obtaining prior permission.
 - c) Going against the Party Whip.
- As a pre-condition for his disqualification, his abstention from voting should not be condoned by his party or the authorized person within 15 days of such incident.
- Articles 102 (2) and 191 (2) deals with anti-defection.
- The law disallows MPs/ MLAs to switch parties after elections, make the members follow the whips issued by their party.
- It also applies to a nominated member if he/ she join a political party after 6 months of nomination and to an independent candidate if he/she joins a party after the election.

What is not a Defection?

- A split in a political party won't be considered a defection if a complete political party merges with another Political Party.
- If a new political party is created by the elected members of one party
- If he or she or alternative members of the party haven't accepted the merger between the Two Parties and opted to perform as a separate group from the time of such a merger.

When does the 10th schedule might not apply?

- The 10th Schedule of the Indian Constitution commonly referred to as the Anti-defection Act says that disqualification on ground of defection will not apply in case of a split.
 - ✓ Where a member of a House claims that he/she and any other members of his/her legislature party constitute the group representing a faction which has arisen as a result of a split in the original political party and such group consists of not less than two-thirds of the members of such legislature party, he/she shall not be disqualified.
 - ✓ From the time of such split, the faction shall be deemed to be the political party to which he/she henceforth belongs.

What are the Loop-Holes?

- Resignation as MLA was not one of the conditions.
- Exploiting this loophole, the 17 rebel MLAs in Karnataka resigned, their act aimed at ending the majority of the ruling coalition and, at the same time, avoiding disqualification.

- However, the Speaker refused to accept the resignations and declared them disqualified. This was possible as the legislation empowers the presiding officer of the House (i.e. the Speaker) to decide on complaints of defection under no time constraint.
- The law originally protected the Speaker's decision from judicial review.
- However, this safeguard was struck down in **Kihoto Hollohan v. Zachillhu and Others (1992)**. While the SC upheld the Speaker's discretionary power, it underscored that the Speaker functioned as a tribunal under the anti-defection law, thereby making her/his decisions subject to Judicial Review.
- This Judgment Enabled Judiciary to become the watchdog of the anti-defection law, instead of the Speaker, who increasingly had become a political character contrary to the expected neutral constitutional role.
- The same could be witnessed in **Shrimanth Balasaheb Patel & Ors vs. Speaker Karnataka Legislative Assembly & Ors (2019)**, where the three-judge SC bench upheld the then Karnataka Speaker's decision of disqualification of the 17 rebel MLAs.
- However, it struck down his ban on the MLAs from contesting elections till 2023, negating the only possible permanent solution to the problem.
- The Supreme Court played the role of a neutral umpire in this political slugfest.
- But, the spectacle of MLAs hoarded in a bus, and being sent to a resort, openly exposed not just the absence of ideological ties between a leader and his party, but also her/his weak moral character.
- It was also upsetting to see public acceptance of such malpractices as part of politics, with some even calling it Chanakya niti!

Is there Any Safeguard for Anti-Defection?

- The Anti-Defection Law provided a safeguard for defections made on genuine ideological Differences. It accepted "split" within a party if at least one-third of the members of the legislative party Defect, and allowed the formation of a new party or "merger" with other political party if not less than two-thirds of the party's members commit to it.
- **The 91st Constitutional Amendment introduced in 2003 deleted the provision allowing split.**
- The 91st Amendment also barred the appointment of defectors as Ministers until their disqualification period is over or they are re-elected, whichever is earlier.
- But, obviously, such laws have not put to rest the trend of defections.

What Should be Done?

- The main issue, as witnessed in Karnataka, is that the defectors treat disqualification as a mere detour, before they return to the House or government by re-contesting.
- This can only be stopped by extending the disqualification period from re-contesting and appointment to Chairmanships/Ministries to at least six years.
- The minimum period limit of six years is needed to ensure that the defectors are not allowed to enter the election fray for least one election cycle, which is Five Years.
- Of course, MLAs can still be bought from the ruling dispensation to bring it to a minority by being paid hefty sums, simply to stay at home for six years.

Contradictory Reforms to the Law:

- Nowadays, no real democratic discussions happen inside political parties about major Issues affecting the country. Individual MPs and MLAs need to be empowered to think Independently. Anti-defection law should be applied only to confidence and no-confidence motions (**Dinesh Goswami Committee on electoral reforms, 1990**) or only when the Government is in danger (**Law Commission (170th report, 1999)**).
- The rationale that a Representative is elected on the basis of the party's programme can be extended to pre-poll alliances.
- Instead of making Speaker the authority for disqualification, the decision should be made by the president or the governor on the advice of the Election Commission. This would make the Process similar to the Disqualification procedure as given in **Representation of Peoples Act (RPA)**.
- There can be Additional Penalties for defectors as well.

21. SC upholds validity of OBC quota in NEET Admissions

Why in News?

- The Supreme Court recently upheld the constitutional validity of quota for Other Backward Classes candidates in National Eligibility cum Entrance Test's (NEET) All India Quota seats for undergraduate and postgraduate medical and dental courses, noting that "Reservation is not at odds with merit" in open competitive examinations.

What was the Apex Court's ruling?

- If open examinations present equality of opportunity to candidates to compete, reservations ensure that the opportunities are distributed in such a way that backward classes are equally able to benefit from such opportunities which typically evade them

because of structural barriers. This is the only manner in which merit can be a democratising force that equalises inherited disadvantages and privileges.

- Otherwise claims of individual merit are nothing but tools of obscuring inheritances that underlie achievements. The court said an open competitive exam only ensures formal equality and does not end widespread ingrained inequalities in the availability of and access to educational facilities to certain classes of people, including the Other Backward Classes (OBC).

What is NEET?

- The National Eligibility-cum-Entrance Test (NEET) is the entrance examination for entry to all undergraduate (NEET-UG) and postgraduate (NEET-PG) medical and dental courses in the country. Until 2016, the All India Pre-Medical Test (AIPMT) was the national-level entrance Examination for Medical Colleges.
- State Governments used to hold separate entrance tests for seats that were not contested at an all-India level. NEET was held for the first time in 2003, but discontinued the following year. On April 13, 2016, the Supreme Court upheld the newly inserted section 10-D of the Indian Medical Council Act.
- This provided for a uniform entrance examination to all medical educational institutions at the undergraduate level and postgraduate level in Hindi, English and various other Languages.
- Since then, NEET has been the uniform entrance test for medical courses across the country.

What is the All-India Quota?

- Although the same examination is held across the country, a chunk of the seats in state medical/dental colleges is reserved for students domiciled in their respective states.
- The remaining seats —15% in UG and 50% in PG — are surrendered by the states to the All India Quota. The AIQ scheme was introduced in 1986 under the directions of the Supreme Court to provide for domicile-free, merit-based opportunities to students from any state to study in a good medical college in any other state.
- A student Domiciled in Uttar Pradesh, for example, may be eligible for admission to a seat in a state Government medical college in West Bengal, provided she scores high enough in the National Merit List.
- If her score is not high enough for AIQ, she may still hope for admission under the state quota in her home state.

- In deemed/central universities, ESIC, and Armed Forces Medical College (AFMC), 100% seats are Reserved under the AIQ.

What was the Reservation Policy followed so far?

- Until 2007, no reservation was implemented within the All-India Quota for medical admission.
- On January 31, 2007, in *Abhay Nath v University of Delhi and Others*, the Supreme Court directed that reservation of 15% for Scheduled Castes and 7.5% for Scheduled Tribes be introduced in the AIQ.
- The same year, the Government passed the Central Educational Institutions (Reservation in Admission) Act, 2007 providing for 27% reservation to OBC students in central Government Institutions.
- While state government medical and dental colleges provide reservations to OBCs in seats outside the All India Quota, this benefit was so far not extended to seats allocated under the AIQ in these State Colleges.
- The 10% EWS quota under the Constitution (One Hundred And Third Amendment) Act, 2019, too, has been implemented in central educational institutions, but not in the NEET AIQ for state Institutions.

What led to the Decision?

- The denial of OBC and EWS reservations has been the subject of protests for years.
- In July last year, the Madras High Court ruled that OBC students too can avail reservation in the AIQ. It held that the reservation could not be implemented for the then academic year for want of time, and can be implemented from 2021-22.

Way Forward:

- The privileges that accrue to forward classes are not limited to having access to quality schooling and access to tutorials and coaching centres to prepare for a competitive Examination but also includes their social networks and Cultural Capital (communication Skills, accent, books or Academic Accomplishments) that they inherit from their family.
- The cultural capital ensures that a child from the forward classes is trained unconsciously by the familial environment to take up higher education or high posts commensurate with their family's standing.
- This works to the disadvantage of individuals from social backward classes who are first-generation learners and come from communities whose traditional occupations do not result in the transmission of necessary skills required to perform well in open examination.

- Thus, merit is not solely of one's own making. The rhetoric surrounding merit obscures the way in which family, schooling, fortune and a gift of talents that the society currently values aids in one's advancement. Thus, the exclusionary standard of merit serves to denigrate the dignity of those who face barriers in their advancement which are not of their own making.

22. Centre Seeks Time in HC on Marital Rape

Why in News?

- The Centre recently told the Delhi High Court that the issue of criminalisation of marital rape involves "Family Issues" and the dignity of a woman and cannot be looked at from a "Microscopic Angle".

What's the Issue?

- The petitions before the Delhi High Court asking for marital rape to be criminalised are an outcome of the Government's refusal to pay heed to the landmark report by the Justice J. S. Verma Committee, constituted in the aftermath of the horrific Nirbhaya gang rape in 2012. Though the Government has said on multiple occasions that such a move will threaten the institution of marriage, experts say recent judgments, including on the right to privacy, have rendered this Argument Untenable.

Key Recommendations made by the Verma Committee:

- The Verma panel proposed that "the exception for marital rape be removed" and the law must "specify that a marital or other relationship between the perpetrator or victim is not a valid defence against the crimes of rape or Sexual Violation".

What are the Arguments by the Government against Criminalising marital rape?

- The Government in its affidavit submitted that it had to be ensured marital rape did not become a Phenomenon that destabilises the institution of marriage and "an easy tool for harassing the husbands". It added, "What may appear to be marital rape to an individual wife, it may not appear so to Others."

Recent Judgments that Question the Government's stand on this:

- Independent Thought vs. Union of India verdict of October 2017, in which the Supreme Court criminalised rape with a minor wife.
- The Justice K.S. Puttaswamy vs. Union of India (September 2018) case, where the apex court unanimously recognised the Fundamental Right to privacy of every individual guaranteed by the Constitution. The Joseph Shine vs. Union of India case of October 2018, where a five-judge Bench of the SC struck down Adultery as a crime.

Need for an Overhaul:

- The origin of the marital rape exception lies in the influential treatise on criminal law of England called the 'History of the Pleas of the Crown' in which the then British Chief Justice, Matthew Hale, pronounced in 1736, "The husband cannot be guilty of rape committed by himself upon his lawful wife, for by their mutual matrimonial consent and contract the wife hath given herself up in this kind unto her husband which she cannot retract."
- This immunity has since been withdrawn in several jurisdictions, including in England, where the House of Lords in 1991 held marriage to be a partnership of equals, and no longer one in which the wife must be a "subservient chattel of the husband".
- Also, according to the World Bank, there are at least 78 countries, including Nepal, that have legislation Specifically Criminalising Marital Rape.

Legal provisions in this regard:

- Currently marital rape is not a ground for a divorce in Hindu Marriage Act, 1955, Muslim Personal Law [Shariat] Application Act, 1937 and Special Marriage Act, 1954, it cannot be used as a ground for divorce and cruelty against husband.
- Section 375 of the IPC holds that "sexual intercourse by a man with his own wife, the wife not being under 15 years of age, is not rape".
- No other statute or law recognises marital rape.
- Victims only have recourse to civil remedies provided under the Protection of Women from Domestic Violence Act, 2005.

Criminalisation of Marital Rape is Necessary Because:

- There are several studies to show the prevalence of non-consensual sex with their wives, and physically forcing their wives to have sex.
- Marriage is an equal-relationship contract and not a one-time consent to everything.
- The legal exception to the rape laws gives men unequal privilege.
- Marital rape victims suffer from long-lasting psychological scars.
- Exception under Section 375, violates Articles 14, 15, 19 and 21 of a woman.
- The patriarchal nature of Indian society, ingrains it in the minds of men that women are expected to comply when their husbands demand sex.
- The victim suffers physical abuse, and she also has to undergo mental trauma of her dignity being violated.
- In the last 70 years, the exemption in Section 375 has remained untouched.

- The prevalence of Child marriages and in many cases women are forcefully married off.

However, there are cons of Criminalizing Marital Rape:

- It “may destabilise the institution of marriage apart from being an easy tool for harassing the husbands”.
- “Rising misuse of Section 498A of IPC”, known as the dowry law, “for harassing the husbands”. Other countries, mostly western, have criminalised marital rape does not necessarily mean India should also follow them blindly.
- Law Commission on Review of Rape Laws has examined the issue but not recommended the criminalisation of marital rape.
- What may appear to be marital rape to an individual wife, it may not appear so to others.
- There can be no lasting evidence in case of sexual acts between a man and his own wife.

23. Consent of AG to initiate contempt proceedings

Why in News?

- Attorney General K K Venugopal has recently granted consent to initiate contempt proceedings against ‘Dharam Sansad’ leader Yati Narsinghanand over his alleged remarks against the Constitution and the Supreme Court.

Need for Consent:

- As per Section 15 of the Contempt of Courts Act, the nod of the Attorney General or the Solicitor General is a Condition precedent to set the criminal contempt proceedings in motion before the Apex Court.

What is the law on Contempt of courts?

- The Contempt of Courts Act 1971 defines civil and criminal contempt, and lays down the powers and procedures by which courts can penalise contempt, as well as the penalties that can be given for the offence of contempt.
- Contempt of court is the offense of being disobedient to or disrespectful toward a court of law and its officers in the form of behavior that opposes or defies the authority, justice and dignity of the court.

Why is the consent of the Attorney General required to Initiate Contempt proceedings?

- The objective behind requiring the consent of the Attorney General before taking cognizance of a complaint is to save the time of the court.

- This is necessary because judicial time is squandered if frivolous petitions are made and the court is the first forum for bringing them in.
- The AG's consent is meant to be a safeguard against frivolous petitions, as it is deemed that the AG, as an officer of the court, will independently ascertain whether the complaint is Indeed Valid.

Under what circumstances is the AG's consent not needed?

- The AG's consent is mandatory when a private citizen wants to initiate a case of contempt of court against a person.
- However, when the court itself initiates a contempt of court case the AG's consent is not required. This is because the court is exercising its inherent powers under the Constitution to punish for contempt and such Constitutional powers cannot be restricted because the AG declined to Grant Consent.

What happens if the AG Denies Consent?

- If the AG denies consent, the matter all but ends.
- The complainant can, however, separately bring the issue to the notice of the court and urge the court to take suo motu cognizance.
- Article 129 of the Constitution gives the Supreme Court the power to initiate contempt cases on its own, independent of the motion brought before it by the AG or with the consent of the AG.

24. Recognition/Derecognition of Political Parties

Why in News?

- A petition has been filed in the Supreme Court seeking a direction to the Election Commission of India (ECI) to seize the election symbol or de-register a political party that promises or distributes "irrational freebies" from public funds before elections.

About the News:

- It said there should be a total ban on such populist measures to gain undue political favours from the voters as they violate the Constitution and the ECI should take suitable Deterrent Measures.

Why it is Needed?

- The plea urged the court to declare that the promise of irrational freebies from public funds before elections unduly influences the voters, disturbs the level playing field and vitiates the purity of the poll Process.

- This unethical Practice is just like giving bribes to the electorate at the cost of the exchequer to stay in power and must be avoided to preserve democratic principles and practices.

Registration of Political Parties:

- Registration of Political parties is governed by the provisions of Section 29A of the Representation of the People Act, 1951.
- A party seeking registration under the said Section with the Election Commission has to submit an application to the Commission within a period of 30 days following the date of its formation as per guidelines prescribed by the Election Commission of India in exercise of the powers conferred by Article 324 of the Commission of India and Section 29A of the Representation of the People Act, 1951.

Eligibility for a 'National Political Party of India:

- It secures at least six percent of the valid votes polled in any four or more states, at a general election to the House of the People or, to the State Legislative Assembly.
- In addition, it wins at least four seats in the House of the People from any State or States.
- It wins at least two percent seats in the House of the People (i.e., 11 seats in the existing House having 543 members), and these members are elected from at least three different States.

Eligibility for a 'State Political Party:

- It secures at least six percent of the valid votes polled in the State at a general election, either to the House of the People or to the Legislative Assembly of the State concerned.
- In addition, it wins at least two seats in the Legislative Assembly of the State concerned.
- It wins at least three percent (3%) of the total number of seats in the Legislative Assembly of the State, or at least three seats in the Assembly, whichever is more.

What are its Benefits?

- If a party is recognised as a State Party', it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it in the State in which it is so recognised, and if a party is recognised as a 'National Party' it is entitled for exclusive allotment of its reserved symbol to the candidates set up by it throughout India.
- Recognised 'State' and 'National' parties need only one proposer for filing the nomination and are also entitled for two sets of electoral rolls free of cost at the time of revision of rolls and their candidates get one copy of electoral roll free of cost during General Elections.

- They also get broadcast/telecast facilities over Akashvani/Doordarshan during general Elections. The travel expenses of star campaigners are not to be accounted for in the election expense Accounts of Candidates of their Party.

25.SC Quashes One-Year Suspension of 12 Maharashtra MLAs

Why in News?

- The Supreme Court recently revoked the one-year suspension of 12 Maharashtra BJP legislators, calling it an “irrational” act that would impact the democratic set-up, leave constituencies unrepresented and help “thin majority” Governments Manipulate Numbers.

About the Issue:

- During the recent hearing, the Supreme Court observed that the suspension of MLAs for a full year is prima facie Unconstitutional, and “Worse than Expulsion”.
- The MLAs were suspended for misbehaviour in the Assembly pertaining to disclosure of data regarding OBCs.

What did the SC Ruled?

- A suspension beyond the remainder period of the ongoing session would not only be grossly irrational measure, but also violative of the basic democratic values owing to Unessential Deprivation of the member concerned, and more importantly, the constituency would Remain Unrepresented in the Assembly.
- It would also impact the democratic set-up as a whole by permitting the thin majority government [coalition government] of the day to manipulate the numbers of the Opposition party in the House in an undemocratic manner.

Procedure to be followed for Suspension of MLAs:

- Under Rule 53 of the Maharashtra Legislative Assembly Rules, the power to suspend can only be exercised by the Speaker, and it cannot be put to vote in a resolution.
- Rule 53 states that the “Speaker may direct any member who refuses to obey his decision, or whose conduct is, in his opinion, grossly disorderly, to withdraw immediately from the Assembly”.
- The member must “absent himself during the remainder of the day’s meeting”.
- Should any member be ordered to withdraw for a second time in the same session, the Speaker may direct the member to absent himself “for any period not longer than the remainder of the Session”.

How does the State Government defended its Move?

- Under Article 212, courts do not have jurisdiction to inquire into the proceedings of the legislature.
- Article 212 (1) states that “The validity of any proceedings in the Legislature of a State shall not be called in question on the ground of any alleged irregularity of procedure”.
- Under Article 194, any member who transgresses the privileges can be suspended through the inherent powers of the House.
- Thus, the state government has denied that the power to suspend a member can be exercised only through Rule 53 of the Assembly.

Concern expressed by the Supreme Court over the Length of the Suspension:

- The basic structure of the Constitution would be hit if the constituencies of the suspended MLAs remained unrepresented in the Assembly for a full year.
- Article 190 (4) of the Constitution says, “If for a period of sixty days a member of a House of the Legislature of a State is without permission of the House absent from all meetings thereof, the House may declare his seat vacant.”
- Under Section 151 (A) of The Representation of the People Act, 1951, “a bye-election for filling any vacancy shall be held within a period of six months from the date of the occurrence of the vacancy”. This means that barring exceptions specified under this section, no constituency can remain without a representative for more than six months.
- Therefore, the one-year suspension was prima facie unconstitutional as it went beyond the six-month limit, and amounted to “not Punishing the member but punishing the Constituency as a Whole”.

What are the rules on the Length of Suspension of a Member of Parliament?

- Rules of Procedure and Conduct of Business in Lok Sabha provide for the withdrawal of a member whose conduct is “grossly disorderly”, and suspension of one who abuses the rules of the House or willfully obstructs its business.
- The maximum suspension as per these Rules is “for five consecutive sittings or the remainder of the session, whichever is less”. The Maximum Suspension for Rajya Sabha under Rules 255 and 256 also does not exceed the Remainder of the session. Several recent suspensions of members have not continued beyond the Session.
- Similar Rules also are in place for state legislative assemblies and councils which prescribe a Maximum Suspension not exceeding the remainder of the session.

26. States must Decide on SC/ST Quota in Promotions, says SC

Why in News?

- The Supreme Court recently refused to lay down the “Yardstick” for determining the inadequacy of representation for Granting Reservation in promotions for Scheduled Caste/Scheduled Tribe candidates in Government Jobs.

About the News:

- The court stuck firm by its Constitution Benches decisions in Jarnail Singh and M. Nagaraj cases that the question of Adequate Representation of an SC/ST communities ought to be left to the respective States to determine.

What did the SC Observe?

- It held ‘cadre’ and not class, group or the entire service as the unit for purpose of collection of quantifiable data for giving promotion quotas.
- It said that, in the light of Jarnail Singh and Nagaraj, we cannot lay down any yardstick for determining the inadequacy of representation.
- In respect of the unit of collection of quantifiable data, the court held that the State was “obligated to collect quantifiable data on the inadequacy of representation of Scheduled Castes and Scheduled Tribes.
- The court, however, noted that the “collection of information on inadequacy of representation of SC/ST communities cannot be with reference to the entire service or class/group, but should be relatable to the grade/category of posts to which the promotion is Sought.”

Significance of the Case:

- With the recognition of ‘cadre’ as the unit for collection of quantifiable data, the court set aside its earlier judgment in the B.K. Pavithra case. The court Further left it to the State to assess the Inadequacy of the representation of SCs and STs for promotional posts by taking into account the relevant factors. A review had to be conducted regarding the data for the purpose of determining the inadequacy of representation in promotions, the court ordered. The court left it to the Union government to fix a “reasonable” time for the States to conduct the review.

M. Nagaraj Case (2006):

- **Reversed the stance in the Indra Sawhney case:** In this case applying the creamy layer concept in SC/ST reservation in promotions, the Supreme court reversed its earlier

stance in the Indra Sawhney case (1992), in which it had excluded the creamy layer concept on SCs/STs (that was applicable on OBCs).

- **Directives to the states:** The five-judges Bench in Nagaraj case upheld the constitutional validity of all 77th, 81st, 82nd, and 85th constitutional amendments enabling reservation of SC/ST communities in promotions, but made certain directives for the states:
 - ✓ State is not bound to make reservations for SC/ST in the matter of promotions.
 - ✓ If a State wants to provide reservation to the SC/ST communities in promotions:
 - ✓ It has to collect quantifiable data showing backwardness of the class.
 - ✓ Show inadequacy of representation of that class in public employment in addition to compliance of Article 335.
 - ✓ State needs to ensure that its reservation provision does not lead to excessiveness-breaching the ceiling-limit of 50%, or destroying the creamy layer principle.

Other Related Judgements:

- In Jarnail Singh v L.N. Gupta (2018) case, SC refused to refer the Nagaraj judgment to a higher bench but later altered the decision by saying that states will not be required to present quantifiable data of backwardness of SC/ST communities.

Reservation in Promotions is not a Fundamental Right:

- Reaffirming its stand in Nagaraj case, the Supreme Court in 2020 ruled that reservation in the matter of promotions in public posts is not a fundamental right, and a state cannot be compelled to offer the quota if it chooses not to.
- **Current Demand by the Centre:** The Centre asked the Court to review its stance of introducing the concept of creamy layer in SC/ST promotions on various issues:
- **Could deprive Backward Classes from Reservation:** The government believes that the 'creamy layer' will become a trick to deprive the backward classes of the benefit of reservation.
- **Redundancy of proving Backwardness Again:** It is presumed that once they are added in the Presidential List under Articles 341 and 342 of the Constitution of India, there is no question of proving backwardness of the SCs and STs all over again.
- The said List cannot be altered by anybody except Parliament under Articles 341 and 342-defining who will be considered as SCs or STs in any state or Union Territory.

Constitutional Provisions for Promotion in Reservation

- **Article 16 (4):** Provides that the State can make any provision for the reservation of appointments or posts in favour of any backward class of citizens who, in the opinion of the state, are not adequately represented in the services under the State.
- **Article 16 (4A):** Provides that the State can make any provision for reservation in matters of promotion in favour of the Scheduled Castes and the Scheduled Tribes if they are not adequately represented in the services under the State.
- It was inserted by the 77th Constitutional Amendment Act, 1995.
- **Article 16(4B):** Added by the 81st Constitutional Amendment Act, 2000 which enabled the unfilled SC/ST quota of a particular year to be carried forward to the next year.
- **Article 335:** It recognises that special measures need to be adopted for considering the claims of SCs and STs to services and posts, in order to bring them at par.
- 82nd Constitutional Amendment Act, 2000 inserted a condition at the end of Article 335 that enables the state to make any provision in favour of the members of the SC/STs for relaxation in qualifying marks in any Examination.

3.1. POLITY & GOVERNANCE SNIPPETS

1. Faecal sludge and septage management in urban areas, Service and Business Models, by 2021

Why in News?

- According to the NITI Aayog report Faecal sludge and septage management in urban areas, Service and business models, by 2021 more than 700 cities / towns are in various stages of Faecal Sludge and Septage Management (FSSM) implementation.

Highlights:

- India has recognized the gaps in sanitation coverage and embarked purposefully to address them, becoming one of the first countries to announce a national policy on FSSM in 2017.
- FSSM prioritizes human excreta management, a waste stream with the highest potential for spreading diseases.
- It is a low-cost and easily scalable sanitation solution that focuses on safe collection, transportation, treatment, and reuse of human waste.
- As a result, FSSM promises a means to achieve the Sustainable Development Goals (SDG) target 6.2 of adequate and inclusive sanitation for all in a time bound manner.

- According to the latest report of the Central Pollution Control Board (CPCB), Sewage Treatment Plants (STPs) in India are able to treat a little more than a third of the sewage generated per day.
- India generated 72,368 MLD (million litres per day) whereas the installed capacity of STPs was 31,841 MLD (43.9%).
- 5 states and Union Territories (UT) – Maharashtra, Gujarat, Uttar Pradesh, Delhi and Karnataka – account for 60% of the total installed treatment capacity of the country.
- Absence of segregation of waste at source.
- Lack of funds for waste management at Urban Local Bodies (ULB).
- Lack of technical expertise and appropriate institutional arrangement.
- Unwillingness of ULBs to introduce proper collection, segregation, transportation and treatment/disposal systems.
- Indifference of citizens towards waste management due to lack of awareness.
- Lack of community participation towards waste management and hygienic condition

2. Jal Jeevan Mission (JJM)

Why in News?

- The Ministry of Jal Shakti has recently approved Drinking Water Supply schemes of Rs. 15,381.72 Crore for Madhya Pradesh under Jal Jeevan Mission (JJM).

Highlights:

- It aims to ensure assured tap water supply or 'Har Ghar Jal' to all rural households by 2024.
- It is Launched in 2019, it envisages supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024.
- It looks to create a jan andolan for water, thereby making it everyone's priority. It comes under Jal Shakti Ministry.
- The mission ensures functionality of existing water supply systems and water connections, water quality monitoring and testing as well as sustainable agriculture.
- It also ensures conjunctive use of conserved water; drinking water source augmentation, drinking water supply system, grey water treatment and its reuse.
- It focuses on integrated demand and supply-side management of water at the local level.
- Creation of local infrastructure for source sustainability measures as mandatory elements, like rainwater harvesting, groundwater recharge and management of household

wastewater for reuse, is undertaken in convergence with other government programmes/schemes.

- The Mission is based on a community approach to water and includes extensive Information, Education and Communication as a key component of the mission.
- Paani Samitis plan, implement, manage, operate and maintain village water supply systems.
- These consist of 10-15 members, with at least 50% women members and other members from Self-Help Groups, Accredited Social and Health Workers, Anganwadi teachers, etc.
- The committees prepare a one-time village action plan, merging all available village resources.
- The plan is approved in a Gram Sabha before implementation.

3. Financial Resolution and Deposit Insurance (FRDI) Bill

Why in News?

- The Finance Ministry has recently sought views of the Reserve Bank of India (RBI) on drafting a modified version of the Financial Resolution and Deposit Insurance (FRDI) Bill in order to deal with Insolvency of Firms in the financial sector.

Highlights:

- In 2018, the Government had withdrawn the FRDI Bill 2017 amid concerns over the security of bank deposits.
- The bill will provide for establishing a resolution authority, which would have powers to undertake prompt resolution for banks, insurance companies and systemically important financial firms.
- The legislation will also provide for an insurance of up to Rs 5 lakh for bank depositors, which already has a legal backing.
- Even as the RBI has come out with a Prompt Corrective Action framework for NBFCs (Non Banking Financial Companies), a need is being felt for a legislative backing for the entire financial sector. The current resolution regime is especially inappropriate for private sector financial firms in the light of significant expansion and many of these acquiring systemically important status in India.
- The provision of a single agency for resolution of financial firms is in line with the recommendations made by the Financial Sector Legislative Reforms Commission (FSLRC), 2011 headed by Justice B N Srikrishna.

- The Insolvency and Bankruptcy Code, 2021 along with the FRDI bill would have streamlined the procedure for the winding up or revival of an ailing financial sector firm.

4. Insurance Regulatory and Development Authority of India (IRDAI)

Why in News?

- Recently, the Insurance Regulatory and Development Authority of India (IRDAI) has proposed a separate regulator for the healthcare segment or it must be allowed to regulate hospitals.

Highlights:

- It has been noticed that the rate of inflation of hospital charges at present is around 10-15% and tariffs are being changed on a regular basis.
- Hospitals keep changing tariffs on a regular basis. There is no body to regulate them on tariff structure and grading.
- When Covid hit the country last year, patients were charged excessively by some hospitals.
- If insurers continue to pay whatever the hospitals are demanding, the health insurance business will be in poor health in the long run. Already, the industry is experiencing a high number of claims.
- If insurers continue to pay whatever the hospitals are demanding, the health insurance business will be in poor health in the long run. Already, the industry is experiencing a high number of claims
- At present, health care schemes and private insurance have individual hospital empanelment processes, which replicates various activities and contributes to inefficiency and duplication of processes.
- Healthcare has become one of the largest sectors in India in terms of revenue and employment. Booming population, rising income levels, growth in infrastructure, increased awareness, insurance policies and India's emergence as a hub of medical tourism and clinical trials have contributed to the development of the health care sector in India.

5. English is the language of Court: Gujarat HC

Why in News?

- A Division Bench of the Gujarat High Court has asked a convict to speak only in English as that was the language in the higher judiciary referring to Article 348 of the Constitution which mandates that the language of the High Court would be English.

What is Article 348?

- It provides for languages to be used in the Supreme Court and in the High Courts and for Acts, Bills, etc
- Article 348 (1) provides that all proceedings in the Supreme Court and in every High court shall be in English Language until Parliament by law otherwise provides.
- Under Article 348 (2), the Governor of the State may, with the previous consent of the President, authorize the use of the Hindi language or any other language used for any Official Purpose of the State.
- It states that in the proceedings of the High Court having its principal seat in that State provided that decrees, judgments or orders passed by such High Courts shall be in English.

When is use of Other Languages Permitted?

- Section 7 of the Official Languages Act, 1963, provides that the use of Hindi or official language of a State in addition to the English language may be authorized.
- This has to be done with the consent of the President of India, by the Governor of the State for purpose of judgments etc. made by the High Court for that State.

6. Sri Jagannath Temple Act of 1954

Why in News?

- The Odisha state cabinet has recently approved amendments to the Sri Jagannath Temple Act of 1954.

Highlights:

- The powers of management of the temple were passed on to the King of Khordha after three years while the colonial government continued to retain some control.
- After India gained Independence, the Jagannath Temple Act was introduced in the year 1952, which came into effect in 1954.
- The Act contains provision on land rights of the temple, duties of the sevayat (priests), administrative powers of the Shri Jagannath Temple Managing Committee, rights and privileges of the Raja of Puri and other persons connected with the management and administration of the temple.
- The power will now be delegated to temple administration and concerned officials for sale and lease of land in the name of Jagannath temple.
- Unlike earlier, no approval will be required from the state government for the process.

- The Section 16 (2) of the act states that no immovable property taken possession of by the temple committee shall be leased out, mortgaged, sold or otherwise alienated except with the previous sanction of the State Government.

7. Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME)

Scheme.

Why in News?

- The Ministry of Food Processing Industries and NAFED (National Agricultural Cooperative Marketing Federation of India Limited) have recently launched six, One District One Product (ODOP) brands.

Highlights:

- It is under the Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFME) Scheme.
- It has signed an agreement with NAFED for developing 10 brands of selected ODOPs under the branding and marketing component of the PMFME scheme. Out of these, six brands are Amrit Phal, Cori Gold, Kashmiri Mantra, Madhu Mantra, Somdana, and Whole Wheat Cookies of Dilli Bakes.
- It adopts the One District One Product (ODOP) approach to reap the benefit of scale in terms of procurement of inputs, availing common services and marketing of products.
- ODOP for the scheme will provide the framework for value chain development and alignment of support infrastructure. There may be more than one cluster of ODOP products in one district.
- There may be a cluster of ODOP products consisting of more than one adjacent district in a State. The States would Identify food products for districts keeping in view the existing clusters and availability of Raw Material.
- The ODOP could be a perishable produce based or cereal based or a food item widely produced in an area. E.g. mango, potato, pickle, millet based products, fisheries, poultry, etc.

8. Worrying Trends in Nutrition Indicators in NFHS-5 Data

Why in News?

- The NFHS-5 factsheets for India and all states and Union territories are now out. At First Glance, it appears to be a mixed bag — much to cheer about, but concern areas remain.

Positives from the NFHS-5 survey:

- Change in demographic trends: For the first time since the NFHS 1992-93 survey, the sex Ratio is slightly higher among the adult population.
- Improvement in sex ratio at birth: For the first time in 15 years that the sex ratio at birth has Reached 929 (it was 919 for 1,000 males in 2015-16).
- The total fertility rate has also dropped from 2.2 per cent to a replacement rate of 2 per cent, albeit with not much change in the huge fertility divide between the high and low Fertility States.
- Improvement in literacy level of women: There has been an appreciable improvement in general literacy levels and in the percentage of women and men who have completed 10 years or more of schooling, which has reached 41 per cent and 50.2 per cent respectively.
- Improvements in health indicators: The health sector deserves credit for achieving a significant improvement in the percentage of institutional births, antenatal care, and children's Immunisation Rates.
- There has also been a consistent drop in neonatal, infant and child mortality rates — a decrease of around 1 per cent per year for neonatal and infant mortality and a 1.6 per cent decrease per year for under five mortality rate.

Nutrition: Area of Concern:

- Increase in anaemic people: India has become a country with more anaemic people since NFHS-4 (2015-16), with anaemia rates rising significantly across age groups, ranging from children below six years, adolescent girls and boys, pregnant women, and women between 15 to 49 years.
- Why anaemia is a concern? Adverse effects of anaemia affect all age groups — lower physical and cognitive growth and alertness among children and adolescents, and lesser capacity to learn and play, directly impacting their future potential as productive citizens.
- Further, Anaemia among adolescent girls (59.1 per cent) advances to maternal Anaemia and is a major cause of maternal and infant mortality and general morbidity and ill health in a community.
- The detailed report will explain why a dedicated programme like Anaemia Mukh Bharat which focused on IFA consumption failed to gain impetus.
- Slow pace of improvement in nutritional indicators: Between NFHS 4 and NFHS 5, the percentage of children below five years who are moderately underweight has reduced from 35.8 per cent to 32.1 per cent.

- Moderately stunted children have fallen from 38.4 per cent to 35.5 per cent, moderately wasted from 21 per cent to 19.3 per cent and severely wasted have increased slightly from 7.5 per cent to 7.7 per cent.
- Inadequate diet: The root cause for this is that the percentage of children below two years receiving an adequate diet is a mere 11.3 per cent, increasing marginally from 9.6 per cent in NFHS-4.

Way Forward:

- India's nutrition programmes must undergo a periodic review.
- The Integrated Child Development Services (ICDS), which is perceived as the Guardian of the Nation's Nutritional well-being must reassess itself and address critical intervention Gaps, both conceptually and programmatically, and produce rapid outcomes.

9. Green Energy Corridor (GEC) Phase-II

Why in News?

- Recently, the Cabinet Committee on Economic Affairs approved the scheme on Green Energy Corridor (GEC) Phase-II for Intra-State Transmission System (InSTS).

Highlights:

- Phase 1 of the Green Energy Corridor is already under implementation in Gujarat, Andhra Pradesh, Karnataka, Himachal Pradesh, Maharashtra, Madhya Pradesh, Tamil Nadu, and Rajasthan.
- It Is working for the grid integration and power evacuation of about 24GW of Renewable Energy.
- It will facilitate grid integration and power evacuation of approximately 20 GW of Renewable Energy (RE) power projects in seven States namely, Gujarat, Himachal Pradesh, Karnataka, Kerala, Rajasthan, Tamil Nadu and Uttar Pradesh.
- The transmission systems will be created over a period of five year from Financial Year 2021-22 to 2025-26.
- It Is targeted to be set up with a total estimated cost of Rs. 12, 031 crores, and the Central Finance Assistance (CFA) will be 33% of the project cost.
- The CFA will help In offsetting the Intra-State transmission charges and thus keep the power costs down.
- It aims at synchronizing the electricity produced from renewable resources, such as wind and solar, with the conventional power stations in the grid.

- It aims to achieve the target of 450 GW installed RE capacity by 2030.
- The objective of the GEC Is to evacuate approx. 20,000 MW of large-scale renewable power and improvement of the grid in implementing states.
- It will contribute to the long-term energy security of India and will promote ecologically sustainable growth by reducing carbon footprint.
- It will facilitate In generating large direct and indirect employment opportunities for both the skilled and Unskilled Personnel.

10. First Advance Estimates (FAE)

Why in News?

- Recently, the Ministry of Statistics and Programme Implementation (MoSPI) released the First Advance Estimates (FAE) for the current financial year (2021-22).
- According to MoSPI, India's Gross Domestic Product (GDP) will grow by 9.2% in 2021-22.

Highlights

- The FAE, first Introduced in 2016-17, are typically published at the end of the first week of January.
- They are the “first” official estimates of how GDP is expected to grow in that financial year.
- Apart from it, they are also the “advance” estimates because they are published long before the financial year (April to March) is over.
- The FAE Is published soon after the end of the third quarter or Q3 (October, November, December). However, they do not include the formal Q3 GDP data, which is published at the end of February as part of the Second Advance Estimates (SAE).
- The main significance of FAE lies in the fact that they are the GDP estimates that the Union Finance Ministry uses to decide the next financial year's budget allocations.
- From the Budget-making perspective, it is important to estimate the nominal GDP – both absolute level and its growth rate.
- This will further help in calculating Real GDP and inflation.
- The difference between the real and nominal GDP shows the levels of inflation in the year.

11. Citizenship (Amendment) Act, 2019 (CAA).

Why in News?

- Recently, the Ministry of Home Affairs (MHA) missed the deadline of notifying rules under the Citizenship (Amendment) Act, 2019 (CAA).

Highlights:

- Amidst the concerns related to CAA and for better clarity, the two parliamentary committees (committee on subordinate legislation) in the Lok Sabha and the Rajya Sabha had sought MHA to frame the rules that will govern the CAA.
- If the government does not make rules and regulations, a law or parts of it will not get implemented. The Benami Transactions Act of 1988 is an example of a complete law remaining unimplemented in the absence of regulations.
- The CAA provides citizenship on the basis of religion to six undocumented non-Muslim communities (Hindus, Sikhs, Buddhists, Jains, Parsis and Christians) from Pakistan, Afghanistan and Bangladesh who entered India on or before 31st December, 2014.
- It exempts the members of the six communities from any criminal case under the Foreigners Act, 1946 and the Passport Act, 1920.
- The two Acts specify punishment for entering the country illegally and staying here on expired visas and permits. : There are apprehensions that the CAA, followed by a country-wide compilation of the National Register of Citizens (NRC), will benefit non-Muslims excluded from the proposed citizens' register, while excluded Muslims will have to prove their Citizenship. Issues in the North-East contradicts the Assam Accord of 1985, which states that illegal Migrants, Irrespective of religion, heading in from Bangladesh after 25th March, 1971, would be deported. There are an estimated 20 million illegal Bangladeshi migrants in Assam and they have inalienably altered the demography of the state, besides putting a severe strain on the state's resources and economy.
- Critics argue that it is violative of Article 14 of the Constitution (which guarantees the right to equality and is applicable to both the citizens and foreigners) and the principle of Secularism enshrined in the Preamble of the constitution.

12. MHA seeks more time to Frame CAA Rules

Why in News?

- The Ministry of Home Affairs (MHA) has sought another extension from parliamentary committees to frame the rules of the Citizenship (Amendment) Act (CAA), 2019.

What is Citizenship Amendment Act (CAA), 2019?

- The act is sought to amend the Citizenship Act, 1955 to make Hindu, Sikh, Buddhist, Jain, Parsi, and Christian illegal migrants from Afghanistan, Bangladesh, and Pakistan, eligible for citizenship of India.

- In other words, it intends to make it easier for non-Muslim immigrants from India's three Muslim-majority neighbours to become citizens of India.
- Under The Citizenship Act, 1955, one of the requirements for citizenship by naturalization is that the applicant must have resided in India during the last 12 months, as well as for 11 of the previous 14 years.
- The amendment relaxes the second requirement from 11 years to 6 years as a specific condition for applicants belonging to these six religions, and the aforementioned three countries. It exempts the members of the six communities from any criminal case under the Foreigners Act, 1946 and the Passport Act, 1920 if they entered India before December 31, 2014.

Defining Illegal Migrants:

- Illegal migrants cannot become Indian citizens in accordance with the present laws.
- Under the CAA, an illegal migrant is a foreigner who: (i) enters the country without valid travel documents like a passport and visa, or (ii) enters with valid documents, but stays beyond the Permitted Time Period. Illegal migrants may be put in jail or deported under the Foreigners Act, 1946 and The Passport (Entry into India) Act, 1920.

Exceptions:

- The Bill provides that illegal migrants who fulfil four conditions will not be treated as illegal migrants under the Act. The conditions are:
- They are Hindus, Sikhs, Buddhists, Jains, Parsis or Christians;
- They are from Afghanistan, Bangladesh or Pakistan;
- They entered India on or before December 31, 2014;
- They are not in certain tribal areas of Assam, Meghalaya, Mizoram, or Tripura included in the Sixth Schedule to the Constitution, or areas under the "Inner Line" permit, i.e., Arunachal Pradesh, Mizoram, and Nagaland.

Controversy with the Act:

- **Country of Origin:** The Act classifies migrants based on their country of origin to include only Afghanistan, Pakistan and Bangladesh.
- **Other Religious Minorities Ignored:** It is unclear why illegal migrants from only six specified religious minorities have been included in the Act.
- **Defiance of Purpose:** India shares a border with Myanmar, which has had a history of persecution of a religious minority, the Rohingya Muslims.

- **Date of Entry:** It is also unclear why there is a differential treatment of migrants based on their date of entry into India, i.e., whether they entered India before or after December 31, 2014.

13. Hate speech in the Time of Free Speech

Why in News?

- The growing incidence of hate speeches, especially those targeting minorities, in combination with the judicial ambiguity has provided an opportunity to chart legislative Reforms.

Current Legal Provisions to Deal with hate Speech:

- Not defined in legal framework: Hate speech is neither defined in the Indian legal Framework nor can it be easily reduced to a standard definition due to the myriad forms it can take.
- The Supreme Court, in *Pravasi Bhalai Sangathan v. Union of India* (2014), described hate speech as “an effort to marginalise individuals based on their membership in a group” and one that “seeks to delegitimise group members in the eyes of the majority, reducing their Social Standing and Acceptance within society.”
- The Indian Penal Code illegalises speeches that are intended to promote enmity or prejudice the maintenance of harmony between different classes.
- Specifically, sections of the IPC, such as 153A, which penalises promotion of enmity between different groups;
 - ✓ 153B, which punishes imputations, assertions prejudicial to national integration;
 - ✓ 505, which punishes rumours and news intended to promote communal enmity, and
 - ✓ 295A, which criminalises insults to the religious beliefs of a class by words with deliberate or Malicious Intention.
- Summing up various legal principles, in *Amish Devgan v. Union of India* (2020), the Supreme Court held that “hate speech has no redeeming or legitimate purpose other than Hatred towards a particular group”.
- Lack of established legal standard: Divergent decisions from constitutional courts expose the lack of established legal standards in defining hate speech, especially those propagated via the digital medium.

Suggestions:

- The Law Commission of India, in its 267th report, recommended the insertion of two new provisions to criminalise and punish the propagation of hate speech.

- The 189th Report of the Parliamentary Standing Committee on Home Affairs, in 2015, recommended the incorporation of separate and specific provisions in the Information Technology Act to deal with online hate speech.
- Specialised legislation for social media: Much of the existing penal provisions deal with hate speech belong to the pre-Internet era.
- The need of the hour is specialised legislation that will govern hate speech propagated via the Internet and, especially, social media.
- Recognise hate speech as reasonable restriction to free speech: Taking cue from best International Standards, it is important that specific and durable legislative provisions that combat hate speech, especially that which is propagated online and through social media.
- Ultimately, this would be possible only when hate speech is recognised as a reasonable restriction to Free Speech.

14. Quarterly Employment Survey (QES)

Why in News?

- The Labour Bureau, Ministry of Labour and Employment released the results of the Quarterly Employment Survey (QES) for the Second Quarter of 2021 (July-September).

Highlights:

- The Quarterly Employment Survey (QES) is part of the All-India Quarterly Establishment-based Employment Survey (AQEES).
- It covers establishments employing 10 or more workers in the organised segment in 9 sectors.
- These nine sectors are Manufacturing, Construction, Trade, Transport, Education, Health, Accommodation and Restaurant, IT/ BPO and Financial Services.
- These sectors account for a majority of the total employment in non-farm establishments.
- It's objective is to enable the government to frame a “sound national policy on employment.”
- The release of this survey emanates from India's ratification of the International Labour Organization's (ILO) Employment Policy Convention, 1964.
- This requires the ratifying countries to implement “an active policy designed to promote full, productive and freely chosen employment.”
- India does not have a National Employment Policy (NEP) yet.

15. Vulnerable Witnesses

Why in News:

- Recently, the Supreme Court (SC) expanded the meaning of vulnerable witnesses to also include among others sexual assault victims, those with mental illness and people with speech or hearing impairment.

Highlights:

- Vulnerable witnesses will not be limited to mean only child witnesses. It will also include
- Age-neutral victims of sexual assault.
- Gender-neutral victims of sexual assault, under section 377 IPC (Unnatural Offences).
- Witnesses suffering from mental illness as defined in Mental Healthcare Act, 2017.
- Witnesses with threat perception and any speech or hearing impaired individual or person suffering from any other disability.
- The SC directed that all High Court's (HC) adopt and notify a Vulnerable Witness Deposition Centre (VWDC) scheme within a period of two months
- VWDC will provide a safe and barrier-free environment for recording the evidence of vulnerable witnesses.
- The SC asked HC's to ensure that there is one VWDC in each district.
- These VDWC should be established in close proximity to Alternate Dispute Resolution (ADR) Centres.

16. Interstate River Water Disputes Act, 1956

Why in News?

- Karnataka CM has said irrigation projects are bogged down by river water sharing disputes and asked the Centre to 'revisit the Inter-State River Water Disputes (IWRD) Act since the law is creating more disputes than Resolving Them'.

IWRD Act:

- The IWRD Act, 1956 aims to resolve the water disputes that would arise in the use, control and distribution of an Interstate River or River Valley.
- Article 262 of the Indian Constitution provides a role for the Central government in Adjudicating Conflicts surrounding inter-state rivers that arise among the state/regional Governments.
- This act is confined to states of India and not applicable to union territories.

- Only concerned state governments are entitled to participate in the tribunal adjudication and Non-Government Entities are not Permitted.

Jurisdictions Over Rivers:

- River waters use / harnessing is included in states jurisdiction.
- However, Union government can make laws on regulation and development of inter-State rivers and river valleys to the extent such water resources are directly under its control when expedient in the public interest.
- When union government wants to take over a interstate river project under its control by law, it has to take approval of the riparian states' legislature assemblies before passing such bill in the Parliament per Article 252 of the constitution.
- When public interest is served, President may also establish an interstate council as per Article 263 to inquire and recommend on the dispute that has arisen between the states of India.

Resolution of Disputes:

- Dispute resolution is a layered process, as mandated by the ISWD Act.
- After receiving a complaint from a state, the Union government first tries to mediate. It is only when negotiations fail that the Centre is required to form a tribunal to adjudicate the Dispute.
- 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 Tribunal is constituted.

Constitution of Tribunal:

- Whenever the riparian states are not able to reach amicable agreements on their own in sharing of an interstate river waters, section 4 of IRWD Act provides for a Tribunal.
- The tribunal shall not only adjudicate but also investigate the matters referred to it by the central government and forward a report setting out the facts with its decisions.
- The tribunal responsibility is not limited to adjudication of issues raised by the concerned states and but investigation of other aspects such as water pollution, water quality deterioration, flood control etc., Time-frame for dispute resolution
- The tribunals have been allotted three years to arrive at a final decision, extendable by two years. The 2002 Amendment to the ISWD Act specified a one-year limit on the timeline allowed to carry out the process of dispute resolution.

Active Tribunals in India:

- Ravi & Beas Water Tribunal (1986) – Punjab, Haryana, Rajasthan
- Krishna Water Disputes Tribunal II (2004) – Karnataka, Telangana, Andhra Pradesh, Maharashtra
- Mahadayi Water Disputes Tribunal (2010) – Goa, Karnataka, Maharashtra
- Vansadhara Water Disputes Tribunal (2010) – Andhra Pradesh & Odisha
- Mahanadi Water Disputes Tribunal (2018) – Odisha & Chhattisgarh

Need for the IWRD Act:

- **Major inter-state River Basins:** India has 25 major river basins, with most rivers flowing across states.
- **Equitable Distribution of water:** As river basins are shared resources, a coordinated approach between the states is necessary for the preservation, equitable distribution and sustainable utilization of River Water.
- **Hydro-politics:** Much recently, interstate rivers in India have become sites of contestations, fuelled by conflicting perceptions of property rights, flawed economic Instruments for Food Security.
- **Sustainability:** This has led to a lack of an integrated ecosystems approach, and the prevalence of reductionist hydrology for water resource development.

Issues with IRWD Act:

- **Centre's dilemma:** Since river water falls within the ambit of State Subjects, its governance remains confined to the limits of the state political discourse.
- **Interference of Judiciary:** The apex court has limited the role of the tribunals to quantification and allocation of water between riparian states, and its own role is to be an interpreter of the awards and agreements.
- **Colonial Award:** The history of colonial rule has led to the creation of asymmetries between states, and the present water disputes stem from the reproduction of this imperial and colonial power relation.
- **Structural Issues:** Various operational characteristics of the tribunals as problematic, since they do not adhere to any established system.
- **Operational Issues:** For instance, the sittings are not routine, the functioning is outside the regular court system, and day-to-day or week-to-week hearings are few and far in between.

Why this has become a Sensitive Topic?

- Associated ethnicity: At the state level, river water is politically perceived as part of the larger issue of “regional sharing of resources,” which is linked with the ethnic and cultural identity of the state and its people.
- Matter of autonomy: The political narrative around river disputes is subsumed within the question of regional rights, and any possibility of water sharing is seen as a compromise or infringement on the regional autonomy of a state.
- Identity politics: Hence, the political narrative around the river disputes jumps to a larger scale of identity politics.

Way forward:

- For such dispute resolution, all other recourses such as mediation and conciliation must remain viable options. These should operate simultaneously along with adjudication and political consensus among the riparian states. Directly approaching the Supreme Court may result in adversarial outcomes, with the Conflict Reaching a point of no return.

17. Desh ke Mentor Programme

Why in News?

- The National Commission for Protection of Child Rights (NCPCR) has recently suggested that the Delhi government suspend its flagship ‘Desh ke Mentor’ Programme till “the time when all the loopholes pertaining to the safety of the children are overhauled.

Highlights:

- It was launched In October 2021, aiming at connecting students in classes IX to XII with voluntary mentors.
- People between the ages of 18 and 35 can sign up to be mentors through an app created by a team at the Delhi Technological University and will be connected with students based on mutual interests.
- The mentorship entails regular phone calls for a minimum of two months, which can optionally be carried on for another four months. The Idea is for the young mentors to guide students through higher education and career options, preparation for higher education entrance exams, and dealing with the pressure of it all.
- So far, 44,000 people have signed up as mentors and have been working with 1.76 lakh children. Assigning children to a mentor of the same gender as them does not necessarily assure their safety from abuse.

- Lack of police verification of the mentors.
- A psychometric Test Is not a full proof assessment of a person in terms of potential threat to any child. Limiting interactions to phone calls also does not ensure the safety of children since “child related crime can be initiated through phone calls as well.”
- The responsibility and accountability of preventing children from such situations lies with the Department. The consent of parents cannot be used as a cushion in case of any Untoward Incident.

18. Antrix -Devas Deal

Why in News?

- Recently, the controversial deal between Indian Department of Space’s commercial entity Antrix and Bengaluru-based startup Devas Multimedia has been under the scanner for more than a decade now.

Highlights:

- The International Telecommunication Union granted India S-band spectrum in the 1970s.
- By 2003, there was a fear that the spectrum would be lost if not used effectively; 40 MHz of S-band was given to the Department of Telecom (DoT) for terrestrial use.
- 70 Mhz was to be put to efficiently used by the Department of Space (DoS) or in effect to be used by Indian Space Research Organisation (ISRO).
- Global Negotiations for Growth of Communication Systems: Initially, an MoU was signed by Forge (a US Consultancy) and Antrix in July 2003 for use of the satellite spectrum for the growth of communication systems in India, but later a start-up was envisaged, and Devas Multimedia was floated.
- In 2005, the deal was signed to provide multimedia services to mobile users using the leased S-band satellite spectrum.
- Under the deal, ISRO would lease to Devas two communication satellites (GSAT-6 and 6A) for 12 years.
- In return, Devas would provide multimedia services to mobile platforms in India using S-band transponders on the satellites.
- As a result of the deal, Devas introduced and utilised technologies like never before and was a huge revenue generator for Antrix.
- The deal was Cancelled in 2011 on the ground that the auction of the broadband spectrum was mired in Fraud.

- The decision was taken in the midst of the 2G scam and allegations that the Devas deal involved the Handing over of communication spectrum valued at nearly Rs 2 lakh crore for a pittance. The Government also held that it needed the S-band satellite spectrum for national security and other Social Purposes.
- Meanwhile, in August 2016, the Central Bureau of Investigation (CBI) filed a charge sheet against officials from Devas, ISRO and Antrix linked to the deal for “being party to a Criminal Conspiracy”.
- Amongst them, were the former ISRO chairman G Madhavan Nair and former Antrix executive director K R Sridharamurthi.
- International Tribunal Arbitration: Devas Multimedia initiated arbitration against the annulment at the International Chambers of Commerce (ICC).
- Two separate arbitrations were also initiated under the Bilateral Investment Treaty (BIT) by Mauritius investors in Devas Multimedia under the India-Mauritius BIT and by Deutsche Telekom -- a German company -- under the India- Germany BIT.
- India lost all three disputes and has to pay a total of USD 1.29 billion in damages.
- Due to the Indian Government not paying the compensation, a French court has recently ordered the freezing of Indian government property in Paris, to enforce a USD 1.3 billion arbitration award. Recently, the Supreme Court reiterated the Government’s 2011 stance and directed the winding up of Devas Multimedia business in India.
- The Supreme Court also upheld the previous award by the National Company Law Appellate Tribunal (NCLAT) and National Company Law Tribunal (NCLT).
- Antrix filed a plea in the NCLT in January 2021 for the liquidation of Devas in India, which it said was incorporated in a fraudulent manner. These tribunals directed the winding up of Devas Multimedia and appointed a provisional liquidator for the purpose.

19. Department of Personnel and Training (DoPT)

Why in News?

- Recently, the Department of Personnel and Training (DoPT) wrote to the States that the Union government proposes to amend Rule 6 (deputation of cadre officers) of the Indian Administrative Service (Cadre) Rules 1954.

Highlights

- In normal practice, the Centre asks every year for an “offer list” of officers of the All India Services willing to go on central deputation, after which it selects officers from that list.

- Officers have to get a no-objection clearance from the State government for Central deputation.
- States have to depute the All India Services (AIS) officers, to the Central government offices and at any point, it cannot be more than 40% of the total cadre strength.
- If the State government delays posting a State cadre officer to the Centre and does not give effect to the Central government's decision within the specified time, the officer shall stand relieved from cadre from the date as may be specified by the Central government.
- The Centre will decide the actual number of officers to be deputed to the Central government in consultation with the State and the latter should make eligible the names of such officers.
- In case of any disagreement between the Centre and the State, the matter shall be decided by the Central government and the State shall give effect to the decision of the Centre. In specific situations where services of cadre officers are required by the Central Government in "public interest," the State shall give effect to its decisions within a specified Time.
- The DoPT said that it is taking this decision in the wake of a shortage of All India Services (AIS) officers in Union Ministries.
- According to the DoPT, states are not sponsoring an adequate number of officers for Central deputation, and the number of Officers is not sufficient to meet the requirement at the Centre. It is against the spirit of Cooperative Federalism.
- The proposed amendment would weaken the State's political control over the bureaucracy.
- It would hobble effective governance and create avoidable legal and administrative disputes.
- The Centre could weaponise the Bureaucracy against an elected State Government.

20. Hindu Succession Act (HSA) of 1956

Why in News?

- Recently, the Supreme Court (SC) has ruled that daughters will have equal rights to their father's property even prior to the enactment of the Hindu Succession Act (HSA) of 1956.
- The case involved a dispute over the property of a person who died in 1949 leaving behind a daughter who also died issueless in 1967.
- Earlier, the trial court held that since the person had died prior to the enforcement of HSA, 1956 therefore the petitioner and her other sisters were not the heirs as on the date of his

death and was not entitled to partition of share in the suit properties. Later, the High Court, too, dismissed the appeal against the trial court.

Key Points:

- **Daughters Inheritance:** It ruled that the property of a man who had died without executing a will and is survived only by a daughter will devolve upon the daughter and not others such as his brother.
- Earlier in 2020, the SC has already expanded the Hindu women's right to be the coparcener (joint legal heir) and inherit ancestral property on terms equal to male heirs.
- **Ancient Texts & Judicial Pronouncements:** The SC referred to ancient texts (smritis), commentaries by various renowned learned persons and even judicial pronouncements which have recognised the rights of several female heirs, the wives and the daughter's being the foremost of them.
- Tracing the sources of customary Hindu law on inheritance, the SC discussed Mitakshara law.
- SC also looked into Vyavastha Chandrika, a digest of Hindu Law by Shyama Charan Sarkar Vidya Bhushan which quoted 'Vrihaspati' as saying 'the wife is pronounced successor to the wealth of her husband, in her default, the daughter. As a son, so does the daughter of a man proceed from his several limbs.
- The SC also noted that the book quoted Manu as saying "the son of a man is even as himself, and the daughter is equal to the son.
- How then can any other inherit his property, notwithstanding the survival of her, who is, as it were, himself ". Old Law: Right of a widow or daughter to inherit the self-acquired property or share received in partition of a coparcenary property of a Hindu male dying intestate is well recognised not only under the old customary Hindu Law.
- If a property of a male Hindu dying intestate is a self-acquired property or obtained in partition of a coparcenary or a family property, the same would devolve by inheritance and not by survivorship, and a daughter of such a male Hindu would be entitled to inherit such property in preference to other collaterals".
- **Property After Woman's Death:** The court also said that if a female Hindu dies intestate without leaving any issue, then the property inherited by her from her father or mother would go to the heirs of her father whereas the property inherited from her husband or father-in-law would go to the heirs of the husband.

- In case a female Hindu dies leaving behind her husband or any issue, then Section 15(1)(a) of the HSA 1956 will come into operation and the properties left behind including the properties which she inherited from her parents would devolve simultaneously upon her husband and her issues.

21. Budgeting for the Education Emergency

Why in News?

- Faced with an unprecedented education emergency, this is the time to substantially ramp up public spending on education and make it more effective.

Low Allocation for Education:

- UNESCO's 2030 framework for action suggests public education spending levels of between 4% and 6% of GDP and 15%-20% of public expenditure.
- A recent World Bank study notes that India spent 14.1 % of its budget on education, compared to 18.5% in Vietnam and 20.6% in Indonesia, countries with similar levels of GDP.
- But since India has a higher share of population under the age of 19 years than these countries, it should actually be allocating a greater share of the budget than these countries. Public spending on education in most States in India was below that of other middle-income countries even before the pandemic.
- Most major States spent in the range of 2.5% to 3.1% of State income on education, according to the Ministry of Education's Analysis of Budgeted Expenditure on Education.
- This compares with the 4.3% of GDP that lower-middle-income countries spent, as a group, between 2010-11 and 2018-19.
- In the 2021-22 Budget, the Central Government's allocation for the Education Department was slashed compared to the previous year, even though the size of the overall budget increased. Of the major States and Delhi, eight either reduced or just about maintained their budget Allocation for education departments in 2021-22 compared to 2020-21.

Way Forward:

- The vast majority of the 260 Million Children enrolled in preschool and school, especially in Government Schools, did not have meaningful structured learning opportunities during the 20 months of school closures.
- **Infusion of Resources:** The education system now needs not only an infusion of resources for multiple years, but also a strengthened focus on the needs of the poor and

Disadvantaged Children. What it is spent on and how effectively resources are used are important. It is clear what additional resources are required for.

- **The Needs Include:** back-to-school campaigns and re-enrolment drives; expanded nutrition programmes; reorganisation of the curriculum to help children learn language and mathematics in particular, and support their socio-emotional development, especially in early grades; additional learning materials; teacher training and ongoing support; additional education programmes and collection and analysis of data.
- **Focus on Teacher Training:** How does expenditure on technology compare with the amounts spent on Teacher Training, which represents just 0.15% of total estimated Expenditure on Elementary Education? Teachers are central to the quality of education, so why does India spend so little on teacher training?

The opacity of Education Finance data in India:

- The opacity of education finance data makes it difficult to comprehend this.
- For instance, the combined Central and State government spending on education was Estimated to be 2.8% of GDP in 2018-19, according to the Economic Survey of 2020-21.
- This figure had remained at the same level since 2014-15.
- On the other hand, data from the Ministry of Education indicates that public spending on Education had reached 4.3% of GDP in the same year, rising from 3.8% of GDP in 2011-12.
- The difference in the figures is due to the inclusion of expenditure on education by departments other than the Education Department. Including expenditure on education by, for example, the Ministry of Tribal Affairs, the Ministry of Social Justice and Empowerment (on Anganwadis, scholarships, etc.), the Ministry of Science and Technology (for higher education) is of course legitimate.
- However, the composition of these expenditures is not readily available.

22. Worries over the electoral bond scheme go beyond its Unconstitutionality

Why in News?

- Ever since its introduction, the electoral bond scheme has Envenomed the Democratic process, by destroying altogether any notion of Transparency in political funding.

Issue of Anonymity in Electoral Bond:

- The electoral bond scheme is designed to allow an individual, or any “artificial juridical person”, including body Corporates, to purchase bonds issued by the State Bank of India during notified Periods of time.

- These instruments are issued in the form of promissory notes, and in denominations ranging from ₹1,000 to ₹1 crore.
- Once purchased, the buyer can donate the bond to any political party of their choice and the party can then encash it on demand.

Supreme Court's Opinion:

- The Supreme Court has allowed the scheme to continue unabated and has denied an interim stay on its operation.
- In one such provisional order, the Court asserted that the bonds were not, in fact, Anonymous.
- According to the Court, since both the purchase and the encashment of bonds are made through banking channels, all it would take for a person to glean the identity of a donor was for her to look through every corporation's financial statement — these records, the Court said, ought to be available with the Registrar of Companies.
- What the order ignored was that there is no attendant obligation on political parties to provide details to the public on each donation received by them through electoral bonds.
- Companies are also under no obligation to disclose the name of the party to whom they made the Donation.

Violation of Voter's Right:

- The Supreme Court has consistently held that voters have a right to freely express themselves during an election and that they are entitled to all pieces of information that give purpose and vigour to this right.
- Surely, to participate in the electoral process in a meaningful manner and to choose one's votes carefully, a citizen must know the identity of those backing the candidates.
- Electoral bond does not eliminate the role of black money in funding elections:
- As affidavits filed by the Election Commission of India in the Supreme Court have demonstrated, the scheme, if anything, augments the potential role of black money in Elections.
- It does so by, among other things, removing existing barriers against shell entities and dying concerns from donating to political parties.
- Moreover, even if the bonds were meant to eliminate the presence of unaccounted currency, it is difficult to see what nexus the decision to provide complete anonymity of the Donor bears to this objective.

- It is for this reason that the Reserve Bank of India reportedly advised the Government against the scheme's introduction.

Conclusion:

- The worries over the electoral bond scheme, however, go beyond its patent unconstitutionality. This is because in allowing anonymity it befools the basis of our democracy and prevents our elections from being truly free and fair.

23. Anganwadis should Provide Early Childhood Care and Education

Why in News?

- The National Education Policy, 2020 has rightly highlighted the importance of early childhood care and education (ECCE), vital for the young child's early cognitive, social, and emotional development.
- Need for focus on early childhood care and education (ECCE):
- The National Family Health Survey-5 (NFHS-5) finds only 13.6 per cent of children enrolled in pre-primary schools.
- With its overriding focus on health and nutrition, ECCE has hitherto been the weakest link of the anganwadi system.
- Multiple administrative duties have left anganwadi workers with little time for ECCE.
- A child's early learning begins at birth, initially through stimulation, play, interactions, non-verbal and verbal communication.
- Unfortunately, due to a lack of parental awareness compounded by the daily stresses of poverty, disadvantaged households are unable to provide an early learning environment.
- The existing system at best serves the age group of 3-6 years, ignoring infants and toddlers.

Way forward:

1. A meaningful ECCE Programme in Anganwadis

- A meaningful ECCE programme in anganwadis is not only a more intelligent and cost-effective strategy but is also feasible to implement through seven concerted actions.
 1. Activity-based framework which reflect local context: To design and put in place a meaningful activity-based ECCE framework that recognises the ground realities with autonomy to reflect the local context and setting.
 2. Remove non-ICDS work: Routine tasks of anganwadi workers can be reduced and non-ICDS work, such as surveys, removed altogether.

3. Extend Anganwadi time: Anganwadi hours can be extended by at least three hours by providing staff with an increase in their present remuneration, with the additional time devoted for ECCE.

Karnataka has already taken the lead; its anganwadis work from 9.30 am to 4 pm.

This will have the added benefit of serving as partial daycare, enabling poor mothers to earn a livelihood.

4. Change in policy mindset: ICDS needs a change in policy mindset, both at central and state levels, by prioritising and monitoring ECCE.
5. Engagement with parents: Anganwadi workers must be re-oriented to closely engage with parents, as they play a crucial role in the cognitive development of young children. Responsive parenting requires both parents to play an active role in ECCE activities at home; therefore, anganwadi workers should be asked to consciously engage with fathers too.

Appropriate messaging and low-cost affordable teaching materials can be designed and made accessible to parents.

6. Activity-based play material: ICDS must supply age-appropriate activity-based play material in adequate quantities regularly, and anganwadi workers encouraged to utilise them in a liberal manner.
7. Invest in research and training: States should invest in research and training to support early childhood education, and ensure that the ECCE programme is not a downward Extension of School Education.

2. Pre-primary sections in Government Primary Schools:

- Some educationists have suggested that owing to the high workload of anganwadi workers, ECCE in anganwadis would remain a non-starter.
- Therefore, all government primary schools should open pre-primary sections, with anganwadis limiting themselves to the 0-3 age group.
- Challenges: It would require a massive outlay to build over a million classrooms with a million nursery teachers and helpers — even a conservative estimate would put the additional annual outlay at over Rs 30,000 crore.
- Moreover, with child stunting levels at 35 per cent in India, would children enrolled in pre-schools would require supplementary nutrition and health monitoring.
- This would overburden the nursery teacher.
- Nearly 1.4 million anganwadis of the Integrated Child Development Services (ICDS) across India must provide ECCE for the millions of young children in low-income households.

4. SCIENCE & TECHNOLOGY

1. Pig's Heart Beating Inside Human

Why in News?

- Recently, doctors Transplanted a pig heart into a patient in a last effort to save his life, in Maryland hospital in USA. It was done for the first time in the history of medical.

About the News:

- The patient is doing well three days after this highly experimental surgery.
- This marks a significant step in the decades-long debate on using animal organs for life-saving transplants. However, it is too soon to know, if the operation will work. As per Doctors at University of Maryland Medical Center, transplant highlighted that heart from a genetically modified animal can function in human body, without immediate Rejection.

Who was the Patient?

- The patient was David Bennett aged 57. He knew there was no guarantee of whether the experiment would work. But he was ready for the operation because he was dying and was ineligible for a Human Heart Transplant.

Why this Experiment was Conducted?

- There is a huge shortage of human organs, which are donated for transplant. This drives scientists to figure out how to use animal organs for transplant instead.
- In 2021, there were just around 3,800 heart transplants in the U.S. so, if this experiment works, there will be endless supply of these organs from animals for patients.

How about Prior Attempts?

- Prior attempts of such transplants have failed, largely. This is because, patients' bodies rapidly rejected the Animal Organ. For instance in 1984, Baby Fae, who was a dying infant, lived for 21 days with a Baboon Heart.

How was the Recent Transplant Different?

- In the recent transplant, Maryland surgeons used a heart from a pig after it underwent Gene-Editing in a bid to remove a sugar in its cells which is Responsible for hyper-fast organ Rejection.

About Xenotransplantation:

- Xenotransplantation or heterologous transplant, is the transplantation of living cells, organs or tissues from one species to another. Such cells, organs or tissues are called xenografts or xenotransplants.

- The technique of Xenotransplantation of human tumour cells into Immunocompromised mice is often used in Pre-Clinical Oncology Research.

2. Government Response Awaited on law on inter-faith Marriages

Why in News?

- The law that governs inter-faith marriages in the country, the Special Marriage Act (SMA), 1954, is being challenged for endangering the lives of young couples who seek refuge under it.

About the News:

- More than a year after a writ petition was moved before the Supreme Court, seeking striking down of several of its provisions, the government is yet to submit its response.
- The petition has sought to quash section 6 and 7 of SMA, which mandates publication of the public notice, on the ground that it is unreasonable and arbitrary.
- The petitioner argues that the 30-day period offers an opportunity to kin of the couple to Discourage an inter-caste or Inter-Religion Marriage.

What are Interfaith Marriages?

- The matrimonial relationship developed between two individuals having different religious faiths. Although marrying into a different religion is a matter of choice of an adult, there are certain issues Regarding the same.

Issues with Interfaith Marriages:

- Interfaith marriages are believed to be a forced conversion of one of the spouses (mostly women).
- As per the Muslim Personal law, in order to get married to a non-Muslim, conversion of religion is the only way.
- Hindu religion allows only monogamy and those who want to marry second time take another course.
- There is no provision regarding caste determination of children born out of such marriages. The Special Marriage Act, 1954 is not compatible with backwardness of the society. There is debate over the validity of Article 226 in context of annulling the interfaith marriage by High Court.

About the Special Marriage Act:

- The Special Marriage Act is a special law enacted to provide for a unique form of marriage by registration wherein the parties to the marriage do not have to renounce their religion.

- This Act includes Hindus, Muslims, Christians, Sikhs, Jains, and Buddhists marriages.
- This act applies to all Indian states, except Jammu & Kashmir.
- This Act applies not only to Indian citizens who belong to different castes and religions but also to Indian nationals who live abroad.

Requirements for the Special Marriage:

- The Fundamental Requirement under this Act for a valid marriage is the consent of both parties to the Marriage.
- If both parties to the marriage are willing to marry each other, that's enough; caste, religion, race, etc. is not a Restriction.

Conditions for Marriage:

- The bridegroom must be at least 21, and at the time of the marriage, the bride must be at least 18 years of age. This is the minimum age limit respectively for a boy/girl to marry.
- At the time of their Marriage, both parties must be monogamous; i.e., they must be unmarried and at that time should not have any living spouse.
- In order to be able to decide for themselves, the parties should be mentally fit, i.e., they must be sane at the time of Marriage.

Challenges with Contemplating Laws for Interfaith Marriage:

- Contemplating laws to regulate matrimonial relationships between two consenting adults would not be just against the constitutional guarantees but would offend the very notion of individuality and basic freedoms.
- Interference of the law in an individual's choice of marriage violates the existing constitutional rights such as the Right to equality, Right to Freedom & Personal Liberty, Freedom of Religion and Right to Life.
- **Article 21:** It declares that no person shall be deprived of his life or personal liberty except according to the procedure established by law. This right is available to both Citizens and Non-Citizens.
- **Article 25** of the Indian constitution provides the freedom to practice any religion of one's choice and Personal Laws of the religions have specified various laws relating to marriage for the followers of that religion.
- Hence, in India inter-faith marriages are allowed as the constitution allows one to convert to a different religion from what one was born with and further the personal laws of the religion have provisions.

Way Forward:

- In order to avoid inclusion of any further laws, there should be acceptance of the special marriage act, 1954 at the mental and social level.
- The rights should not be exploited; conversion of religion for marriage only is not at all wise.
- The marriage of two adults is a complete matter of their own choice, neither a law is to impose any decision, nor any individual. The Freedom of decision of his/ her marriage shall lie with the person only. The Need is to Accept the fact.

3. Probe sought into Pegasus case

Why in News?

- Supreme Court advocate Manohar Lal Sharma has circulated in the media a signed online copy of a plea he claims to have filed in the Supreme Court for an investigation into an allegation made in a New York Times report that India bought Pegasus spyware from NSO of Israel.

Historical Background of the News:

- The Apex Court stressed that the power of the state to snoop in the name of national security into the “sacred private space” of individuals is not absolute.
- The court said it consciously avoided “political thickets” but could not cower when allegations involved a “grave” threat to the privacy and free speech of the entire citizenry and raised the possibility of involvement of the Government, or even a foreign power, behind the surveillance.
- The court said the petitions filed before it, including ones by veteran journalists N. Ram and Sashi Kumar, Editors Guild of India and victims of alleged snooping, had raised “Orwellian concerns” about an all-pervasive technology like Pegasus.
- The court said India could not remain mute in the face of Pegasus allegations when other countries across the globe had taken them seriously.
- A Bench led by Chief Justice of India N.V. Ramana had, in a 46-page order on October 27, set up an expert technical committee monitored by a retired judge of the Supreme Court, Justice R.V. Raveendran, to inquire into the allegations of spying and file a report.
- The order came after the Union government did not file a “detailed affidavit” in the court in response to the petitions, citing national security reasons, among others.

- The Justice Raveendran committee recently invited persons who suspect themselves of being snooped on to come forward and hand over their electronic equipment for technical examination to detect the presence of the spyware.

What is Pegasus?

- It is a type of malicious software or malware classified as a spyware designed to gain access to devices, without the knowledge of users, and gather personal information and relay it back to whoever it is that is using the software to spy.
- Pegasus has been developed by the Israeli firm NSO Group that was set up in 2010.
- The earliest version of Pegasus discovered, which was captured by researchers in 2016, infected phones through what is called spear-phishing – text messages or emails that trick a target into clicking on a malicious link. Since then, however, NSO's attack capabilities have become more advanced. Pegasus infections can be achieved through so-called “zero-click” attacks, which do not require any interaction from the phone's owner in order to succeed. These will often exploit “zero-day” vulnerabilities, which are flaws or bugs in an operating system that the mobile phone's manufacturer does not yet know about and so has not been able to fix.

Who were the Targets?

- Human Rights activists, journalists and lawyers around the world have been targeted with phone malware sold to authoritarian governments by an Israeli surveillance firm.
- Indian ministers, government officials and opposition leaders also figure in the list of people whose phones may have been compromised by the spyware.
- In 2019, WhatsApp filed a lawsuit in the US court against Israel's NSO Group, alleging that the firm was incorporating cyber-attacks on the application by infecting mobile devices with malicious software.

Recent Steps Taken in India against Cyber Crime:

- **Cyber Surakshit Bharat Initiative:** It was launched in 2018 with an aim to spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.
- **National Cyber security Coordination Centre (NCCC):** In 2017, the NCCC was developed to scan internet traffic and communication metadata (which are little snippets of information hidden inside each communication) coming into the country to detect real-time cyber threats.

- **Cyber Swachhta Kendra:** In 2017, this platform was introduced for internet users to clean their computers and devices by wiping out viruses and malware.
- **Indian Cyber Crime Coordination Centre (I4C):** I4C was recently inaugurated by the government.
- **National Cyber Crime Reporting Portal** has also been launched pan India.
- **Computer Emergency Response Team - India (CERT-IN):** It is the nodal agency which deals with cybersecurity threats like hacking and phishing.
- **Legislations in India:**
 - ✓ Information Technology Act, 2000.
 - ✓ Personal Data Protection Bill, 2019.

International Mechanisms:

- **International Telecommunication Union (ITU):** It is a specialized agency within the United Nations which plays a leading role in the standardization and development of telecommunications and cyber security issues.
- **Budapest Convention on Cybercrime:** It is an international treaty that seeks to address Internet and computer crime (cybercrime) by harmonizing national laws, improving investigative techniques, and increasing cooperation among nations. It came into force on 1st July 2004. India is not a signatory to this convention.

4.1 SCIENCE & TECHNOLOGY SNIPPETS

1. One Nation-One Grid-One Frequency

Why in News?

- The Power Grid Corp. of India Ltd (PGCIL) has recently celebrated the anniversary of operationalization of One Nation-One Grid-One Frequency i.e National Grid.

Highlights:

- The National Grid Management on a Regional Basis started in the sixties.
- The Indian Power system for planning and operational purposes is divided into five regional grids.
- The integration of regional grids, and thereby establishment of National Grid, was conceptualised in the early nineties.
- Initially, State grids were interconnected to form a regional grid and India was demarcated into 5 regions namely Northern, Eastern, Western, North Eastern and Southern region.

- In 1991 North Eastern and Eastern grids were connected. Further, in 2003, Western region grid was connected with it.
- In August 2006 North and East grids were interconnected thereby 4 regional grids are synchronously connected forming a central grid operating at one frequency.
- On 31st December 2013, the southern Region was connected to the Central Grid. Thereby achieving 'One Nation, One Grid, One Frequency'.
- All possible measures are taken to ensure that the grid frequency always remains within the 49.90-50.05 Hz (hertz) band.
- Presently, the country has a total inter-regional transmission capacity of about 1,12,250 MW which is expected to be enhanced to about 1,18,740 MW by 2022
- Matching Demand-Supply: Synchronisation of all regional grids will help in optimal utilization of scarce natural resources by transfer of Power from Resource centric regions to Load Centric Regions.
- Development of Electricity Market: Further, this shall pave the way for establishment of a vibrant Electricity market facilitating trading of power across regions.

4. Semiconductor

Why in News?

- There has recently been an abrupt and cascading shortage of semiconductors worldwide.

Highlights:

- Semiconductors are materials which have a conductivity between conductors (generally metals) and non-conductors or insulators (such as most ceramics). Semiconductors can be pure elements, such as silicon or germanium, or compounds such as gallium arsenide or Cadmium Selenide.
- Conductivity is the measure of the ease at which an electric charge or heat can pass through a material.
- They are also known as integrated circuits or more commonly just chips; they may be the tiniest yet most exacting product ever manufactured on a global scale
- It's an electric circuit with many components such as transistors and wiring formed on a semiconductor wafer. An electronic device comprising numerous of these components is called Integrated Circuit (IC), and can be found in electronic devices such as computers, smartphones, appliances, gaming hardware and medical equipment.

- These devices find widespread use in almost all industries, especially in the automobile industry. Electronic parts and components today account for 40% of the cost of a new internal combustion engine car, up from less than 20% two decades ago.
- Semiconductor Chips account for a bulk of this increase.

5. Open-Source Software

Why in News?

- The Github, an open-source software repository service was recently used to create and share an offensively Named App that sexually harassed a women in India.

Highlights:

- The app used pictures of the women stolen from their social media handles and invited “users” to bid for them.
- GitHub has blocked the user, and the Indian Computer Emergency Response System (Cert-In), has been asked to form “a high-level committee.
- The term open source refers to something people can modify and share because its design is publicly accessible.
- Underlying Principles: Open source projects, products, or initiatives embrace and celebrate principles of
 - ✓ Collaborative participation
 - ✓ Rapid prototyping
 - ✓ Transparency
 - ✓ Meritocracy, and
 - ✓ Community-oriented development.
- Open Source Software: Open source software (OSS) is software that is distributed with its source code, making it available for use, modification, and distribution with its original rights. Source code is the part of software that most computer users don’t ever see.
- It’s the code computer programmers manipulate to control how a program or application behaves. OSS typically includes a licence that allows programmers to modify the software to best fit their needs and control how the software can be distributed.
- The idea of making source code freely available originated in 1983 from an ideological movement informally founded by Richard Stallman, a programmer at MIT.

6. IHU (Instituts Hospitalo-Universitaires)

Why in News?

- Amid the spread of the Omicron Variant of coronavirus, the discovery of a new strain named 'IHU (Instituts Hospitalo-Universitaires)' that emerged in France raises fears across the world.

Highlights:

- The variant is a sub-lineage of the B.1.640. It has been classified as B.1.640.2.
- The variant has 46 mutations and 37 deletions in its genetic code, more than Omicron. Many of these affect the Spike Protein.
- Till now, only a dozen cases have been reported in France. No other country has detected any new cases of the new variant. It is certainly not as alarming as the spread of Omicron.
- While the large number of significant mutations in this variant has attracted the interest of researchers, and raised concerns among the public, the B.1.640 is not spreading at a rate that is Unnerving.
- The World Health Organization (WHO) has not yet deemed this IHU variant a variant of interest, a variant of concern, or even a variant under investigation.

7. Traditional vaccines just as effective, say US Scientists

Why in News?

- Vaccines like Biological E's Corbevax and Bharat Biotech's Covaxin that are made by traditional methods are "just as effective" as the latest mRNA technology-based vaccines a/c to US Scientists.

What are Vaccines?

- A vaccine is a biological preparation that provides active acquired Immunity to a Particular Infectious Disease. It typically contains an agent that resembles a disease-causing microorganism and is often made from weakened or killed forms of the microbe, its toxins, or one of its surface proteins.

Types of Vaccines:

- There are several types of vaccines, including:
 - ✓ Inactivated vaccines
 - ✓ Live-attenuated vaccines
 - ✓ Messenger RNA (mRNA) vaccines
 - ✓ Subunit, recombinant, polysaccharide, and conjugate vaccines

- ✓ Viral Vector Vaccines

Inactivated Vaccines:

- Inactivated vaccines use the killed version of the germ that causes a disease.
- Inactivated vaccines usually don't provide immunity (protection) that's as strong as live vaccines. So you may need several doses over time (booster shots) in order to get ongoing immunity against diseases. Inactivated vaccines are used to protect against: Hepatitis A, Flu (shot only), Polio (shot only), Rabies etc.

Live-attenuated Vaccines:

- Live vaccines use a weakened (or attenuated) form of the germ that causes a disease.
- Because these vaccines are so similar to natural infection that they help prevent, they create a strong and long-lasting immune response.
- Just 1 or 2 doses of most live vaccines can give you a lifetime of protection against a germ and the disease it causes.
- They need to be kept cool in refrigerated conditions.
- Live vaccines are used to protect against Measles, mumps, rubella (MMR), Rotavirus, Smallpox, Chickenpox, Yellow fever

Messenger RNA Vaccines:

- Researchers have been studying and working with mRNA vaccines for decades and this Technology was used to make some of the COVID-19 vaccines.
- mRNA vaccines make proteins in order to trigger an immune response.
- mRNA vaccines have several benefits compared to other types of vaccines, including shorter manufacturing times and, because they do not contain a live virus, no risk of causing disease in the person getting vaccinated.

How does mRNA Vaccine Work?

- The mRNA vaccines function differently from traditional vaccines.
- Traditional vaccines stimulate an antibody response by injecting a human with antigens.
- mRNA vaccines inject a fragment of the RNA sequence of a virus directly into the cells, which then stimulate an adaptive immune response mRNA fragment is a specific piece of the virus that carries instructions to build the antigen of the virus.
- An advantage of RNA vaccines is that they Stimulate Cellular Immunity.

8. Sea Dragon 22 exercise

Why in News?

- Recently, the US Sea Dragon 22 exercise began along with the navies of India, Australia, Canada, Japan and South Korea in the Pacific Ocean.

Highlights:

- India, Japan, Australia and the US are also part of the Quadrilateral Security Dialogue (Quad), and also participate in the Malabar exercise.
- Sea Dragon is a US-led multi-national exercise designed to practice and discuss Anti-submarine warfare tactics to operate together in response to traditional and non-traditional maritime security challenges in the Indo-Pacific region.
- It Is an annual exercise.
- The exercise assumes significance in the face of strained relations that some countries have with China and the growing forays of the PLA-Navy into the Indian ocean region.
- The Indian Navy has recently inducted two more Poseidon 8I maritime reconnaissance and anti-submarine warfare aircraft, which would further boost its ability to keep an eye over the Chinese ships and submarines in the region.

9. Action Plan for Introduction of Cheetah in India

Why in News?

- Recently, the Union Minister for Environment, Forests and Climate Change has launched the 'Action Plan for Introduction of Cheetah in India' under which 50 of these big cats will be introduced in the next five years.

Highlights:

- The action plan was launched at the 19th meeting of the National Tiger Conservation Authority (NTCA).
- NTCA is a statutory body under the Ministry of Environment, Forests and Climate Change.
- Last year (2021), the Supreme Court lifted its seven-year-long stay on a proposal to introduce African Cheetahs from Namibia into the Indian habitat.
- Reintroduction' of a species means releasing it in an area where it is capable of surviving.
- Reintroductions of large carnivores have increasingly been recognised as a strategy to conserve threatened species and Restore Ecosystem Functions.
- The cheetah Is the only large carnivore that has been eliminated, mainly by over-hunting in India in historical times.

- The conservation of the cheetah will revive grasslands and their biomes and habitat, much like Project Tiger has done for forests and all the species that have seen their numbers go up.

10. Environmental DNA (e-DNA)

Why in News?

- DNA floating in the air (i.e. e-DNA) can boost biodiversity conservation efforts across the world.

Highlights:

- Researchers from two teams have independently shown that environmental DNA (e-DNA) can potentially identify and monitor terrestrial animals.
- Animals shed DNA through their breath, saliva, fur or faeces into the environment and these samples are called e-DNA.
- Airborne e-DNA sampling is a biomonitoring method that is rising in popularity among biologists and conservationists as it provides abundant information.
- It can help understand the composition of animal communities and detect the spread of non-native species.
- This method will work with the current techniques to monitor endangered species after some fine-tuning.
- Typically, biologists observe animals in person or by picking up DNA from animals' footprints or faeces, which demand extensive fieldwork.
- Spotting animals can be challenging, especially if they inhabit inaccessible habitats.
- It can aid in tracking long-distance migratory birds and other birds' flying patterns. It can also capture DNA from smaller animals including insects.
- Last year (2021), a proof-of-concept study used airborne e-DNA to monitor terrestrial Insects.
- As wildlife ecosystems become rapidly and extremely chaotic owing to the alarming effects of climate change, terrestrial biomonitoring techniques are expected to adapt and progress rapidly for accurate and Timely Monitoring.
- Environmental DNA (e-DNA) is nuclear or mitochondrial DNA that is released from an Organism into the Environment.
- Sources of eDNA include secreted feces, mucous, and gametes; shed skin and hair; and carcasses. eDNA can be detected in cellular or extracellular (dissolved DNA) form.

- In aquatic environments, eDNA is diluted and distributed by currents and other Hydrological Processes, but it only lasts about 7–21 days, depending on environmental Conditions.

11. BrahMos Missile

Why in News?

- BrahMos Supersonic Cruise Missile was successfully test-fired by DRDO from the Indian Navy destroyer INS Vishakhapatnam off the Western Coast.

About the BrahMos Missile:

- A combination of the names of Brahmaputra and Moskva rivers, BrahMos missiles are designed, developed and produced by BrahMos Aerospace, a joint venture company set up by DRDO and Mashinostroyeniya of Russia.
- It is a two-stage missile with a Solid Propellant booster as the first stage and liquid ramjet as the second stage.
- The cruise missiles like BrahMos are a type of systems known as the ‘standoff range weapons’ which are fired from a range sufficient to allow the attacker to evade defensive fire from the adversary.
- BrahMos is a multiplatform it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the “Fire and Forgets” principle it does not require further guidance after launch.
- BrahMos is one of the fastest cruise missile currently operationally deployed with speed of Mach 2.8, which is 3 times more than the speed of sound.
- These weapons are in the arsenal of most major militaries in the world.
- The range of the missile was originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR). Following India’s entry into the club in June 2016, officials said the range would be extended to 450 km and to 600km at a later stage. An extended range missile had been tested earlier.
- INS Visakhapatnam, with a displacement of 7,400 tonnes, is the first of four ingeniously Designed and built Project-15B class stealth Guided missile destroyers and was Commissioned in November 2021.

12. Indigenous Aircraft Carrier (IAC) – INS VIKRANT

Why in News?

- The Indigenous Aircraft Carrier (IAC) 1, which will be called INS Vikrant once it enters service with the Indian Navy, began another set of sea trials.

Highlights:

- An aircraft carrier is “a large ship that carries military aircraft and has a long, flat surface where they take off and land.”
- These floating air bases are equipped with a full-length flight deck capable of carrying, Arming, Deploying and Recovering Aircraft.
- They act as command and control of a naval fleet in times of war and peace.
- A carrier battle Group consists of “an aircraft carrier and its escorts, together making the Group.
- During World War II, the Imperial Japanese Navy was the first to assemble a large number of Carriers into a single task force known as Kido Butai.
- This task force was used during the Pearl Harbour Attack.
- **INS Vikrant (Decommissioned):** Beginning with INS Vikrant which served India from 1961 to 1997.
- India acquired the Vikrant from the United Kingdom in 1961, and the carrier played a stellar role in the 1971 war with Pakistan that led to the birth of Bangladesh.
- In 2014, INS Vikrant, was broken down in Mumbai.
- **INS Viraat (Decommissioned):** INS Vikrant was followed by the Centaur-class carrier HMS (Her Majesty’s Ship) Hermes, which was rechristened in India as INS Viraat and served in the Indian Navy from 1987 to 2016.

13. African Swine Fever

Why in News:

- Recently, Thailand has detected African Swine Fever in a surface swab sample collected at a slaughterhouse.

Highlights:

- It is a highly contagious and fatal animal disease that infects and leads to an acute form of hemorrhagic fever in domestic and wild pigs.
- Other manifestations of the disease include high fever, depression, anorexia, loss of appetite, hemorrhages in the skin, vomiting and diarrhoea among others.

- It was first detected In Africa in the 1920s.
- Historically, outbreaks have been reported in Africa and parts of Europe, South America, and the Caribbean.
- However, more recently (since 2007), the disease has been reported in multiple countries across Africa, Asia and Europe, in both domestic and wild pigs.
- In 2021, cases were also detected in India.
- The mortality Is close to 100% and since the fever has no cure, the only way to stop its spread is by culling the animals.
- ASF is not a threat to human beings since it only spreads from animals to other animals.
- ASF is a disease listed in the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code and thus, reported to the OIE.
- Classical swine Fever is also known as hog cholera, is an important disease of pigs.
- It Is one of the most economically-damaging pandemic viral diseases of pigs in the world.
- It Is caused by a virus of the genus Pestivirus of the family Flaviviridae, which is closely related to the viruses that cause bovine viral diarrhoea in cattle.
- Recently, the ICAR-IVRI developed a Cell Culture CSF Vaccine (live attenuated) using the Lapinized Vaccine Virus from foreign strain.

14. BrahMos Supersonic Cruise Missile

Why in News?

- An extended range sea-to-sea variant of the BrahMos supersonic cruise missile was recently test fired from stealth guided missile destroyer INS Visakhapatnam.

Highlights:

- The BrahMos missile was initially developed with a range capped at 290 km.
- The range of the missile was Originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR).
- However, following India's entry into the MTCR club in June 2016, the range is planned to be extended to 450 km and to 600km at a later stage.
- BrahMos is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia.
- BrahMos is named on the rivers Brahmaputra and Moskva.
- It Is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) missile.

- It is a multiplatform missile i.e. it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the “Fire and Forgets” principle i.e. it does not require further guidance after launch. Brahmos is one of the fastest cruise missiles currently operationally deployed with a speed of Mach 2.8, which is nearly 3 times more than the speed of sound.

15. Xenotransplantation

Why in News?

- Recently, in a medical first, doctors transplanted a pig heart into a patient in a last-ditch effort to save his life in the US.

Highlights:

- It involves the transplantation of nonhuman tissues or organs into human recipients.
- This is the first successful transplant of a pig’s heart into a human being. However, it’s too soon to know if the operation really will work.
- This time, a heart from a pig that had undergone gene-editing has been used to remove a sugar in its cells that’s responsible for that hyper-fast organ rejection.
- Genome editing (also called gene editing) is a group of technologies that give scientists the ability to change an organism’s Deoxy-Ribonucleic Acid (DNA).
- Prior attempts at such transplants — or xenotransplantation have failed. One of the biggest obstacles to transplantation is organ rejection.
- This has re-sparked a debate over the use of pigs for human transplants, which many animal rights groups oppose.
- This development could bring us one step closer to solving the global organ shortage.
- In India, patients need 25,000-30,000 liver transplants annually. But only about 1,500 end up receiving them.
- Pigs are increasingly becoming popular candidates for organ transplantation.
- Pigs offer advantages over primates for organ procurements, because they are easier to raise and achieve adult human size in six months.
- Pig heart valves are routinely transplanted into humans, and some patients with diabetes have received Porcine Pancreas Cells.

16. 6GW of Rooftop Solar (RTS) Power

Why in News?

- Recently, the data available on the website of the Union Ministry of New and Renewable Energy (MNRE), India could install just 6GW of Rooftop Solar (RTS) power by the end of October 2021 under the rooftop solar scheme.

Highlights:

- The major objective of the scheme is to generate solar power through the installation of solar panels on the roof of the houses.
- Also, the Ministry of New and Renewable Energy has announced the implementation of Phase 2 of the grid-connected Rooftop Solar Scheme.
- The aim of the scheme is to achieve the final capacity of 40 GW from Rooftop Solar Projects by 2022.
- The 40GW goal is part of India's ambitious target to achieve 175GW renewable energy (RE) capacity that includes 100GW of solar power by 2022.
- According to a report released in September, 2021, the lockdowns slowed renewable energy installations in the country and the pace of such installations is lagging India's 2022 Target. Although many companies began using solar energy, flip-flopping (sudden real or apparent change of policy) policies remained a major hurdle, especially when it came to power distribution companies (discoms).
- Industry executives point out RTS was becoming attractive for several consumer segments when Discoms and state governments started tightening regulations for the sector.
- India's Goods and Service Tax (GST) Council recently hiked the GST of many components of the solar system from 5% to 12%.
- It will increase RTS's capital cost by 4-5%.

17. 5th Generation Mobile Network

Why in News?

- The US Federal Aviation Administration (FAA) has recently warned that the new 5G technology could interfere with sensitive navigation equipment such as altimeters, which could lead to "Catastrophic Disruptions."
- Airlines across the world, including India, are adjusting their scheduled flights to the US due to the rollout of 5G by telecom companies near American airports.

Highlights:

- The higher the frequency in the spectrum, the faster the service. So in order to get full value from 5G, operators want to operate at higher frequencies.
- Some of the C band (a radio frequency band between 3.7 and 4.2 GHz) spectrum auctioned had been used for satellite radio but the transition to 5G means there will be much more Traffic.
- The new C band 5G service could render a significant number of aircraft unusable, causing chaos for US flights and potentially stranding tens of thousands of Americans overseas.
- The United States auctioned mid-range 5G bandwidth to mobile phone companies in early 2021 in the C band, for about USD 80 billion.
- FAA warned that the functioning of Altimeters, which measure how far above the ground an aeroplane is travelling, operating in the 4.2-4.4 GHz range which sits too close to the frequency of C range, may get hampered.
- In addition to altitude, altimeter readouts are also used to facilitate automated landings and to help detect dangerous currents called wind shear.
- Companies have argued that C band 5G has been deployed in about 40 other countries without aviation interference issues. They have agreed to buffer zones around 50 airports in the United States, similar to those used in France, for six months to reduce interference risks.
- In the short-term, Companies agreed to temporarily defer turning on some wireless towers near key airports to avert a significant disruption to US flights.
- In the Longer-term, the FAA needs to clear and allow the vast majority of the US commercial aeroplane fleet to perform low-visibility landings at many airports where 5G C-band will be deployed. This means certifying altimeters to operate near 5G base stations.

18. Saaṛṛṛṛṛṛ App

Why in News?

- Securities and Exchange Board of India (SEBI) has recently launched Saaṛṛṛṛṛṛ – a mobile app on investor education. ‘R’ represents ‘₹’.

Highlights:

- It aims to create awareness among investors about the basic concepts of the securities market. The app will also explain about KYC process, trading and settlement, Mutual Funds (MF), recent market developments, investor grievances redressal mechanism, etc.

- A recent surge is seen in individual investors entering the market, and more importantly a large proportion of trading being mobile phone based.
- According to NSE (National Stock Exchange) data, the share of Individual investors increased to 45% in 2021 from 39% in 2020.
- The NSE is India's Largest Financial Market.
- Securities are financial instruments issued to raise funds.
- The primary function of the securities markets is to enable the flow of capital from those that have it to those that need it.
- Securities markets provide channels for allocation of savings to investments and thereby decouple these two activities.
- As a result, the savers and investors are not constrained by their individual abilities, but by the economy's abilities to invest and save respectively, which inevitably enhances savings and investment in the economy.
- Securities and Exchange Board of India (SEBI) is a statutory body established on 12th April 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.
- Its basic function is to protect the interests of investors in securities and to promote and regulate the Securities Market.

19. Dark Matter

Why in News?

- Recently, scientists investigating how the shape of dark matter affects the motion of stars in the centre of some galaxies (stellar bars) have found that out-of-plane bending can be explained through dark matter halos in Barred Galaxies.

Highlights:

- Out of plane bending of the bar in barred galaxies is a rare violent bar thickening mechanism known as buckling.
- A dark halo is the inferred halo of invisible material (dark matter) that permeates and surrounds individual galaxies, as well as groups and clusters of galaxies.
- Dark matter, though never detected, is believed to be present in the entire universe.
- It is presumed that primordial black holes, those that were formed in the early age of the universe, are a source of dark matter. It was proposed by Professor Stephen Hawking.
- It is believed that combined with dark energy, it makes up more than 95% of the universe.

- Its gravitational force prevents stars in our Milky Way from Flying Apart.
- However, attempts to detect such dark matter particles using underground experiments, or accelerator experiments including the world's largest accelerator, the Large Hadron Collider (LHC), have failed so far.
- The Big Bang occurred nearly 15 billion years ago and expanded.
- Earlier, astronomers believed that eventually the expansion of the Universe will slow down because of gravity and it will recollapse.
- However, data from the Hubble Telescope suggested that the Universe's expansion is Accelerating.
- The Astronomers Theorize that the faster expansion rate is due to a mysterious, dark force or energy that is pulling Galaxies Apart.
- The term 'dark' is used to denote the unknown.
- The following diagram reveals changes in the rate of expansion since the universe's birth 15 billion years ago.

20. Small Satellite Launch Vehicle (SSLV)

Why in News?

- The Indian Space Research Organisation (ISRO) chairman has recently mentioned the launch of an “SSLV-D1 Micro SAT in April 2022”.

Highlights:

- The SSLV (Small Satellite Launch Vehicle) aims to cater to the market for the launch of small satellites into Earth's low orbits that has emerged in recent years to cater to the needs of developing countries, universities for small satellites, and private corporations.
- It is the smallest vehicle weighing only 110-tonne. It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle.
- It can carry satellites weighing up to 500 kg to a low earth orbit while the tried and tested Polar Satellite Launch Vehicle (PSLV) can launch satellites weighing in the range of 1000 kg.
- SSLV is a three-stage all solid vehicle and has a capability to launch up to 500 kg satellite mass into 500 km Low Earth Orbit (LEO) and 300 kg to Sun Synchronous Orbit (SSO).
- It is perfectly suited for launching multiple microsattellites at a time and supports multiple orbital drop-offs.

- The key features of SSLV are low cost, with low turn-around time, flexibility in accommodating multiple satellites, launch on demand feasibility, minimal launch Infrastructure Requirements, etc.
- The Government has sanctioned a total cost of Rs. 169 Crores for the development project including the development & qualification of the vehicle systems and the flight demonstration through three development flights (SSLV-D1, SSLV-D2 & SSLV-D3).
- ISRO's new chairman Dr Somanath is credited with designing and developing the SSLV during his tenure as director of the Vikram Sarabhai Space Centre in Thiruvananthapuram since 2018. The maiden flight of the SSLV was scheduled to launch in July 2019 but that has since been delayed due to setbacks from Covid-19 and other issues.
- The development and manufacture of the SSLV are expected to create greater synergy between the space sector and private Indian industries – a key aim of the space ministry.
- Indian industry has a consortium for the production of PSLV and should come together to produce the SSLV as well once it is tested. One of the mandates of the newly-created ISRO commercial Arm, New Space India Limited (NSIL) is to mass-produce and manufacture the SSLV and the more powerful PSLV in partnership with the private sector in India through technology transfers. Its aim is to use research and development carried out by ISRO over the years for commercial purposes through Indian industry partners.
- Small satellite launches have so far depended on 'piggy-back' rides with big satellite launches on the Polar Satellite Launch Vehicle (PSLV) — ISRO's work-horse with more than 50 successful launches. As a result, small satellite launches have relied on ISRO finalising launch contracts for larger satellites.

5.1. ART AND CULTURE & MISCELLANEOUS SNIPPETS

1. Maya Civilization

Why in News?

- Recently, study in Maya civilization may have had access to nearly 500 drought Resistant Edible Plants.

Highlights:

- The mystery behind Maya civilization's sudden fall from glory still eludes us. Scientists have long suspected that drought pushed its people towards starvation.

- The Maya people faced starvation because of their dependence on drought-sensitive crops such as corn, beans and squash.
- The Maya are an Indigenous people of Mexico and Central America who have continuously inhabited the lands comprising modern-day Yucatan, Quintana Roo, Campeche, Tabasco, and Chiapas in Mexico and southward through Guatemala, Belize, El Salvador and Honduras.
- The Maya civilization originated in the Yucatan Peninsula. Known for its monumental architecture and an advanced understanding of mathematics and astronomy.
- The rise of the Maya began about 250 CE, and what is known to archaeologists as the Classic Period of Mayan culture lasted until about 900 CE. At its height, Mayan civilization consisted of more than 40 cities, each with a population between 5,000 and 50,000.
- But then, suddenly, between 800 and 950 CE, many of the southern cities were abandoned. This period is called the collapse of the Classic Maya civilisations, puzzling modern-day scientists.
- As early as 1500 BCE the Maya had settled in villages and had developed an agriculture based on the cultivation of corn (maize), beans, and squash; by 600 CE cassava (sweet manioc) was also grown.
- They began to build ceremonial centres, and by 200 CE these had developed into cities containing temples, pyramids, palaces, courts for playing ball, and plazas.
- The ancient Maya quarried immense quantities of building stone (usually limestone), which they cut by using harder stones such as chert. They practiced mainly slash-and-burn agriculture, but they used advanced techniques of irrigation and terracing.
- They also developed a system of hieroglyphic writing and highly sophisticated calendrical and Astronomical Systems.
- The Maya made paper from the inner bark of wild fig trees and wrote their hieroglyphs on books made from this paper. Those books are called codices.
- The Maya also developed an elaborate and beautiful tradition of sculpture and relief carving.
- Architectural works and stone inscriptions and reliefs are the chief sources of knowledge about the early Maya.

2. Centre for Science and Environment (CSE)

Why in News?

- Recently, the analysis by the Centre for Science and Environment (CSE), a Delhi-based non-profit, 61% of the coal-based power plants located near million-plus population cities, which have to meet their emission standards by December 2022, will miss their deadlines.

Highlights:

- The Ministry of Environment, Forest and Climate Change (MoEF&CC) had in 2015 set new emission norms and fixed a deadline to meet it
- Category A: The power plants which have to meet the December 2022 target are those which are located within 10 km radius of the National Capital Region (NCR) or cities having million-plus population. There are 79 coal-based power plants in this category as per a categorisation list of a task force, constituted by the Central Pollution Control Board (CPCB). Category B and C: 68 power plants have been put in Category B (compliance deadline of December 2023) and 449 in Category C (compliance deadline of December 2024). The power plants which are located within 10 km radius of critically polluted areas or non-attainment cities fall under category B while the rest others (75% of total) fall in category C. Maharashtra, Tamil Nadu, Madhya Pradesh, Chhattisgarh and Andhra Pradesh. These defaulting stations are run largely by the respective State Governments.
- At least 17 Indian states have coal-based thermal power stations. A state-wise comparison highlighted the following:
- Except for Assam (AS), none of the other states among these 17 will 100% comply with the stipulated deadlines. This state has a 750-megawatt power station that makes it an insignificant per cent of total coal capacity.

3. Amar Jawan Jyoti and its Relocation

Why in News?

- The iconic Amar Jawan Jyoti (AJJ) at India Gate was extinguished as a part of its merger with the flame at the National War Memorial (NWM). This has sparked a political controversy.

What is the Amar Jawan Jyoti?

- The eternal flame at the AJJ underneath India Gate in central Delhi was an iconic symbol of the nation's tributes to the soldiers who have died for the country in various wars and Conflicts since Independence.

- Established in 1972, it was to mark India's victory over Pakistan in the 1971 War, which resulted in the creation of Bangladesh.
- The then PM Indira Gandhi had inaugurated it on Republic Day 1972, after India defeated Pakistan in December 1971.

Description of the Bust:

- The key elements of the Amar Jawan Jyoti included a black marble plinth, a cenotaph, which acted as a tomb of the Unknown Soldier.
- The plinth had an inverted L1A1 self-loading rifle with a bayonet, on top of which was a soldier's war helmet.

How the Eternal Flame was Kept Burning?

- For 50 years the eternal flame had been burning underneath India Gate, without being extinguished.
- But on Friday, the flame was finally put off, as it was merged with another eternal flame at the National War Memorial.
- Since 1972, when it was inaugurated, it used to be kept alive with the help of cylinders of liquefied petroleum gas, or LPG.
- One cylinder could keep one burner alive for a day and a half.
- In 2006 that was changed. Though a project that cost around Rs 6 lakh the fuel for the flames was changed from LPG to piped natural gas, or PNG.
- It is through this piped gas that the flame marking the tribute to Indian soldiers had been kept alive Eternally.

Why was it Placed at India Gate?

- The India Gate, All India War Memorial, as it was known earlier, was built by the British in 1931. It was erected as a memorial to around 90,000 Indian soldiers of the British Indian Army, who had died in several wars and campaigns till then.
- Names of more than 13,000 dead soldiers are mentioned on the memorial commemorating them.
- As it was a memorial for the Indian soldiers killed in wars, the Amar Jawan Jyoti was established underneath it by the government in 1972.

Reasons for its Relocation:

- The correct perspective is that the flame will not be extinguished, but just moved to be merged with the one at the National War Memorial.

- The flame which paid homage to the soldiers killed in the 1971 War, does not even mention their name, and the India Gate is a “symbol of our colonial past”.
- The names of all Indian martyrs from all the wars, including 1971 and wars before and after it are housed at the National War Memorial.
- Hence it is a true tribute to have the flame paying tribute to martyrs there.
- Further, it can also be seen as part of the government’s redevelopment of the entire Central Vista, of which India Gate, the AJJ and the National War Memorial are parts of.

What else is planned with the extinguish?

- The canopy next to the India Gate will get a statue of the Netaji Subhash Chandra Bose.
- The new statue will be 28 feet high.
- Till the statue is completed, a hologram statue of Bose will be placed under the canopy, which he will unveil on January 23.
- The canopy used to have a statue of King George V, which was removed in 1968.

Why Netaji?

- January 23 this year marks his 125th birth anniversary.
- From this year onwards, Republic Day celebrations will start on January 23, as opposed to the usual practice of starting it on January 24, to mark the birth anniversary of Bose.
- It will end on January 30, the day Mahatma Gandhi was assassinated.
- The Government had earlier announced that Bose’s birth anniversary would be celebrated as Parakram Divas.

What is the National War Memorial and when was it made?

- The National War Memorial, which is around 400 meters from India Gate was Inaugurated in February 2019, in an area of around 40 acres.
- It was built to commemorate all the soldiers who have laid down their lives in the various battles, wars, operations and conflicts of Independent India.
- There are many independent memorials for such soldiers, but no memorial existed commemorating them all at the national level.
- Discussions to build such a memorial had been ongoing since 1961, but it did not come up.

Its Architecture:

- The architecture of the memorial is based on four concentric circles.
- Largest is the Raksha Chakra or the Circle of Protection which is marked by a row of trees, each of which represent soldiers, who protect the country.

- The Tyag Chakra, the Circle of Sacrifice, has circular concentric walls of honour based on the Chakravyuh.
- The walls have independent granite tablets for each of the soldiers who have died for the Country since Independence.
- As of today, there are 26,466 names of such soldiers on these granite tablets etched in Golden Letters.
- A tablet is added every time a soldier is killed in the line of duty.
- The final is the Amar Chakra, the Circle of Immortality, which has an obelisk, and the Eternal Flame.
- Busts of the 21 soldiers who have been conferred with the highest gallantry award of the country, Param Vir Chakra, are also installed at the memorial.

4. Sri Ramanuja

Why in News?

- Work is going apace on the 216-ft tall ‘Statue of Equality’ of the 11th century reformer and Vaishnavite saint, Sri Ramanuja, to be unveiled by PM Modi next month in Hyderabad.

Statue of Equality:

- The ‘Statue of Equality’, as it is called, is being installed to mark the 1,000th birth Anniversary of Sri Ramanuja.
- It was built of panchaloha, a combination of gold, silver, copper, brass and zinc, by the Aerospun Corporation in China and shipped to India.
- It is the second largest in the world in sitting position of the saint.
- The monument will be surrounded by 108 “Divya Desams” of Sri Vaishnavite tradition (model temples) like Tirumala, Srirangam, Kanchi, Ahobhila, Badrinath, Muktinath, Ayodhya, Brindavan, Kumbakonam and others.
- The idols of deities and structures were constructed in the shape at the Existing Temples.

Who was Sri Ramanuja?

- Ramanuja or Ramanujacharya (1017–1137 CE) was a philosopher, Hindu theologian, social Reformer, and one of the most important exponents of Sri Vaishnavism tradition within Hinduism.
- His philosophical foundations for devotionism were influential to the Bhakti movement.

His Works:

- Ramanuja's philosophical foundation was qualified monism and is called Vishishtadvaita in the Hindu tradition.
- His ideas are one of three subschools in Vedanta, the other two are known as Adi Shankara's Advaita (absolute monism) and Madhvacharya's Dvaita (dualism)

Important writings include:

- Vedarthasangraha (literally, "Summary of the Vedas meaning"),
- Sri Bhashya (a review and commentary on the Brahma Sutras),
- Bhagavad Gita Bhashya (a review and commentary on the Bhagavad Gita), and
- The minor works titled Vedantapida, Vedantasara, Gadya Trayam (which is a compilation of three texts called the Saranagati Gadyam, Sriranga Gadyam and the Srivaikunta Gadyam), and Nitya Grantham.

5. Tipu Sultan

Why in News?

- Naming a playground on Tipu Sultan in Mumbai has recently sparked a controversy.

Key Points:

- **Brief Profile:**
 - ✓ Born in November 1750, Tipu Sultan was Haidar Ali's son and a great warrior, also known as the Tiger of Mysore.
 - ✓ He was a well-educated man fluent in Arabic, Persian, Kanarese and Urdu.
 - ✓ Mysore had grown in strength under the leadership of powerful rulers like Haidar Ali (ruled from 1761 to 1782) and his famous son Tipu Sultan (ruled from 1782 to 1799).
 - ✓ Tipu introduced a number of administrative innovations during his rule, including his coinage, a new Mauludi lunisolar calendar, and a new land revenue system which initiated the growth of Mysore silk industry.
 - ✓ Embracing western military methods like artillery and rockets alongside traditional Indian weapons including war elephants, he ensured his forces could overwhelm his Indian rivals and match the British armies sent against him.

Maintenance of Armed Forces:

- He organised his army on the European model with Persian words of command.
- Though he took the help of the French officers to train his soldiers, he never allowed them (French) to develop into a Pressure Group.

- He was well aware of the importance of a Naval Force.
- In 1796, he set up a Board of Admiralty and planned for a fleet of 22 battleships and 20 large frigates.
- He established three dockyards at Mangalore, Wajedabad and Molidabad. However, his plans did not fructify.
- Fought Against Marathas:
- In 1767, Tipu commanded a corps of cavalry against the Marathas in the Carnatic (Karnataka) region of western India, and he fought against the Marathas on several occasions between 1775 and 1779.

Role in Anglo-Mysore Wars:

- The British saw Haidar and Tipu as ambitious, arrogant and dangerous – rulers who had to be controlled and crushed.
- Four wars were fought with Mysore, 1767-69: Treaty of Madras, 1780-84: Treaty of Mangalore, 1790-92: Treaty of Seringapatam and 1799: Subsidiary Alliance.
- Only in the last – the Battle of Seringapatam – did the Company ultimately win a victory. Tipu Sultan was killed defending his capital Seringapatam.
- Mysore was placed under the former ruling dynasty of the Wodeyars and a subsidiary alliance was imposed on the state.

6. INTERNATIONAL RELATIONS

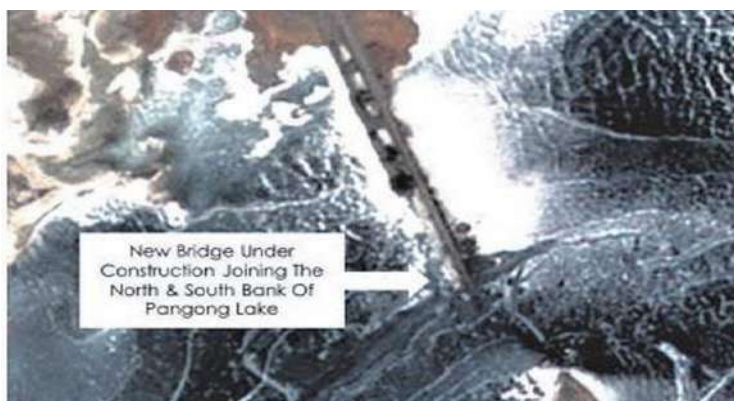
1. China Constructing Bridge on Pangong Lake in Ladakh

Why in News?

- China is constructing a bridge in Eastern Ladakh connecting the North and South Banks of Pangong Tso which would significantly bring down the time for People's Liberation Army (PLA) to move troops and equipment between the two sectors.

About the News:

- Sources said the bridge is being constructed more than 20 km east of Finger 8 on the lake's north bank – India says Finger 8 denotes the LAC.
- The bridge site is just east of Khurnak Fort in Rutog county where the PLA has frontier bases. There is a frontier defence company at Khurnak Fort, and a water squadron further east at Banmozhang.
- Since the military standoff began in May 2020, India and China have not only worked to improve existing infrastructure, but have also built several new roads, bridges, landing strips along the entire frontier. Historically a part of India, Khurnak Fort has been under Chinese control since 1958. From Khurnak Fort, the LAC is considerably west, with India claiming it at Finger 8 and China claiming it at Finger 4.
- The north and south banks of the lake were among the several friction points that surfaced after the start of the standoff. Before India and China pulled back troops from the north and south banks in February 2021, the area had seen massive mobilisation and the two sides even deployed tanks, barely a few hundred metres apart in some locations.



About the Issue:

- India and China have previously reached an agreement on disengagement in the Pangong lake area to cease their forward deployments in a phased, coordinated and verified manner.

- As per the agreement:
 - ✓ The Chinese side will keep its troop presence in the North Bank area to east of Finger 8.
 - ✓ Reciprocally, the Indian troops will be based at their permanent base at Dhan Singh Thapa Post near Finger 3.
 - ✓ A similar action would be taken in the South Bank area by both sides.
 - ✓ Any structures that had been built by both sides since April 2020 will be removed and the landforms restored.
 - ✓ Both sides have agreed on a temporary moratorium on military activities in the North Bank, including patrolling in the Traditional Areas.



Why there is a Dispute here?

- The Line of Actual Control (LAC) – the line that separates Indian and Chinese troops since 1962 – generally runs along the land except for the width of Pangong Tso. Here, it runs through water.
- Both sides have marked their areas announcing which side belongs to which country.
- India controls about 45 km stretch of the Pangong Tso and China the rest.
- The lake is divided into sections called fingers. There are eight of them in contention here. India and China have different understanding of where the LAC passes through.
- India has maintained that the LAC passes through Finger 8, which has been the site of the final military post of China.
- India has been patrolling the area – mostly on foot because of the nature of the terrain – up to Finger 8. But Indian forces have not had active control beyond Finger 4.
- China, on the other hand, says the LAC passes through Finger 2. It has been patrolling up to Finger 4- mostly in light vehicles, and at times up to Finger 2.

Why China wanted to Encroach areas Alongside Pangong Tso?

- Pangong Tso is strategically crucial as it is very close to Chusul Valley, which was one of the battlefronts between India and China during the 1962 war.
- China also does not want India to boost its infrastructure anywhere near the LAC. China fears it threatens its occupation of Aksai Chin and Lhasa-Kashgar highway.
- Any threat to this highway also puts Chinese rather imperialist plans in Pakistan-occupied territories in Ladakh and Jammu and Kashmir, and beyond in Pakistan.

What are its Implications?

- Towards the end of August 2020, India outmanoeuvred China to capture the previously unoccupied heights of the Kailash Range on the south bank of the lake.
- Indian troops positioned themselves on the peaks there, including Magar Hill, Gurung Hill, Rejang La, Rechin La, and this allowed them to dominate the strategic Spangur Gap – it can be used for launching an offensive, as China had done in 1962 – and also gave them a view of the PLA garrison at Moldo.
- Sources said that the new bridge built by China will allow it to mobilise its troops faster in this area, hoping to prevent a repeat of what happened in August 2020.

About Pangong Tso:

- Pangong Tso or Pangong Lake is an **endorheic lake** (also called closed or terminal basins or internal drainage systems or basins) in the Himalayas is situated at an elevation of 4,225 m (13,862 ft).
- It is 134 km (83 mi) long and extends from Ladakh, India to the Tibetan Autonomous Region, China.
- It is formed from Tethys geosyncline. The Karakoram Mountain range ends at the north bank of Pangong Tso. Its southern bank too has high broken mountains sloping towards Spangur Lake in the south.
- Approximately 60% of the length of the lake lies within the Tibetan Autonomous Region.
- The lake is 5 km (3.1 mi) wide at its broadest point. All together it covers 604 km².
- During winter the lake freezes completely, despite being **Saline Water**.
- It is **not a part of the Indus River basin** area and geographically a separate landlocked River Basin. The lake is in the process of being identified under the Ramsar Convention as a wetland of international importance.
- This will be the first trans-boundary wetland in South Asia under the convention.

2. FCRA Nod for MoC Restored

Why in News?

- The Ministry of Home Affairs (MHA) recently restored the FCRA registration of Missionaries of Charity (MoC), the Catholic religious congregation set up by Nobel laureate Mother Teresa.

About the News:

- The Foreign Contribution Regulation Act (FCRA) registration is mandatory to receive foreign donations.
- The move comes just days after the Ministry issued a statement that the FCRA registration of the MoC was not renewed as “some adverse inputs were noticed”.
- The registration was renewed, making MoC eligible to receive and utilise foreign funds in its bank accounts even as the U.K Parliament debated the issue, seeking to know if the British government had raised the issue of blocking of overseas funds of the MoC and other NGOs with India.

Background:

- The registration of thousands of NGOs was up for renewal in 2020-21. The Ministry had declined to renew the FCRA registration of 179 NGOs, while 5,789 associations did not apply for a renewal before the December 31 deadline.
- After the exercise, the number of active FCRA-registered NGOs is down from 22,762 to 16,907.

How FCRA Regulates NGO funding?

- FCRA regulates foreign donations and ensures that such contributions do not adversely affect the internal security of the country.
- The Act, first enacted in 1976 was amended in the year 2010 and then 2020.
- Section 5 of the Foreign Contribution (Regulation) Act, 2010 gives the Union government “Unchecked and Unbridled Powers” to declare an organisation as being one of political nature and deny it access to funds from sources abroad.
- FCRA is implemented by the Ministry of Home Affairs.

Applicability:

- The provisions of the Act apply to the territory of India, to citizens of India who may be outside India and to companies or their branches outside India that are registered or Incorporated in India.

- The entities covered by the Act include an individual, a Hindu undivided family, an Association, or a Registered Company.

Prior Reference Category under the Act:

- It implies that to donate to such an NGO, a foreign donor has to take prior clearance from the Ministry of Home Affairs.

Latest 2020 Amendments and Criticisms Associated:

- The amendments mandated that registered NGOs open a designated account in the main branch of the State Bank of India in the Capital in which the foreign contributions to their various causes would exclusively land.
- The petitioners have argued that this measure would be cumbersome for NGOs operating in rural India and far away from the Capital.

What is a Foreign Contribution Under FCRA?

- “Foreign contribution” under FCRA covers any “donation, delivery or transfer made by any foreign source of any article” as long as it is not given as a gift for personal use, or if its market value in India at the time it was made is “not more than such sum as may be specified from time to time by the Central government”.

Exceptions:

- Any currency, or security can fall under the ambit of the Act though it excludes any money received “by way of fee or towards cost in lieu of goods or services rendered by such person in the ordinary course of his business, trade or commerce whether within India or outside India”.
- Neither are donations made by Non-Resident Indians (NRIs) considered to be “foreign contribution” although a donation from a person of Indian origin who has assumed foreign nationality is treated as as “foreign contribution”.

Who Cannot Receive Foreign Contribution?

- A host of entities are barred from receiving foreign funds, including election candidates, those connected with a registered newspaper, judges, government servants or employees of any entity controlled or owned by the Government and Members of any Legislature. Political parties and their office bearers, too, are Prohibited from receiving Foreign Funds.

3. Kazakh Leader issues shoot to kill order

Why in News?

- Kazakhstan's President recently rejected calls for talks with protesters after days of unprecedented unrest, vowing to destroy “armed bandits” and authorising his forces to shoot to kill Without Warning.

About the News:

- Recently, a sharp and sudden spike in fuel prices triggered a national crisis in Kazakhstan, with the government officially stepping down following days of violent protests across the country. Russian-led forces have also arrived in Kazakhstan at the request of the country's authoritarian president, amid a violent crackdown on anti-government protests.
- Earlier, the Defence Minister of India held bilateral talks with the Defence Minister of the Republic of Kazakhstan in New Delhi.

What are the Reasons for the Unrest?

- Angry Kazakhs first took to the streets after fuel prices doubled in the oil-rich Central Asian nation when the government lifted price caps for Liquefied Petroleum Gas (LPG), commonly used in Vehicles.
- The protests began in the oil city of Zhanaozen, where at least 16 oil workers protesting against poor working conditions were killed by the police in 2011.
- Demonstrations broke out and quickly turned violent in cities and towns across the country, in what is being called the biggest wave of protests in Kazakhstan's history.
- Kazakhstan has been a largely stable autocracy since the collapse of the Soviet Union, protests of this scale haven't been seen since the 1980s.
- Autocracy is a system of government of a country in which one person has Complete Power. Protesters demanded the resignation of the government and lowering of LPG prices.
- They have argued that the jump in prices would cause a steep increase in food prices and deepen the income inequality that has plagued the nation for decades.
 - ✓ Just last year (2021), inflation in the country was closing in on 9% year-on-year, the highest it has been in over five years.

Demand for Democracy:

- Cheaper fuel is only the tip of the iceberg. There has been a growing discontent among ordinary Kazakhs, both over rising income inequality, which has only worsened due to the coronavirus pandemic, and the lack of democracy.

- While the country has been able to attract millions of dollar's worth of foreign investments by appearing politically stable, its authoritarian government has been widely criticised over the years for violating Fundamental Freedoms.



Significance of the Protests:

- **For the World:**
- Sandwiched between Russia and China, Kazakhstan is the world's largest landlocked country, bigger than the whole of Western Europe, though with a population of just 19 million.
 - ✓ It has vast mineral resources, with 3% of global oil reserves and important coal and gas sectors.
 - ✓ It is the top global producer of uranium, which jumped in price by 8% after the unrest.
 - ✓ The country is also the world's second-largest miner of bitcoin.
- A mainly Muslim republic with a large Russian minority, it has largely escaped the civil strife seen in other parts of Central Asia.
- The latest demonstrations matter because the country has been regarded until now as a pillar of political and economic stability in an unstable region, even as that stability has come at the price of a repressive Government that Stifles Dissent.

For Russia:

- The protests are also significant as Kazakhstan has been aligned with Russia, whose president views the country — a body double of sorts for Russia in terms of its economic and political systems — as part of Russia's sphere of influence.
 - ✓ The intervention by the Collective Security Treaty Organisation, a Russian version of North Atlantic Treaty Organisation (NATO), is the first time that its protection clause has been invoked, a move that could potentially have sweeping consequences for geopolitics in the region.

- ✓ This is the third uprising against an authoritarian, Russia-aligned nation, following pro-democracy protests in Ukraine in 2014 and in Belarus in 2020.
- ✓ The chaos threatens to undermine Russia's sway in the region at a time when Russia is trying to assert its economic and geopolitical power in countries like Ukraine and Belarus.
- The countries of the former Soviet Union are also watching the protests closely, and the events in Kazakhstan could help energise opposition forces elsewhere.

For the US:

- Kazakhstan also matters to the US, as it has become a significant country for American energy concerns, with Exxon Mobil and Chevron having invested tens of billions of dollars in western Kazakhstan, the region where the unrest began this month.
- ✓ The United States government has long been less critical of post-Soviet authoritarianism in Kazakhstan than in Russia and Belarus.

What is the Government's Reaction?

- It called the protesters “a band of terrorists,” declared Kazakhstan under attack and asked the Russian-led military alliance to intervene.
- The government has also tried to quell the demonstrations by instituting a state of emergency and blocking social networking sites and chat apps.
- Public protests without permits were already illegal. It also initially conceded to a few of the demonstrators' demands, dismissing the cabinet and announcing the possible dissolution of Parliament, which would result in new elections. But its moves have so far Failed to Tame Discontent.

Global Stand:

- The United Nations(UN), US, UK, and France have called on all sides to refrain from violence.
- India is closely monitoring the situation in Kazakhstan and will facilitate the return of Indians.

Way Forward:

- The US and other major nations of the world need to tell the Kazakh authorities to stop Throttling the Internet and to Avoid Violence.
- In the long-term, the United Nations (UN) must press the Kazakhs to hold legitimately free and Fair Elections or else they will see more and more Protest Activity.

4. Israel- Palestine issue

Why in News?

- India, at the UN Security Council open debate on the Middle East, has reiterated its firm and Unwavering Commitment to the peaceful resolution of the Palestine issue and supported a Negotiated two-state solution.

About the Issue:

- Resolution 2334 was adopted by this Council to reaffirm the international community's firm commitment to preventing the erosion of the two-state solution.

Israel- Palestine Conflict– Historical Background:

- The conflict has been ongoing for more than 100 years between Jews and Arabs over a piece of land between Jordan River and the Mediterranean Sea.
- It was between 1882 to 1948, when the Jews from around the world gathered in Palestine. This movement came to be known as
- Then in 1917, Ottoman Empire fell after World War 1 and the UK got control over Palestine.
- The land was inhabited by a Jewish minority and Arab majority.
- The Balfour Declaration was issued after Britain gained control with the aim of establishing a home for the Jews in Palestine. However during that period the Arabs were in majority in Palestine.
- Jews favored the idea while the Palestinians rejected it. Almost 6 million Jews lost their lives in the Holocaust which also ignited further demand of a separate Jewish state.
- Jews claimed Palestine to be their natural home while the Arabs too did not leave the land and claimed it.
- The international community supported the Jews.
- In 1947, the UN voted for Palestine to be split into separate Jewish and Arab states, with Jerusalem becoming an International City.
- That plan was accepted by Jewish leaders but rejected by the Arab side and never Implemented.



The Creation of Israel and the ‘Catastrophe’:

- It was in the year 1948 that Britain lifted its control over the area and Jews declared the creation of Israel. Although Palestinians objected, Jews did not back out which led to an armed conflict.
- The neighboring Arabs also invaded and were thrashed by the Israeli troops. This made thousands of Palestinians flee their homes. This was called Al-Nakba, or the “Catastrophe”.
- Israel had gained maximum control over the territory after this came to an end.
- Jordan then went on a war with Israel and seized control over a part of the land which was called the West Bank, and Egypt occupied Gaza.
- Jerusalem was divided between Israel in the West and Jordan in the East. However, no formal peace agreement was signed, each side continued to blame each other for the tension and the region saw more wars.
- Israeli forces captured East Jerusalem and the West Bank, various areas of Syrian Golan Heights, Gaza and the Egyptian Sinai Peninsula in the year 1967.

What is the Present scenario?

- Israel still occupies the West Bank, and although it pulled out of Gaza the UN still regards that piece of land as part of Occupied Territory.
- Israel claims the whole of Jerusalem as its capital, while the Palestinians claim East Jerusalem as the capital of a future Palestinian state.
- Tensions escalated in Recent Month over Israel’s actions concerning Al-Asqa mosque in East Jerusalem.

Where is the West Bank?

- It is a landlocked territory near the Mediterranean coast of Western Asia, bordered by Jordan to the east and by the Green Line separating it and Israel on the south, west and north. The West Bank also contains a significant section of the western Dead Sea shore.

What are the Disputed Settlements here? Who lives there?

- The West Bank was captured by Jordan after the 1948 Arab-Israeli War.
- Israel snatched it back during the Six Day War of 1967, and has occupied it ever since. During this war, the country defeated the combined forces of Egypt, Syria, and Jordan.
- It has built some 130 formal settlements in the West Bank, and a similar number of smaller, informal settlements have mushroomed over the last 20-25 years.
- Over 4 lakh Israeli settlers — many of them religious Zionists who claim a Biblical birthright over this land — now live here, along with some 26 lakh Palestinians.

- The territory is still a point of contention due to a large number of Palestinians who live there and hope to see the land become a part of their future state.
- When Israel took control of the land in 1967 it allowed Jewish people to move in, but Palestinians consider the West Bank illegally occupied Palestinian land.

Are these Settlements Illegal?

- The United Nations General Assembly, the UN Security Council, and the International Court of Justice have said that the West Bank settlements are violative of the Fourth Geneva Convention.
- Under the Fourth Geneva Convention (1949), an occupying power “shall not deport or transfer parts of its own civilian population into the territory it occupies”.
- Under the Rome Statute that set up the International Criminal Court in 1998, such transfers constitute war crimes, as does the “extensive destruction and appropriation of property, not justified by military necessity and carried out unlawfully and wantonly”.

5. North Korea Test-Fires most Powerful Missile since 2017

Why in News?

- North Korea recently tested its most powerful missile since 2017, ramping up the firepower for its record-breaking seventh launch this month as Seoul warned nuclear and long-range tests could be next.

About the News:

- North Korea has never test-fired this many missiles in a calendar month before and last week threatened to abandon a nearly five-year-long self-imposed moratorium on testing long-range and nuclear weapons, blaming U.S. “hostile” policy for forcing its hand.
- With peace talks with Washington stalled, North Korea has doubled down on leader Kim Jong-un’s vow to modernise the armed forces, flexing Pyongyang’s military muscles despite biting international sanctions.
- South Korea said that North Korea could soon restart nuclear and intercontinental missile tests. North Korea “has come close to destroying the moratorium declaration”, South Korea’s President Moon Jae-in said in a statement.
- North Korea is continuing its missile program despite several UN Security Council resolutions and the international community’s calls for diplomacy and denuclearization.

Origin of Divide in Korean Peninsula:

- The present-day conflict between the US and North Korea can be traced from the Cold War between the USSR and US.
- After the defeat of Japan in World War II, the Allied forces at the Yalta Conference (1945), agreed to establish a “four-power trusteeship over Korea”.
- The fear of the spread of communism (state ownership over economic resources of a country) and the mutual distrust between the USSR and the US led to the failure of the trusteeship plan.
 - ✓ Before a concrete plan could be formulated, the USSR invaded Korea.
 - ✓ This led to a condition where the north of Korea was under the USSR and the south under the rest of the allies, mainly the US.
 - ✓ The Korean peninsula was divided into two regions by the 38th parallel.
- In 1948 the United Nations proposed free elections across all of Korea.
 - ✓ The USSR rejected this plan and the northern part was declared as Democratic People’s Republic of Korea (North Korea).
 - ✓ The election took place in the American protectorate resulting in the establishment of the Republic of Korea (South Korea).
- Both North Korea and South Korea tried to enhance their reach, territorially and ideologically, which gave birth to the Korean Conflict.



About the Korean War:

- On 25th June 1950, North Korea, backed by the USSR, launched an attack on South Korea and occupied most of the country.
 - ✓ In response, the United Nations force led by the US retaliated.

- In 1951 the US forces led by Douglas MacArthur crossed the 38th parallel and triggered the entry of China in support of North Korea.
 - ✓ To prevent further escalation, peace talks began later in 1951.
- India was actively involved in negotiating peace in the Korean peninsula by engaging all the major stakeholders – US, USSR and China.
 - ✓ In 1952, the Indian resolution on Korea was adopted at the United Nations (UN).
- On 27th July 1953, the Korean Armistice Agreement was signed between the UN Command, the Korean People's Army and the Chinese People's Volunteer Army. It led to an official ceasefire without a Peace treaty. Thus, the war officially never ended.
- This also led to the establishment of the Korean Demilitarised Zone (DMZ) – a strip of land running across the Korean Peninsula to serve as a buffer zone between North Korea and South Korea.
- In December 1991, North and South Korea signed a pact agreeing to refrain from Aggression.

About the US-North Korea Conflict:

- During the Cold War era, (allegedly with the support of Russia and China) North Korea accelerated its nuclear programme and developed nuclear capabilities.
 - ✓ During the same time, the US extended its Nuclear Umbrella (guarantee of support during a nuclear attack) to its allies i.e South Korea and Japan.
- North Korea withdrew from the Non-Proliferation Treaty (NPT) in 2003 and afterwards, under present leader Kim Jong-un, it increased nuclear missile testing.
 - ✓ North Korea is barred from testing ballistic missiles and nuclear weapons under international law.
- In response to this, the US started deploying THAAD (Terminal High Altitude Area Defence) in South Korea in March 2017. The territorial conflict which started between North and South Korea has transformed into a tussle between the US and North Korea.
- Following the failure of diplomatic efforts to improve relations with North Korea, the US has imposed sanctions.

What is India's Stand?

- India has consistently voiced its opposition to North Korean nuclear and missile tests. However, it has maintained a neutral stance Regarding Sanctions.

6. India's Watchwords in a not so Bright 2022

Why in News?

- In this article, the author examines the uncertainties and impermanence India would face in the context of domestic and geopolitical world affairs for the year 2022.

What are the Geopolitical Challenges and Risks for India in 2022?



China as Disruptor:

- The role of China in 2022 is possibly the most disrupting one, given the challenge it poses to the existing international order.
- Militarily, China is openly challenging U.S. supremacy in many areas, including 'state-of-the-art weaponry' such as hyper-sonic technology.
- China has abandoned the 'one country two systems' policy, stripping Hong Kong of its freedom and inviting international opprobrium.
- It is now threatening Taiwan, which could well become one of the flash points of conflict in 2022. Concerns in Indo-Pacific: China might well be tempted to demonstrate its ability in the Indo-Pacific region. This, in the context of US ambitions in the same region, could constitute a serious risk.
- Russia-Ukraine Conflict: The Russia and Ukraine conflict has grave possibilities and could result in a series of cyclical outcomes with considerable damage potential.
- Kazakhstan Crisis: The current unrest in Kazakhstan demonstrates a sharper cleavage between the U.S.-led West and its principal opponents, Russia and China.
- Return of the Taliban: Taliban's return to power in Afghanistan has led to a material shift in the balance of power in an already troubled region on India's periphery.
- Taliban's return to power represents a significant victory for Pakistan.
- Developments in Afghanistan have fuelled the ambitions of quite a few 'anti-state militant Groups' across the region.

- **Concerns with Indonesia:** In Indonesia, a resurgence of radical activities is taking place which provides fertile ground for other radical groups to enlarge their activities across the Asian region.
- **Border issues with China:** The Chinese transgressions across the Line of Actual Control in different sectors in Ladakh could well be expanded in 2022 at many more points on the Sino-Indian border.
- **Challenges in Central Asia:** In Central Asia, India will be challenged on how best to manage its traditional friendship with Russia with the pronounced tilt seen more recently in India-U.S. relations. **Challenges in West Asia:** In West Asia, the challenge for India is how to manage its membership of the Second Quad (India, Israel, the United Arab Emirates and the U.S.) with the conflicting interests of different players in the region.

Way Forward:

- India's foreign policy needs to demonstrate more flexibility to manage the contradictions that exist.
- India needs to develop a strategy on how to counter the publicity given by China to its low-yield nuclear weapons meant for battlefield use even during conventional military operations and against conventional targets.
- India would need to strengthen its military posture to convince India's neighbours that it can stand up to China.

7. Great Resignation

Why in News?

- Recently, large numbers of people are embracing the credo of "antiwork", and walking out of their jobs, especially in the US and European countries.

Highlights:

- A record 4.3 million people resigned in August 2021, up 2,42,000 from July, according to the US Bureau of Labor Statistics (BLS).
- The American psychologist Anthony Klotz has called it the "Great Resignation" — a call to remap priorities in the work-life equation.
- While those opting out of work include, prominently, employees in the retail and hospitality sectors, many were willing to switch jobs or to re-evaluate their options.
- Many countries in Central and Eastern Europe, have recorded a fall in the skilled labour force.

- However, this could be due to stronger social safety nets.
- Living through and surviving pandemic lockdowns nudged many to see “work-free” living as a viable option.
- Grievances about low pay, unrealistic deadlines and bad bosses bubbled up from subconscious depths to feed the impulse.
- This also means that these workers have market values beyond their existing employers.
- They are relying on their experience and contacts to bag better job opportunities or choose start-ups.
- There is a general apprehension that not enough capital allocation has been made in capacity building.

8. World Employment and Social Outlook - Trends (WESO Trends) 2022.

Why in News?

- The International Labour Organisation (ILO) has recently released a report titled World Employment and Social Outlook - Trends (WESO Trends) 2022.
- The Outlook remains fragile because the future path of the pandemic remains uncertain.
- The WESO Trends includes comprehensive labour market projections for 2022 and 2023. It gives assessments of how labour market recovery has unfolded worldwide, reflecting Different National Approaches to pandemic recovery and analysing the effects on different Groups of workers and economic sectors.

Highlights:

- Global unemployment is expected to remain above pre-Covid-19 levels until at least 2023.
- The 2022 level is estimated at 207 million, compared to 186 million in 2019.
- In 2022, it will be almost 2% below their pre-pandemic level – that is equivalent to the loss of 52 million full-time jobs. This deficit is twice as large as the ILO’s forecast in 2021.
- It is estimated that in 2022 around 40 million people will no longer be participating in the global labour force.
- The impact has been particularly serious for developing nations that experienced higher levels of inequality, more divergent working conditions and weaker social protection systems even before the pandemic.
- Many low and middle-income countries have low access to vaccines and limited scope to expand government budgets to address the crisis.

- The report warns of stark differences in the impact that the crisis is having across groups of workers and countries – deepening inequalities within and among nations – while weakening the economic, financial and social fabric of almost every State, regardless of development status.
- The damage is likely to require years to repair, with potential long-term consequences for labour forces, household incomes, and social and possibly political cohesion.
- Some sectors, such as travel and tourism have been particularly hard hit, while other sectors such as those related to information technology have thrived.
- Women have been worse hit by the labour market crisis than men and this is likely to continue. The closing of education and training institutions will have long-term implications for young people, particularly those without internet access.
- There can be no real recovery from this pandemic without a broad-based labour market Recovery.
- Sustainable recovery is possible, but it must be based on the principles of decent work, including health and safety, equity, social protection, and social dialogue.
- The new labour market forecast can be vital for policy planning for a country like India, where most of the work is informal, to prevent further employment losses and reductions in Working Hours.

9. Preventing Genocide

Why in News?

- Incendiary speeches at a religious assembly include calls for the genocide of Muslims in India and can be seen as part of an ongoing pattern of Targeting Minorities.

Background of the Convention against Genocide:

- India's role: India has signed and ratified the Convention on the Prevention and Punishment of the Crime of Genocide of 1948.
- In 1946, Cuba, India and Panama co-sponsored General Assembly Resolution 96(I), which affirmed genocide as a 'crime under international law'.
- As a result of this resolution, a convention on the prohibition of genocide was drafted, which was passed by the General Assembly in 1948 and came into effect in 1951, with more than 150 states party to the convention presently.
- Legal obligation: Legal obligations on states that are party to the convention include:
 - ✓ The obligation not to commit genocide,

- ✓ To prevent genocide, and to punish genocide (Article I),
- ✓ To enact legislation to give effect to the provisions of the convention (Article V);
- ✓ To provide for effective penalties for those found guilty of criminal conduct (Article V);
and
- ✓ The obligation to try those charged with genocide in a competent tribunal (Article VI).

No Legislation Enacted by India:

- Since signing the Genocide Convention and ratifying it, to date India has not enacted any Legislation in accordance with Article VI of the Genocide Convention.
- At the outset, India is in violation of its international obligation to criminalise genocide within its domestic law per Articles V, VI and VII, and to take all means to ensure the Prevention of genocide.
- Indian domestic law shows that there are no comparable provisions for the prosecution of any Mass Crimes, least of all genocide.
- Indian Penal Code provisions relating to rioting, unlawful assembly and ‘promoting Enmity between different groups’ do not embody the basic elements of the crime of Genocide, which is against a collectivity or a group, with the specific intent to cause its Destruction. These also do not pertain to another key aspect of the Genocide Convention – that of prevention, and creating the conditions in which such hate speech and other associated acts are not allowed to flourish.

Significance of the Gambia’s proceedings before the ICJ against Myanmar:

- The Gambia has initiated proceedings before the International Court of Justice (ICJ) against Myanmar on the basis of the Convention.
- The ICJ, relying on a previous case of Belgium v. Senegal, stated, “It follows that any State party to the Genocide Convention, and not only a specially affected State, may invoke the responsibility of another State party with a view to ascertaining the alleged failure to comply with its obligations erga omnes partes, and to bring that failure to an end.”

10. Global Research on Antimicrobial Resistance (GRAM) report

Why in News?

- the Global Research on Antimicrobial Resistance (GRAM) report, 1.27 million people died in 2019 as a direct result of AMR (AntiMicrobial Resistance).

Highlights:

- The death due to AMR Is now a leading cause of death worldwide, higher than HIV/AIDS or malaria.

- Most of the deaths from AMR were caused by lower respiratory infections, such as pneumonia, and bloodstream infections, which can lead to sepsis.
- MRSA (Methicillin-Resistant Staphylococcus Aureus) was particularly deadly, while E. coli, and several other bacteria, were also linked to high levels of drug resistance.
- Antimicrobial resistance is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
- As a result, standard treatments become ineffective, infections persist and may spread to others.
- Microorganisms that develop antimicrobial resistance are sometimes referred to as “superbugs”.
- The World Health Organization (WHO) has identified AMR as one of the top ten threats to global health.
- India, with its combination of large population, rising incomes that facilitate purchase of antibiotics, high burden of infectious diseases and easy over-the-counter access to antibiotics, is an important locus for the generation of resistance genes (such genes help bacteria in surviving on being exposed to antibiotics).
- The multi-drug resistance determinant, New Delhi Metallo-beta-lactamase-1 (NDM-1), emerged from this region to Spread Globally.
- Africa, Europe and other parts of Asia have also been affected by multi-drug resistant typhoid originating from South Asia.
- In India, over 56,000 newborn deaths each year due to sepsis are caused by organisms that are resistant to first line antibiotics.
- A study reported by ICMR (Indian Council of Medical Research) from 10 hospitals showed that when Covid patients acquire drug-resistant infections in hospitals, the mortality is almost 50-60%.

11. Joint India-UK Meet

Why in News?

- Recently, the Union Minister of Science & Technology addressed the joint India-UK meet on “Sustaining Food Production under Environmental Stress” and called for collaboration between the two nations on issues of mutual concern like achieving the goals of Food Security and Zero Hunger.

Highlights:

- India and the UK must invite global collaborations in various dimensions of science like agriculture, medicine, food, pharma, engineering or defence.
- India-UK joint collaboration may include programmes like student exchange, basic research, technology development, product development as well as product/process demonstration and their implementation in joint collaboration.
- Dwelling on the issue of Sustainable Food Production, the South Asian region is facing the shrinking arable land, besides the problem of Global Climate Change that needs to be addressed.
- Arable land in South Asia was reported at 43.18% in 2018 which has been stagnant since the early 1970s and recently declining.
- Growth yields and more intensive use of land will account for all of the growth in crop production and will also compensate for losses in the arable land area.
- NABI (National Agri-Food Biotechnology Institute) could provide an impetus to the nations need for addressing nutritional security even under the climatic changes happening around the world.
- NABI is a premier institute that works at the interface of Agri-Food and Nutrition Biotechnology.
- Underlining that the global pattern of food production and distribution may need to shift significantly as climate change progresses.
- Need of joint funding to develop a coherent and stakeholder-relevant R&D (Research and Development) program that will address this challenge.

12. Global Counter Terrorism Council (GCTC).

Why in News?

- The International Counter Terrorism Conference 2022 was recently organised by the Global Counter Terrorism Council (GCTC).

Highlights:

- GCTC is an International Think-Tank Council with an overarching mission of reducing the vulnerability of people worldwide to terrorism by preventing, combating and prosecuting terrorist acts and countering incitement and recruitment to terrorism.
- Earlier, in the 13th BRICS Summit held in 2021, BRICS counter terrorism action plan was adopted.

- Emergence of new “religiophobia”, especially against Hindus, Buddhists and Sikhs, is a matter of serious concern and needs to be recognised, just like Christian phobia, Islamophobia and anti-semitism, to bring a balance in discussions on such issues.
- An irrational or obsessive fear or anxiety of religion, religious faith, religious people or religious organisations.
- In the past two years, several Member States have been trying to label terrorism into categories such as racially and ethnically motivated violent extremism, violent nationalism, right wing extremism, etc.
- Calling it a “dangerous” tendency, India said this goes against some of the accepted principles agreed to by all UN Member States in the recently adopted Global Counter-Terrorism Strategy.
- Global Counter-Terrorism Strategy states that terrorism in all its forms and manifestations should be condemned and there cannot be any justification for any act of terrorism, whatsoever.
- India’s annual resolution on the issue of counter-terrorism was adopted by consensus in the First Committee of the United Nations General Assembly (UNGA).
- India, a victim of state-sponsored cross-border terrorism, has been at the forefront in highlighting the serious threat to international peace and security emanating from acquisition of weapons of mass destruction by terrorist groups.
- Amid growing fears that terrorists will again nest in Afghanistan and increase attacks in Africa, India’s foreign minister has recently urged for the adoption of the convention.
- In 1996, with the objective of providing a comprehensible legal framework to counter terrorism, India proposed to the UNGA the adoption of the "Comprehensive Convention on International Terrorism” (CCIT).
- CCIT seeks a universal definition of terrorism, prosecution of terrorists under special laws, making cross-border terrorism an extraditable offence worldwide, among others.

13. Environmental Emergency

Why in News?

- Recently, the Peruvian government declared a 90-day “environmental emergency” in damaged coastal territories, after an oil spill that saw 6,000 barrels of crude oil pour into the sea.

Highlights:

- The spill was caused by freak waves, which resulted from the eruption of a volcano in Tonga.
- The oil spill came out of a tanker belonging to the Spanish energy firm Repsol. The incident occurred at the La Pampilla refinery, some 30 kilometers north of the Peruvian capital of Lima in the Ventanilla district of the port city of Callao.
- A freak wave or rogue wave is usually defined as a wave that is two times the significant wave height of the area.
- The significant wave height is the average of the highest one-third of waves that occur over a given period. Rogue waves can disable and sink even the largest ships and oil rigs.
- These so-called “freak waves” are not confined to the Atlantic Ocean or North Sea.
- One of the places rogue waves appear to happen most frequently is off the southeast coast of South Africa. An oil spill refers to any uncontrolled release of crude oil, gasoline, fuels, or other oil by-products into the Environment.
- Oil spills can pollute land, air, or water, though it is mostly used for oceanic oil spills.
- Oil spills have become a major environmental problem, chiefly as a result of intensified petroleum exploration and production on continental shelves and the transport of large amounts of oils in vessels.
- Oil spills that happen in rivers, bays and the ocean most often are caused by accidents involving tankers, barges, pipelines, refineries, drilling rigs and storage facilities.
- Threat to Indigenous people: Oil pollution poses health hazards for the indigenous population who depend on seafood.
- **Harmful to Aquatic Life:** Oil on ocean surfaces is harmful to many forms of aquatic life because it prevents sufficient amounts of sunlight from penetrating the surface, and it also reduces the level of dissolved oxygen. Crude oil ruins the insulating and waterproofing properties of feathers and fur of birds
- Thus, oil-coated birds and Marine Mammals may die from hypothermia (decrease in body temperature to below-normal levels). Threat to Mangroves: Saltwater marshes and Mangroves frequently suffer from oil spills. If beaches and populated shorelines are fouled, tourism and commerce may be severely affected. The power plants and other utilities that depend on drawing or discharging sea water are severely affected by oil spills.
- Major oil spills are frequently followed by the immediate suspension of commercial fishing.

Suggestions

- Bacteria can be used to clean up oil spills in the ocean through bioremediation.
- Specific bacteria can be used to bioremediate specific contaminants, such as hydrocarbons, which are present in oil and gasoline.
- Using bacteria such as *Paraperlucidibaca*, *Cycloclasticus*, *Oleispira*, *Thalassolituus*, *Zhongshania* and some others can help remove several classes of contaminants.
- Floating barriers, called booms, are used to restrict the spread of oil and to allow for its recovery, removal, or dispersal.
- They are devices used for physically separating spilled oil from the water's surface.
- Various sorbents (e.g., straw, volcanic ash, and shavings of polyester-derived plastic) that absorb the oil from the water are used.
- These are chemicals that contain surfactants, or compounds that act to break liquid substances such as oil into small droplets. They accelerate its natural dispersion into the sea.

14. Burkina Faso

Why in News?

- Burkina Faso's army has recently announced that it had ousted President Roch Kabore, suspended the constitution, dissolved the Government and the national assembly, and closed the Country's Borders.

Highlights:

- Army has toppled governments over the past 18 months in Mali and Guinea.
- The Military also took over in Chad last year (2021) after President Idriss Deby died Fighting rebels on the battlefield in the Country's North.
- A former French colony, Burkina Faso has suffered chronic instability since gaining independence in 1960, including several coups.
- The country's name, meaning "land of the honest men", was picked by revolutionary military officer Thomas Sankara who took power in 1983. He was toppled and killed in 1987. The country has been fighting an Islamist insurgency that spilled over from neighbouring Mali. This has Fuelled anger in the military and damaged the once important tourist industry.
- Landlocked Burkina Faso, one of West Africa's poorest countries despite being a gold producer, has experienced numerous coups since independence from France in 1960.

- Islamist militants control swathes of Burkina Faso's territory and have forced residents in some areas to abide by their harsh version of Islamic law, while the military's struggle to quell the insurgency has drained scarce national resources.
- Kabore had faced waves of protests in recent months amid frustration over killings of civilians and soldiers by militants, some of whom have links to Islamic State and al Qaeda.
- The discontent escalated in November 2021, when 53 people, mainly members of the security forces, were killed by suspected jihadists.
- The announcement cited the deterioration of the security situation and what the army described as Kabore's inability to unite the West African nation and effectively respond to challenges, which include an Islamist Insurgency. The statement was made in the name of a previously unheard-of entity, the Patriotic Movement for Safeguard and Restoration, or MPSR, its French-language acronym. MPSR, which includes all sections of the army.
- The MPSR said it would propose a calendar for a return to constitutional order "within a reasonable time frame, after consultations with various sections of the nation."
- The military also announced the closure of Burkina Faso's borders.

15. Why India must engage with Myanmar

Why in News?

- Notwithstanding the unfortunate developments since the Tatmadaw took over, a Recalibration exercise for developing a robust relationship with Naypyidaw is the need of the hour.

Need for Proactive Neighbourhood Policy with Myanmar:

- Security and economic interests: India should implement an unbiased and proactive "Neighbourhood First" strategy that facilitates the Act East policy crucial for India's long-term security and economic interests.
- Myanmar — regardless of who governs its polity — is not only the decisive lynchpin for India's Act East policy but critical for the economic development and security of India's Northeast. China factor: Such a policy should take into account the measures that China has taken to arm the Tatmadaw.

How to Support Myanmar?

- Critical requirements: India should find ways to support Naypyidaw for its critical requirements of systems and platforms like UAVs, surveillance systems and Communication Equipment.

- Economic engagement: There is a need for dynamic economic engagement with Myanmar, to expedite the completion of the earlier agreement on the operationalisation of the Sittwe port, the establishment of an oil refinery and joint vaccine production facilities at a cost of \$6 billion. People-to-people goodwill: India also needs to proactively employ the existing “people-to-people” goodwill and proximate ties between the two armies.
- Engage with military leadership to stop highhandedness: India has the singular advantage of acceptability from both factions in Myanmar and it is, therefore, imperative that it takes the lead in engaging with the ruling military leadership, to stop the highhandedness.
- The visit by India’s Foreign Secretary to Myanmar in the last week of December 2021 was significant. It conveyed the message that India, notwithstanding its commitment to democracy, is amenable to conduct business with the country, regardless of who is in the seat of power. It is of the utmost importance for India to positively engage Naypyidaw and stave off attempts to exploit Myanmar by countries inimical to India’s growth. Any ambiguity or delay in India’s constructive engagement with Myanmar would only serve the interests of anti-India forces.

16.1974 Joint Protocol on Religious Pilgrimages

Why in News?

- The Ministry of External Affairs (MEA) has recently announced that India is “positive” and “willing to engage” in talks with Pakistan on upgrading the 1974 Joint Protocol on Religious Pilgrimages.

Highlights:

- It will allow air travel as well as increase the number of shrines pilgrims from both countries could visit.
- The Government also reopened the Kartarpur Sahib Gurudwara corridor to Pakistan to allow Sikh pilgrims to cross over, more than 20 months after it was shut down due to the Covid-19 pandemic.
- Earlier, India and Pakistan had exchanged a list of their nuclear installations.
- Under the protocol both the countries agreed on the following principles for facilitating **visits to such shrines** :
- Pilgrimage visits from one country to the other shall be allowed without discrimination as to religion or sect. The list of shrines to be visited shall be finalised shortly through correspondence.

- The agreed list may be enlarged from time to time by Mutual Agreement.
- The protocol currently includes five Muslim shrines on the Indian side and 15 shrines on the Pakistani side, a majority of them gurdwaras.
- Upto 20 parties may be allowed to visit from one country to the other every year. This number may be revised from time to time.
- Every effort should continue to be made to ensure that places of religious worship mentioned in the agreed list are properly maintained and their sanctity preserved.
- Such visitors will be given Visitor Category visas.
- The Kartarpur corridor connects the Darbar Sahib Gurdwara in Narowal district of Pakistan with the Dera Baba Nanak shrine in Gurdaspur district in India's Punjab province.
- The corridor was built to commemorate 550th birth anniversary celebrations of Guru Nanak Dev, founder of Sikhism on 12th November 2019.

6.1. INTERNATIONAL RELATIONS SNIPPETS

1. China Issues 'official' names for 15 places in Arunachal Pradesh

Why in News?

- China's Ministry of Civil Affairs has issued standardized names for 15 places in the Indian State of Arunachal Pradesh, to be used henceforth on official Chinese maps.

MEA clarification:

- The Ministry of External Affairs has dismissed the Chinese "invention".
- Arunachal Pradesh has always been, and will always be, an integral part of India, said MEA.

Why is China giving Names to places that are in India?

- China claims some 90,000 sq km of Arunachal Pradesh as its territory.
- It calls the area "Zangnan" in the Chinese language and makes repeated references to "South Tibet".
- Chinese maps show Arunachal Pradesh as part of China, and sometimes parenthetically refer to it as "so-called Arunachal Pradesh".
- China makes periodic efforts to underline this unilateral claim to Indian territory.
- Giving Chinese names to places in Arunachal Pradesh is part of that effort.

Earlier Unilateral Renamings:

- This is the second lot of “**Standardized**” names of places in Arunachal Pradesh that China has Announced.
- Earlier in 2017, it had issued “official” Chinese names for six places spanning the breadth of Arunachal Pradesh

What is China’s Argument for Claiming these Areas?

- The PRC disputes the legal status of the McMahon Line, the official boundary under the ‘Convention Between Great Britain, China, and Tibet’ — of 1914 (Simla Convention).
- China was represented at the Simla Convention by a plenipotentiary of the Republic of China, which had been declared in 1912 after the Qing dynasty was overthrown.
- The present Communist government came to power only in 1949, when the People’s Republic was Proclaimed.
- The Chinese representative did not consent to the Simla Convention, saying Tibet had no independent authority to enter into International Agreements.

What is the McMohan Line?

- The McMohan Line, named after Henry McMahon, the chief British negotiator at Shimla, was drawn from the eastern border of Bhutan to the Isu Razi pass on the China-Myanmar border.
- China claims territory to the south of the McMahon Line, lying in Arunachal Pradesh.
- China also bases its claims on the historical ties that have existed between the monasteries in Tawang and Lhasa.

Intention behind these Renaming’s:

- This renaming is a part of the Chinese strategy to assert its territorial claims over Indian territory.
- As part of this strategy, China routinely issues statements of outrage whenever an Indian dignitary visits Arunachal Pradesh.
- Beijing keeps harping on its “consistent” and “clear” position that the Indian possession of Arunachal Pradesh.
- These claims have been firmly established and recognized by the world, as “illegal”.

Arunachal not all-alone:

- Laying aggressive claims to territories on the basis of alleged historical injustices done to China is a part of Beijing’s foreign policy playbook.

- The claim on Taiwan is one such example, as are the consistent efforts to change the “facts on the ground” in several disputed islands in the South China Sea.
- The aggression is at all times backed in overt and covert ways by the use of China’s Economic and Military Muscle.

2. Aquamation

Why in News?

- The Nobel Peace Prize winner Anglican archbishop and anti-apartheid campaigner Desmond Tutu died. He was very passionate about protecting the environment and taking necessary actions.

Highlights:

- In concurrence of his passion to save the environment, his body underwent aquamation, a Green Alternative to traditional cremation methods.
- The process of aquamation uses energy which is five times less than fire. It also reduces by about 35% the amount of greenhouse gases that are emitted during Cremation.
- It is a process in which the body of the deceased is immersed for a few hours in a mixture of water and a strong alkali in a pressurized metal cylinder and heated to around 150 degree centigrade.
- The combination of gentle water flow, temperature and alkalinity accentuate the breakdown of the organic materials.
- The process leaves behind bone fragments and a neutral liquid called effluent.
- The effluent is sterile, and contains salts, sugars, amino acids and peptides.
- There is no tissue and no DNA left after the Process Completes.
- **Background:** The process was developed and patented in 1888 by Amos Herbert Hanson, a farmer who was trying to develop an ingenious way to make fertilizer from animal Carcasses.
- The First Commercial System was installed at Albany Medical College in 1993.
- Thereafter, the process continued to be in use by hospitals and universities with donated body programmes.
- This process is referred to as alkaline hydrolysis or as Cremation Association of North America (CANA) (an international non-profit organisation) calls it flameless cremation.
- The process Is also known as water cremation, green cremation or chemical cremation.

3. China's bridge over Pangong TSO

Why in News?

- China is building a bridge across the Pangong Tso area connecting the North and South Banks which will significantly reduce the time for moving troops and equipment between the two sides.



Pangong Tso:

- Pangong Tso or Pangong Lake is an endorheic lake in the Himalayas situated at a Height of about 4,350 m.
- It is 134 km long and extends from India to the Tibetan Autonomous Region, China.
- Approximately 60% of the length of the lake lies within the Tibetan Autonomous Region.
- The lake is 5 km wide at its broadest point. All together it covers 604 sq.km.
- During winter the lake freezes completely, despite being saline water.
- It is not a part of the Indus river basin area and is geographically a separate landlocked river basin. Earlier, Pangong Tso had an outlet to Shyok River, a tributary of Indus River, but it was closed off due to natural damming.

Tactical Significance of the Lake:

- It lies in the path of the Chushul approach, one of the main approaches that China can use for an offensive into Indian Territory.
- During the 1962 war, this was where China launched its main offensive — the Indian Army fought heroically at Rezang La under Maj. Shaitan Singh.
- Not far away, to the north of the lake, is the Army's Dhan Singh Thapa post, named after Major Dhan Singh Thapa who was awarded the country's highest gallantry award, the Param Vir Chakra.

- Major Thapa and his platoon were manning the Sirijap-1 outpost which was essential for the defense of the Chushul airfield.

Connectivity in the Region:

- Over the years, the Chinese have built motorable roads along their banks of the Pangong Tso. This points to the importance accorded by the Chinese to the area.
- Even during peacetime, the difference in perception over where the LAC lies on the northern bank of the lake makes this contested terrain.
- In 1999, when the Army unit from the area was moved to Kargil for Operation Vijay, China took the opportunity to build 5 km of a road inside the Indian Territory along the lake's bank.
- From one of these roads, Chinese positions physically overlook Indian positions on the Northern Tip of the Pangong Tso Lake.

What is the Importance of the Bridge over Pangong Tso?

- The bridge over Pangong Tso is located around 25 kms ahead of the LAC in Chinese territory and will significantly reduce the time for movement of Chinese army.
- The Indian Army gained tactical advantage over the PLA on the south bank in end August 2020 by occupying several peaks lying vacant since 1962 gaining a dominating view.
- This has prompted China to build deep alternate roads behind the friction points away from the line of sight.

How is India Responding to developments on the ground?

- The bridge is well within Chinese territory.
- The implications of this new bridge will have to be factored in the Indian Army's Operational Planning for the future.
- On its part, over the last few years India has been focusing on infrastructure development in forward areas and improving connectivity to the forward areas.
- Large-scale construction of roads, bridges and tunnels is underway all along the LAC.

4. United Nation Security Council (UNSC)

Why in News?

- The United Nation Security Council (UNSC) had recently got five new Non-Permanent members (Albania, Brazil, Gabon, Ghana and the United Arab Emirates).

Highlights:

- Estonia, Niger, St Vincent and the Grenadines, Tunisia and Vietnam finished their terms recently.
- Albania is joining for the first time while Brazil is taking an 11th turn. Gabon and Ghana each have been on the council three times before and the UAE once.
- More than 50 of the UN's 193 member countries have never been elected to the council since its formation.
- The Security Council was established by the UN Charter in 1945. It is one of the six principal organs of the United Nations.
- The other 5 organs of the United Nations are—the General Assembly (UNGA), the Trusteeship Council, the Economic and Social Council, the International Court of Justice, and the Secretariat.
- Its primary responsibility is to work to maintain international peace and security. The council is headquartered at New York.
- The council has 15 members: the five permanent members and ten non-permanent members elected for two-year terms.
- The five permanent members are the United States, the Russian Federation, France, China and the United Kingdom.
- India, for the eighth time, has entered the UNSC as a non-permanent member last year (2021) and will stay on the council for two years i.e 2021-22.
- Each year, the General Assembly elects five non-permanent members (out of ten in total) for a two-year term. The ten non-permanent seats are distributed on a regional basis.
- The council's presidency is a capacity that rotates every month among its 15 members.

5. CSTO troops deployed in Kazakhstan

Why in News?

- A Moscow-led Military Alliance called Collective Security Treaty Organization (CSTO) dispatched troops to help quell mounting unrest in Kazakhstan.

Ongoing Situation in Kazakhstan:

- Long seen as one of the most stable of the ex-Soviet republics of Central Asia, energy-rich Kazakhstan is facing its biggest crisis.
- There are ongoing protests over rising fuel prices escalated into widespread unrest.

- The nationwide protests are also signifying a wider, region-wide longing for political change. Under increasing pressure, Kazakh President appealed to the Russia for CSTO army to be deployed in Kazakhstan.

Concerns over CSTO Troop's Deployment:

- It is argued that domestic turmoil could be utilized by Russian nationalists for Asserting their claims in Northern Kazakhstan.

What is CSTO?

- The CSTO is a Russia-led military alliance of seven former Soviet states that was created in 2002. Current CSTO members are Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan.
- Afghanistan and Serbia hold observer status in the CSTO.
- Its purpose is to ensure the collective defence of any member that faces external Aggression.

Outlined Functions of CSTO:

- Version of NATO: It has been described by political scientists as the Eurasian counterpart of NATO, which has 29 member states, while the CSTO has just six.
- Arms trade and mutual defense: CSTO supports arms sales and manufacturing as well as military training and exercises, making the CSTO the most important multilateral defence Organization in the former Soviet Union.
- Non- proliferation of weapons: CSTO also coordinates efforts in fighting the illegal circulation of weapons among member states and has developed law enforcement training for its members in pursuit of these aims.

What does CSTO Membership Provide?

- Barring relations with NATO: While CSTO membership means that member states are barred from joining other military alliances, limiting, for example, their relationship with NATO. Benefits in arms import from Russia: Its members receive discounts, subsidies, and other Incentives to buy Russian arms, facilitating military cooperation.
- Assurance against military conquest: In the CSTO, aggression against one signatory is perceived as aggression against all. It however remains unclear whether this feature works in practice.

6. AIIB

Why in News?

- Former Reserve Bank of India (RBI) governor Urjit Patel has been appointed vice-President of the Beijing-based Asian Infrastructure Investment Bank (AIIB).

About:

- Mr. Patel will serve a three-year term as one of the multilateral development bank's five vice-presidents.
- Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank headquartered in Beijing with a mission to improve social and economic outcomes in Asia and beyond.
- The Parties (57 founding members) to agreement comprise the Membership of the Bank. There are more than 100 members now.
- The bank started operation after the agreement entered into force on 25 December 2015, after ratifications were received from 10 member states holding a total number of 50% of the initial subscriptions of the Authorized Capital Stock.
- **Aim:** By investing in sustainable infrastructure and other productive sectors today, it aims to connect people, services and markets that over time will impact the lives of billions and build a better future.
- **Voting Rights:** China is the largest shareholder with 26.61 % voting shares in the bank followed by India (7.6%), Russia (6.01%) and Germany (4.2 %).
- The regional members hold 75% of the total voting power in the Bank.
- **Various organs of AIIB:**
 - ✓ **Board of Governors:** The Board of Governors consists of one Governor and one Alternate Governor appointed by each member country. Governors and Alternate Governors serve at the pleasure of the Appointing Member.
 - ✓ **Board of Directors:** Non-resident Board of Directors is responsible for the direction of the Bank's general operations, exercising all powers delegated to it by the Board of Governors
 - ✓ **International Advisory Panel:** The Bank has established an International Advisory Panel (IAP) to support the President and Senior Management on the Bank's strategies and Policies as well as on General Operational Issues.

7. Red Sandalwood

Why in News?

- The International Union for Conservation of Nature's (IUCN) recently categorised the Red Sanders (or Red Sandalwood) again into the 'endangered' category in its Red List.

Highlights:

- The species, *Pterocarpus santalinus*, is an Indian endemic tree species, with a restricted geographical range in the Eastern Ghats.
- It was classified as 'near threatened' in 2018.
- The species is endemic to a distinct tract of forests in Andhra Pradesh.
- Red Sanders usually grow in the rocky, degraded and fallow lands with Red Soil and hot and dry climate.
- Illicit felling for Smuggling, Forest fires, cattle grazing and other anthropogenic threats.
- Red Sanders, known for their rich hue and therapeutic properties, are high in demand across Asia, particularly in China and Japan, for use in cosmetics and medicinal products as well as for making Furniture, Woodcraft and Musical Instruments.

