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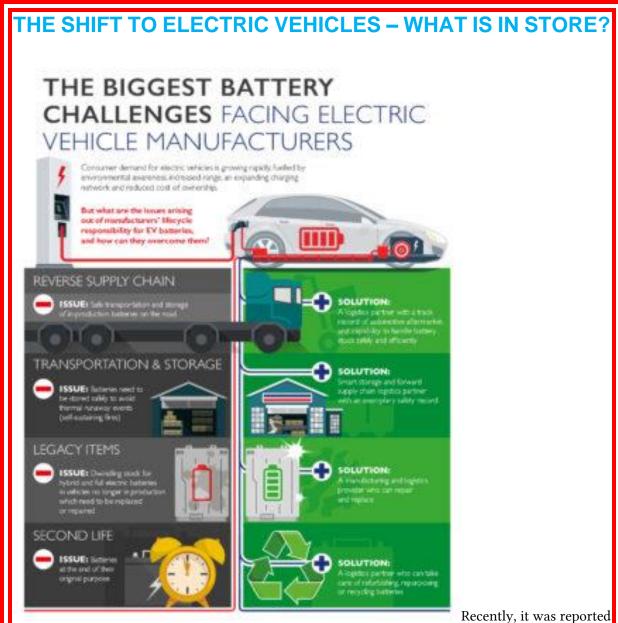
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that 650 of the 8,033 Nexons sold in June 2021 were Electric Vehicles (EVs), that is, had electricitydriven engines.





 It has been ascribed to the fact that thanks to a spate of central and state government subsidies, the e-variant now costs only Rs 2 lakh more than the diesel and Rs 3 lakh more than the petrol variant.

Significance of Switching to Electric Vehicles

- **Electric vehicles are saving the climate:** Air pollutants from gasoline- and diesel-powered vehicles cause asthma, bronchitis, cancer, and premature death.
 - The long-term health impacts of localized air pollution last a lifetime, with the effects borne out in asthma attacks, lung damage, and heart conditions.
- **EVs are covering entire gamut of vehicles:** The Electric vehicles fall into three main categories:
 - Battery electric vehicles are powered by electricity stored in a battery pack.
 - Plug-in hybrids combine a gasoline or diesel engine with an electric motor and large rechargeable battery.
 - Fuel cell vehicles split electrons from hydrogen molecules to produce electricity to run the motor.
- EVs have a smaller carbon footprint than gasoline-powered cars: The electricity that charges and fuels battery electric and plug-in hybrid vehicles comes from power grids, which rely on a range of sources from fossil fuels to clean renewable energy.
 - The electricity across is cleaner and cheaper as a fuel for vehicles because electric vehicles are more efficient in converting energy to power cars and trucks.





- Cheaper to maintain: A Battery Electric Vehicle (BEV) has fewer moving parts than a conventional petrol/diesel car and servicing is relatively easy, less frequent and overall cheaper than a petrol/diesel vehicle.
 - The Plug-in Hybrid Electric Vehicles (PHEVs) also have a petrol or diesel engine that needs servicing, so a PHEV will cost more to maintain than a BEV.
- **Better for our energy security:** The EVs are easy to power from local and renewable energy sources, reducing our dependence on foreign oil.
- **Better for the network:** If EV charging is managed effectively, mainly outside peak electricity demand periods, it will help us to create a flatter electricity network demand profile over a typical 24-hour period.
 - It will help us to:
 - better utilize the electricity network
 - help EV owners avoid higher-cost charging periods
 - help the entire electricity system work more efficiently
 - help support the integration of more small and large-scale renewable energy systems into the electricity grid.

Challenges in Switching to Electric Vehicles

- **Lack of charging infrastructure:** India requires a widespread charging infrastructure to meet the growing adoption of EVs.
 - In addition to more charging stations, the lack of space is also a challenge since people need a place to charge their EVs.





- Range anxiety: Potential EV customers are apprehensive when it comes to the range that an EV offers.
 - They want to ensure that the vehicle would get them to their destination before the battery runs out.
- Financing challenges: EV customers currently face various financing challenges such
 as limited financing options, high interest, high insurance cost, and limited loan
 opportunities.
- Vehicle costs: Electric cars generally have higher sticker prices than their gasolinefueled counterparts, mostly because of expensive materials and processes used in battery production.
- Zero-carbon fantasy: Sourcing the minerals used for batteries, dismantling batteries
 which have deteriorated, and building and delivering vehicles to customers worldwide
 all involve substantial CO2 emissions.

Switching to Electric Vehicles can be problematic, because

- Hefty subsidies being offered by the government: The government is subsidizing a small affluent section of the car-owning population.
 - A complete shift to EVs will therefore transfer Rs 2,770 crore from taxpayers to this fraction every year till the government terminates these incentives.
- Number of security issues: The electric and hybrid vehicles have a number of security
 issues that are not related to conventional vehicles, and include electric shock, explosion,
 flood of the electrolyte and fire.
- Uncertainty associated with the state of the battery after mechanical damage: The connectors may be defective and to lose communication with one or all parts of the battery with unknown amount of energy remaining in the system.





- The issues related to the malfunction of the battery after damage will be evidence of leakage, leaking electrolyte (carbon solvents are flammable), thermal hazards (observed battery temperatures exceeding 1200°C after malfunction) and hazard particles.
- High global warming emission during manufacturing: The electric vehicles will
 produce more global warming emissions than the average gasoline vehicle, because
 electric cars' large lithium-ion batteries require a lot of materials and energy to build.
- Insurance implications and claims complexity: Fire and explosion risks associated
 with high voltage batteries could give rise to claims for commercial property insurers, in
 particular if multiple cars are charged in underground car parks.

Alternative Measures for Switching to Electric Vehicles

- **Ethanol and methanol as transport fuel:** Their superior quality and greater safety has made them the preferred fuels in major motor races since the 1960s.
 - They can be produced from any biomass waste from crop residues to municipal solid waste, both of which are available in abundance.
- Production of refuse-derived fuel: The first commercial plant to convert 175,000 tons
 of refuse-derived fuel into 45 million litres of aviation turbine fuel is being commissioned
 outside Reno, Nevada.
- Gasification: It holds even greater promise because simple, air-blown gasifiers are
 already in use in food processing that can convert rice and wheat straw into a lean fuel
 gas that can generate electricity and provide guaranteed 24-hour power to cold storage
 in every village.
 - A by-product, biochar, is no less valuable because it can replace imported coking coal in blast furnaces or be used as a feedstock for producing transport fuels even more easily than municipal solid waste.





Road ahead

- **Standardized location of switches:** The manufacturers of electrical vehicles install switches that will stop the energy from the battery case in accident.
 - The location of these switches must be standardized for security.
- It is expected in the next 20 years the number of small light electric vehicles (SEVs)
 to significantly increase and become future solution for urban mobility because of
 their dimensions.
- The protection of vulnerable road users, compatibility with heavier vehicles and new active safety systems must be taken into account to ensure adequate security of EVs in the future regulations.
- The Government's vision to **touch a 25% registration mark by 2024 is a quite practical approach** and will help the city in curbing other concerning factors including generating employment opportunities, pollution levels, etc.
- The states need to start planning for the proliferation of electric vehicle chargers
 in both public spaces as well as privately owned overnight chargers.

1.1 HOW INDIA FARES AMONG ASIAN PEERS IN KEY ECONOMIC INDICATORS

Recently, Indians have become more and more worried about the **inflation rate as the retail inflation**, which is measured by using the Consumer Price Index was above the highest level of inflation that RBI targets.

Highlights





- **Rising Oil Prices:** The rising prices of imported crude oil the taxation of refined fuel within the country are the two main reasons for rising oil prices.
 - India depends on oil imports to meet more than 80% of its domestic requirement.
 - The **prices of the Indian basket of crude oil have gone up** from less than \$20 a barrel in April 2020 to around \$65 a barrel as of March 2021.
 - O It shows that every 10% increase in oil prices adversely affects India i.e. economic growth falls by 20 basis points (that is, 0.20 percentage points) and the inflation rate goes up by 40 basis points.
- Worries of Unemployment: A low labour force participation rate undermines a country's
 overall productivity and wellbeing because fewer people are making themselves available for
 economic activity.
 - The participation rate was quite low in India even before Covid because only about 43% of the people in the working-age group were looking for work while in China and Indonesia this proportion was 76% and 69%, respectively.
 - India's unemployment rate is so much higher than other Asian countries and
 India's high unemployment rate is despite a low labour force participation rate.
- The data shows that the total number of people employed in the Indian economy today is over 5% less than the number of people employed before the pandemic.

1.2 National Bank for Agriculture and Rural Development (NABARD) is in the news?

Recently, the Union Agriculture Minister has addressed a webinar on 40th foundation day of National Bank for Agriculture and Rural Development (NABARD).

About NABARD

It came into existence on 12 July 1982 by transferring the agricultural credit functions
of RBI and refinance functions of the then Agricultural Refinance and Development
Corporation (ARDC).





- It was set up with an initial capital of Rs.100 crore but now its paid up capital stood at Rs.14,080 crore as on 31 March 2020.
- It is a financial institution that was set up by the Indian government to promote sustainable
 agriculture and rural development in the country.
- It is under the jurisdiction of **Ministry of Finance**.

Progress of NABARD

- It played an important role in record **purchase by disbursing about Rs. 50 thousand crore rupees** to the state marketing associations.
- Under the Pradhan Mantri Kisan Samman Nidhi Scheme, an amount of Rs 1.35 lakh crore
 has been transferred directly to bank accounts of more than 11 crore such farmers.
- It has made available **crop loans to farmers at concessional rates** through cooperative and regional rural banks and in 7 years this amount reached to Rs.6.5 lakh crore.
- It has set a target to develop 35 thousand primary agricultural cooperative societies (PACS) as 'one-stop shops'.
- It has given **Rs 1.81 lakh crore to the states** under the Rural Infrastructure Development Fund of which one-third is used for irrigation.

Objectives of NABARD

- It is aimed at building an empowered and financially inclusive rural India through specific goal oriented departments.
- It can be categorized broadly into three heads i.e. Financial, Developmental and Supervision.
- It aims at providing refinance support to building rural infrastructure and preparing district level credit plans to guide and motivate the banking industry to achieve targets.
- It supervises Cooperative Banks and Regional Rural Banks (RRBs) to helping them develop sound banking practices and onboarding them to the CBS platform.
- The functions of NABARD include the propagation of technological innovations, financial and non-financial solutions, and institutional development.
- It provides direct finance and refinances services through the various short term and long term loan and financial institutions.
- It provides fundings for the Credit Linked Capital Subsidy Scheme or the CLCSS.





Functions of NABARD

- Developing cottage industry: NABARD extended financial assistance to restore the standard of cottage industries.
- Uplifting rural economy: NABARD bank has provided financial assistance to multiple sectors linked to agriculture and farming, such as the farm equipment manufacturer, fertilizer producers, pesticide producers and so on.
- Setting up credit agencies: NABARD has engaged in building new credit agencies or institutions to create improved credit delivery systems across the rural areas.
- Distributing credit: It provides direct financial solutions to plan and execute development activities.
- Affiliating development agencies: In addition to coordinating the financial and development activities, NABARD affiliates the development organizations to the Central Government, State Governments and RBI.

1.3 CABINET NOD FOR SUBSIDY SCHEME TO BOOST MERCHANT SHIPS

Recently, the Union Cabinet has approved the scheme for **promotion of flagging of merchant ships** in India.

Genesis

- A significant national EXIM trade that is steadily growing on an annual basis, a policy of 100% FDI in shipping since 1997 and Indian shipping industry and India's national fleet is proportionately small when compared with its global counterparts.
- The Indian fleet comprises of a **meagre 1.2% of the world fleet** in terms of capacity.
- The share of Indian ships in the carriage of **India's EXIM trade has drastically declined** from 40.7% in 1987-88 to about 7.8% in 2018-19.
 - o It has led to an **increase in foreign exchange outgo** on account of freight bill payments to foreign shipping companies.
- The operating costs of Indian ships are thus much higher as compared to those of foreign ships.





• The **Indian ships are less competitive while compared to their foreign peers** and the Right of First Refusal (ROFR) policy has not been able to fuel growth of Indian tonnage.

Promotion of Flagging of Merchant Ships

- It provides subsidy to **Indian Shipping companies in global tenders** floated by Ministries and CPSEs for import of government cargo in the following manner:
 - For a ship which is flagged in India after 1st February, 2021 and is less than 10 years at the time of flagging in India:
- The subsidy support would be extended @15% of the quote offered by the L1 foreign shipping company, or
- The actual difference between the quote offered by the Indian flag vessel exercising
 ROFR and the quote offered by the L1 foreign shipping company, whichever is less
 - For a ship which is flagged in India after 1st February, 2021 and which
 is between 10 to 20 years old at the time of flagging in India:
- The subsidy support would be extended @10% of the quote offered by the L1 foreign shipping company, or
- The actual difference between the quote offered by the Indian flag vessel exercising
 ROFR and the quote offered by the L1 foreign shipping company, whichever is less
 - The rate at which the above subsidy support is extended would be **reduced by 1% every year**, till it falls to 10% and 5%, respectively, for the two categories of ships mentioned above.
 - For existing Indian flagged ship which is already flagged and less than 10 years
 old on 1st February 2021:
- The subsidy support would be extended @10% of the quote offered by the L1 foreign shipping company; or
- The actual difference between the **quote offered by the Indian flag vessel exercising**ROFR and the **quote offered by the L1 foreign shipping company**, whichever is less
 - For existing Indian flagged ship which already flagged and between 10 to 20 years
 old on 1st February 2021:





- The subsidy support would be extended @5% of the quote offered by the L1 foreign shipping company; or
- The actual difference between the quote offered by the Indian flag vessel exercising
 ROFR and the quote offered by the L1 foreign shipping company, whichever is less
- The provisions of the **subsidy support would not be available** in case where an Indian flagged vessel is the L1 bidder.
- The budgetary support would be provided directly to the Ministry/Department concerned.
- The subsidy support would be extended only to those ships which have bagged the award after the implementation of the scheme.
- The ships **older than 20 years would not eligible** for any subsidy under the scheme.
- The scheme would be **reviewed after 5 years.**

Impact of Scheme for Promotion of Flagging of Merchant Ships

- The increase in Indian fleet will **provide direct employment to Indian seafarers** since Indian ships are required to employ only Indian seafarers.
- The cadets wish to become seafarers are required to obtain on-board training on ships and the Indian ships will therefore provide training slots for young Indian cadet boys and girls.
- It will **enhance the share of Indian seafarers in global shipping**, and thus Indian supply of Seafarers to the world will increase manifold.
- The increase in Indian fleet will also generate indirect employment in development of ancillary industries such as shipbuilding, ship repair, recruitment, banking, etc. and contribute to the Indian GDP.

1.4 RETAIL INVESTORS TO BE ABLE TO BUY G-SECS DIRECTLY: RBI

Recently, the Reserve Bank of India unveiled a scheme allowing **retail investors to directly** participate in the government securities market.





Highlights

- The investors can open and maintain a 'Retail Direct Gilt Account' (RDG Account) with the RBI through a portal.
- The scheme will provide access to primary issuance of G-Secs and the secondary market as well.
- The greater participation will **support the government's expanding borrowings plan**, estimated at around Rs 12 lakh crore annually.

Government Securities (G-Secs)?

- It is a tradeable instrument issued by the Central Government or the State Governments.
- The government securities market is dominated by institutional investors like mutual funds, banks, insurance companies.
- The government securities are of two types:
 - Short term popularly called treasury bills, with original maturities of less than one
 year;
 - Long term generally called Government bonds or dated securities with an original maturity of one year or more.
- In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).
- G-Secs are called risk-free gilt-edged instruments because practically they carry no risk
 of default.
- G-Secs offer the maximum safety as they carry the Sovereign's commitment for payment of interest and repayment of principal.
- G-Secs can be **sold easily in the secondary market** to meet cash requirements.

Significance of G-Secs for Retail Investors





- The Central Bank has proposed to provide retail investors with online access to the
 government securities market (both primary and secondary) directly through the Reserve
 Bank (Retail Direct).
 - Primary markets are the financial markets where a security is issued for the first time.
 - Secondary markets are the ones where buying and selling of already issued securities takes place.
- The move will broaden the investor base and provide retail investors with enhanced access to participate in the government securities market.
- It is a major structural reform placing India among select few countries which have similar facilities.
- The directly buying of G-secs by retail investors alongwith HTM [hold to maturity] relaxation, will facilitate **smooth completion of the government borrowing programme** in 2021-22.
- It is a **bold step towards the financialisation** of a vast pool of domestic savings and could be a game-changer.
- It allows retail investors to **directly invest in the safest fixed income avenue** in the country and gives an alternative safer than bank fixed deposits as G-secs come with a sovereign guarantee.

Risks associated with direct investment in G-Secs

- The experts argue that although these are safe-asset class, it is better to invest through
 mutual fund schemes that invest in G-Secs because G-Secs are highly volatile.
- The **G-Sec attracts tax on both interest income and capital gains** if the papers are traded in the market before maturity.
- The **interest income attracts tax** at the marginal tax rate, and **capital gains at 10**% but the G-Secs do not attract capital gains tax if the papers are held till maturity.





- G-Sec yields move on account of various factors, and investors will need to keep an eye
 on both domestic and global developments.
- The investors **suffer capital losses in a rising interest rate regime**, and make capital gains in a falling rate environment

1.5 NABARD SANCTIONED ₹ 2891.15 LAKH UNDER RIDF SCHEME TO GOVERNMENT OF GOA

Recently, the NABARD has sanctioned loan under **Rural Infrastructure Development Fund** (**RIDF**) to the Government of Goa for Construction of Phase II Building of Goa, Dental College and Hospital.

 The social infrastructure created out of the project sanctioned will be the State of the Art 'Dental Hospital' for major dental treatment.

Rural Infrastructure Development Fund (RIDF)

- The Government of India had created the RIDF under NABARD in 1995-96, with an initial corpus of Rs.2000 crore.
- At present, there are 37 eligible activities under RIDF as approved by Government of India which are classified under three broad categories i.e.
 - Agriculture and related sector
 - Social sector
 - Rural connectivity
- It is maintained by the National Bank for Agriculture and Rural Development (NABARD).
- The main objective of the Fund is to provide loans to State Governments and Stateowned corporations to enable them to complete ongoing rural infrastructure projects.





 The scope of RIDF has been widened to include activities such as rural drinking water schemes, soil conservation, rural market yards, rural health centres and primary schools, mini hydel plants, shishu shiksha kendras, anganwadis etc.

Eligible Institutions under RIDF

- State Governments / Union Territories
- State Owned Corporations / State Govt. Undertakings
- State Govt. Sponsored / Supported Organisations
- Panchayat Raj Institutions/Self Help Groups (SHGs)/ NGOs

Role of RIDF

- Assist the government in identifying the important projects and in listing them
 according to their priority;
- Sanction of projects from the priority list, which is done by the sanctioning committee
 of NABARD;
- Provides the **fund support** that is needed and also in cost-effective ways;
- Monitors the entire process and **evaluates** them finally; and
- **Associates**, along with the Government for timely delivery

1.6 WHAT IS OPEN NETWORK FOR DIGITAL COMMERCE (ONDC) PROJECT?

Recently, the Department for Promotion of Industry and Internal Trade (DPIIT) had issued orders on appointing an advisory committee for Open Network for Digital Commerce (ONDC) project.

Open Network for Digital Commerce (ONDC) Project





- It is project of **Department for Promotion of Industry and Internal Trade (DPIIT)**.
- Its primary objective is to **curb digital monopolies**.
- Under the project, the onboarding of sellers, vendor discovery, price discovery and product cataloguing could be made open source on the lines of Unified Payments Interface (UPI).
- It is expected to digitise the entire value chain, standardise operations, promote
 inclusion of suppliers, derive efficiency in logistics and enhance value for
 consumers.
- The task of implementing DPIIT's ONDC project has been assigned to the Quality Council of India (QCI).
- It aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform.

Significance of ONDC Project

- It is a step in the direction of **making e-commerce processes open source**, thus creating a platform that can be utilised by all online retailers.
- The open source of software and process implies that the code or the steps of that
 process is made available freely for others to use, redistribute and modify it.
- It would mean that all e-commerce companies will have to operate using the same processes which could give a huge booster shot to smaller online retailers and new entrants.
- It is expected to set standards for onboarding retailers on online market places as well as for the supply and delivery of products through online channels.
- It aims to bring some kind of standards and streamline the country's e-commerce ecosystem.





Members of advisory committee for ONDC Project

- The National Health Authority CEO and former TRAI Chairman RS Sharma and Infosys non-executive chairman Nandan Nilekani are on this council.
- The **other members** are:
 - Quality Control of India Chairman Adil Zainulbhai,
 - Avaana Capital Founder Anjali Bansal,
 - Digital India Foundation Co-Founder Arvind Gupta,
 - National Payments Corporation India CEO Dilip Asbe,
 - NSDL e-Governance MD & CEO Suresh Sethi,
 - CAIT Secretary General Praveen Khandelwal, and
 - Retailers Association of India CEO Kumar Rajagopalan

Digital Monopolies

- It refers to a scenario wherein e-commerce giants or Big Tech companies tend to dominate and flout competition law pertaining to monopoly.
- The giants have **built their own proprietary platforms** for operations.
- India moved to shake up digital monopolies in the country's \$ 1+ trillion retail market by making public a draft of a code of conduct i.e. **Draft Ecommerce Policy.**

1.7 RBI'S FINANCIAL STABILITY REPORT

Recently, the Reserve Bank of India released its latest Financial Stability Report (FSR).

Highlights





- The FSR has found that the **actual level of bad loans** as of March 2021 is just **7.5%**.
 - The FSR is quick to point out that "macro-stress tests" for credit risk show that the GNPA ratio of Scheduled Commercial Banks may increase from 7.48 per cent in March 2021 to 9.80 per cent by March 2022.
- It highlighted that SCBs return on assets (RoA) and return on equity (RoE) maintained a positive uptrend through 2020- 2.
 - Their capital to risk-weighted assets ratio (CRAR) improved by
 130 bps year-on-year to reach 16 per cent in March 2021.
- The gross non-performing assets (GNPA) and net NPA (NNPA) ratios remained stable during the second half of 2020-21, amounting to 7.5 per cent and 2.4 per cent respectively in March 2021.
- The overall **provisioning coverage ratio (PCR) increased** from 66.2 per cent in March-2020 to 68.9 per cent in March 2021.
- The **sectors of concern** for NPAs:
 - CGEM (construction, gems and jewelry, engineering and mining) have over 15% ratio while metals, infra, power, textiles, food etc. are in double digits.
 - **Chemicals and auto** have done well with 5-7% range.
- The **gross NPA ratio for private banks** could rise to 5.82% by March 2022 from 4.78% as of March 2021 under the baseline scenario.
- The **PSU Banks could see their bad loans rise** to 12.52% which reported a gross NPA ratio of 9.54% as of March 2021.

Financial Stability Report (FSR)





- It is one of the most crucial documents on the Indian economy as it presents an assessment of the health of the financial system.
- It is **published twice** a year.
- It puts together a **wealth of data and information** that also allows the RBI to assess the state of the domestic economy.
- It allows the RBI to **assess the macro-financial risks** in the economy.
 - Macro-financial risks refer to the risks that originate from the financial system but affect the wider economy as well as risks to the financial system that originate in the wider economy.

Capital to Risk-Weighted Assets Ratio (CRAR)

- It is also known as Capital adequacy Ratio.
- It is the ratio of a **bank's capital to its risk.**
- It is arrived at by dividing the capital of the bank with aggregated risk-weighted assets for credit risk, market risk, and operational risk.
- The higher the CRAR of a bank the better capitalized it is.
- It is calculated by adding a bank's tier 1 capital and tier 2 capitals and dividing the total by its total risk-weighted assets.
- It is decided by central banks and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process.

Provisioning Coverage Ratio (PCR)

• It refers to the **prescribed percentage of funds** to be set aside by the banks for **covering the prospective losses** due to bad loans.





- The Reserve Bank advised the banks to segregate the surplus of the provision under PCR vis-a-vis as required as per prudential norms into an account styled as "countercyclical provisioning buffer".
- A coverage ratio of the bank will be measured by dividing net equity (equity minus net NPA) by total assets less intangible assets i.e. Coverage ratio= (Equity- net NPA)
 / (Total assets intangible assets).

1.8 LOAN GUARANTEE SCHEME FOR COVID AFFECTED SECTORS (LGSCAS)

Recently, the Union Cabinet has approved the Loan Guarantee Scheme for Covid Affected Sectors (LGSCAS).

 It has also approved additional funding up to Rs. 1.50 lakh crore under Emergency Credit Line Guarantee Scheme (ECLGS).

Loan Guarantee Scheme for Covid Affected Sectors (LGSCAS)

- The proposed LGSCAS is aimed at upscaling the medical infrastructure in the country, specifically targeting underserved areas.
- It would provide a guarantee of 50 percent for brownfield projects and 75 per cent
 to greenfield projects for loans sanctioned up to Rs.100 crore, set up at urban or rural
 locations other than 8 Metropolitan Tier 1 cities.
- For aspirational districts, the guarantee cover for both brownfield expansion and greenfield projects shall be 75%.

Emergency Credit Line Guarantee Scheme (ECLGS)





- The design of ECGLS provides flexibility to **quickly respond to emerging needs**, as has been evidenced by the introduction of ECLGS 2.0, 3.0 and 4.0.
- It aims to provide 100 percent guaranteed coverage to the banks, NBFCs and other lending institutions in order to enable them to extend emergency credit to business entities.
- The business enterprises/MSMEs including proprietorship, partnership, LLPs are eligible for ECLGS.

Target under LGSCAS and ECLGS

- The LGSCAS Scheme would be applicable to all eligible loans sanctioned up to 31.03.2022, or till an amount of Rs. 50,000 crore is sanctioned, whichever is earlier.
- The ECLGS would be applicable to all eligible loans sanctioned under Guaranteed Emergency Credit Line (GECL) till 30.09.2021, or till an amount of rupees four lakh fifty thousand crore is sanctioned under the GECL, whichever is earlier.

Implication of LGSCAS and ECLGS

- The LGSCAS has been formulated as a specific response to an exceptional situation
 the country has witnessed due to lack of adequate health infrastructure in the light of
 second wave of Covid-19.
- The approved scheme is expected to help the country in shoring up its much-needed healthcare infrastructure along with creating more employment opportunities.
- The main objective of LGSCAS is to partially mitigate credit risk (primarily construction risk) and facilitate bank credit at lower rates of interest.
- The government has further enlarged the scope of ECLGS on account of the disruptions caused by the second wave of COVID 19 pandemic to businesses across various sectors of the economy.





- The enhancement is expected to provide much needed relief to various sectors of the economy by incentivizing lending institutions to provide additional credit of up to Rs. 1.5 lakh crore at low cost.
- It is also expected to have a **positive impact on the economy and support its revival** besides supporting MSMEs to continue functioning during the current unprecedented situation.

1.9 INDIA EMERGES AS 5TH LARGEST FOREX RESERVES HOLDER

Recently, the Minister of State for Finance has stated that **India's FOREX reserves stood at \$608.99** billion as on June 25, 2021.

Highlights

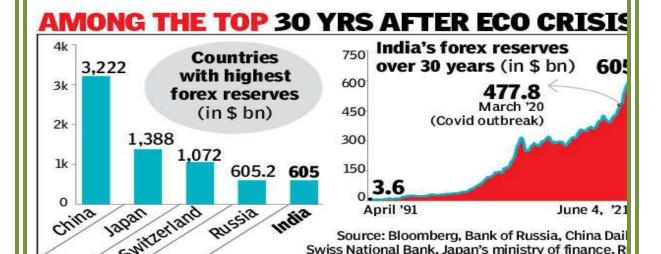
- India has emerged as the fifth largest foreign exchange reserves holder in the world after China, Japan, Switzerland and Russia.
- India's foreign exchange reserves position is comfortable in terms of import cover of more than 18 months.
- India's foreign exchange reserves provides cushion against unforeseen external shocks.
- The **variation in India's FOREX reserves** is primarily the outcome of:
 - RBI's intervention in the foreign exchange market to smoothen exchange rate volatility;
 - Valuation changes due to movement of US dollar against other international currencies in the reserve basket;
 - Movement in gold prices; and





- Interest earnings from deployment of foreign currency assets and inflow of aid receipts
- In 2020-21, India's balance of payments recorded surplus in both current account and **capital account** which contributed to the increase in foreign exchange reserves during the year.
- The current account deficit, accompanied by increasing foreign exchange reserves, reflects a surplus on the balance of payments i.e., the magnitude of the net capital inflows exceeds the volume of the current account deficit.
- The overall stability of the external sector depends on other components of balance of payments including remittances (transfers), income in the current account, the size of net capital flows and external debt.

Foreign Exchange Reserve?



They are assets such as foreign currencies, gold reserves, treasury bills, etc. retained by a **central bank** that checks the balance payments and influences the foreign exchange rate of its currency.

Swiss National Bank, Japan's ministry of finance, R





- The International Monetary Fund defines reserves as external assets that are readily available to and controlled by monetary authorities for:
 - **Direct financing** of external payments imbalances; and
 - Indirectly regulating the magnitudes of such imbalances through intervention in exchange markets to affect the currency exchange rate, and/or for other purposes
- The Reserve Bank of India (RBI) acts as the custodian of foreign reserves, and manage reserves.
- It consists of cash, gold, bonds, bank deposits and financial assets denominated in foreign currencies.

Purpose of the Foreign Exchange Reserve

- The most significant objective behind this is to ensure that RBI has backup funds if their national currency rapidly devalues or becomes altogether insolvent.
- If the value of the Rupee decreases due to an increase in demand of the foreign currency then RBI sells the dollar in the Indian money market so that depreciation of the Indian currency can be checked.
- A country with a good stock of forex has a good image at the international level because the trading countries can be sure about their payments.
- A good forex reserve helps in attracting foreign trade and earns a good reputation in trading partners.

1.10 GOVT AMENDS IBBI REGULATIONS, 2016

Recently, the Insolvency and Bankruptcy Board of India (IBBI) has notified the Insolvency and Bankruptcy Board of India (Insolvency Resolution Process for Corporate Persons) (Second Amendment) Regulations, 2016.





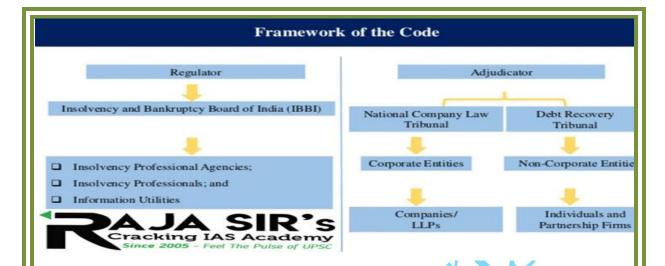
Amendments

- A corporate debtor (CD) may have changed its name or registered office address prior to commencement of insolvency.
- The amendment requires an insolvency professional (IP) conducting CIRP to disclose all former names and registered office address(es)so changed in the two years preceding the commencement of insolvency along with the current name and registered office address of the CD.
- The interim resolution professional (IRP) or resolution professional (RP) may
 appoint any professional, including registered valuers, to assist him in discharge of his
 duties in conduct of the CIRP.
- The amendment provides that the IRP/RP may appoint a professional, other than
 registered valuers, if he is of the opinion that the services of such professional are
 required and such services are not available with the CD.
- The RP is duty bound to find out if a CD has been subject to avoidance transactions, namely, preferential transactions, undervalued transactions, extortionate credit transactions, fraudulent trading and wrongful trading, and file applications with the Adjudicating Authority seeking appropriate relief.
- The amendment requires the RP to file Form CIRP 8 on the electronic platform of the Board, intimating details of his opinion and determination in respect of avoidance transactions.

Insolvency and Bankruptcy Board of India (IBBI)







- It was established on 1st October, 2016 under the Insolvency and Bankruptcy Code, 2016 (Code).
- It is a key pillar of the ecosystem responsible for implementation of the Code that
 consolidates and amends the laws relating to reorganization and insolvency resolution of
 corporate persons, partnership firms and individuals.
- It has regulatory oversight over the Insolvency Professionals, Insolvency Professional Agencies, Insolvency Professional Entities and Information Utilities.
- It writes and enforces rules for processes, namely, corporate insolvency resolution, corporate liquidation, individual insolvency resolution and individual bankruptcy under the Code.
- It has been designated as the 'Authority' under the Companies (Registered Valuers and Valuation Rules), 2017 for regulation and development of the profession of valuers in the country.

Powers and Functions of Insolvency and Bankruptcy Board of India (IBBI)

• Register insolvency professional agencies, insolvency professionals and information utilities and renew, withdraw, suspend or cancel such registrations.





- **Specify the minimum eligibility requirements** for registration of insolvency professional agencies, insolvency professionals and information utilities.
- Specify by regulations standards for the functioning of insolvency professional agencies, insolvency professionals and information utilities.
- Lay down by regulations the minimum curriculum for the examination of the insolvency professionals for their enrollment as members of the insolvency professional agencies.
- Monitor the performance of insolvency professional agencies, insolvency professionals and information utilities and pass any directions as may be required for compliance of the provisions of this Code and the regulations issued hereunder.
- Publish such information, data, research studies and other information as may be specified by regulations.

1.11 REFORMS BOOST INDIA'S RANKING IN TRADE FACILITATION

India has significantly improved its ranking in terms of trade facilitation due to various reforms undertaken by various departments, especially customs under the Central Board of Indirect Taxes (CBIC). India has scored 90.32 per cent in United Nation's Economic and Social Commission for Asia Pacific's (UNESCAP) latest Global Survey on Digital and Sustainable Trade Facilitation, a finance ministry statement said. The survey hails this as a remarkable jump from 78.49 per cent in 2019.

Genesis







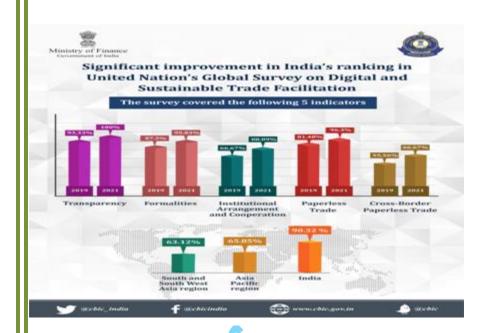
- Central Board of Indirect Taxes and Customs (CBIC) has been at forefront of path
 breaking reforms under the umbrella of 'Turant' Customs to usher in a faceless,
 paperless and contactless customs by way of a series of reforms, the finance ministry
 statement said.
- This has had a direct impact in terms of the improvement in the UNESCAP rankings on digital and sustainable trade facilitation, it said.
- Further, during the COVID-19 pandemic, customs formations have made all efforts to expedite COVID related imports such as oxygen related equipment, life-saving medicines and vaccines.





 A dedicated single window COVID-19 24*7 helpdesk for EXIM trade was created on the CBIC website to facilitate quick resolution of issue(s) faced by importers.

Trade Facilitation



- The Global Survey on Digital and Sustainable Trade Facilitation is conducted every two years by UNESCAP.
- The 2021 survey includes an assessment of 58 trade facilitation measures covered by the WTO's Trade Facilitation Agreement.
- After evaluation of 143 economies, the 2021 survey has highlighted India's significant improvement in the scores on all five key indicators...
- Transparency improved to 100 per cent in 2021 from 93.33 percent in 2019, formalities rose to 95.83 per cent in 2021 from 87.5 percent in 2019.





- **Institutional arrangement and cooperation** jumped to 88.89 percent in 2021 from 66.67 percent in 2019.
- Other parameters like **paperless trade improved to 96.3 per cent** in 2021 from 81.48 per cent in 2019 while **cross-border paperless trade improved** to 66.67 per cent in 2021 from 55.56 per cent in 2019.
- The survey notes that **India is the best performing country** when compared to the south and south west Asia region (63.12 per cent) and Asia Pacific region (65.85 per cent), it said.
- The overall score of India has also been found to be greater than many Organisation for Economic Co-operation and Development (OECD) countries including France, the UK, Canada, Norway, Finland etc. and the overall score is greater than the average score of the EU.
- India has achieved a 100 per cent score for the Transparency index and 66 per cent in the Women in trade component.

1.12 CHANGES TO DEPOSIT INSURANCE LAWS: HOW ACCOUNT HOLDERS WILL GAIN

The recent **troubles for depositors in getting immediate access to their funds** in banks such as Punjab & Maharashtra Co-operative (PMC) Bank, Yes Bank and Lakshmi Vilas Bank has put spotlight on the **subject of deposit insurance**.

Deposit insurance?

 A depositor has a claim to a maximum of Rs 5 lakh per account as insurance cover in an unlikely event of a bank failing in India.





- The cover of Rs 5 lakh per depositor is provided by the Deposit Insurance and Credit
 Guarantee Corporation (DICGC), which is a fully owned subsidiary of the Reserve
 Bank of India.
- The depositors having more than Rs 5 lakh in their account have **no legal recourse to** recover funds in case a bank collapses.
- While the depositors enjoy the highest safety on their funds parked with banks, unlike the equity and bond investors in the banks.

Who pays for this insurance?

- Deposits in public and private sector banks, local area banks, small finance banks, regional rural banks, cooperative banks, Indian branches of foreign banks and payments banks are all insured by the DICGC.
- The premium for this insurance is paid by banks to the DICGC, and not be passed on to depositors.
- The banks currently pay a minimum of 10 paise on every Rs 100 worth deposits to
 the DICGC as premium for the insurance cover, which is now being raised to a
 minimum of 12 paise.
- The government raised the **insurance amount to Rs 5 lakh from Rs 1 lakh.**

Significance of changes to deposit insurance laws

- The depositors normally end up waiting for 8-10 years before they are able to
 access their deposits in a distressed bank only after its complete liquidation.
- The depositors will get insurance money within 90 days, without waiting for eventual liquidation of the distressed banks.
- It will cover banks already under moratorium and those that could come under moratorium.





- The DICGC would **collect all information relating to deposit accounts within the first 45 days** of the bank being put under moratorium.
 - In the next 45 days, it will **review the information and repay depositors** closer to the 90th day.
- It will be **beneficial to depositors of PMC Bank**, under moratorium since September 2019, with depositors not being able to access funds beyond Rs 1 lakh.

1.13 HOW RESOLUTION 'PRE-PACKS' FOR MSMES CAN SPEED UP INSOLVENCY CASES

Recently, the Insolvency and Bankruptcy Code (Amendment) Bill, 2021 has proposed 'pre-packs' as an insolvency resolution mechanism for Micro, Small and Medium Enterprises (MSMEs).

Pre-packs?

- A pre-pack is an agreement for the resolution of the debt of a distressed company through an agreement between secured creditors and investors instead of a public bidding process.
- The system of pre-pack has become an increasingly popular mechanism for insolvency resolution in the UK and Europe over the past decade.
- In India's case, such a system would likely require that financial creditors agree on terms with potential investors and seek approval of the resolution plan from the National Company Law Tribunal (NCLT).
- It would likely be completed much faster than the traditional Corporate Insolvency
 Resolution Process (CIRP) which requires that the creditors of the distressed company
 allow for an open auction for qualified investors to bid for the distressed company.

Benefits of Pre-packs





- The pre-pack would act as an important alternative resolution mechanism to the CIRP and would help lower the burden on the NCLTs.
- In the case of pre-packs, the incumbent management retains control of the company until a final agreement is reached.
- The transfer of control from the incumbent management to an insolvency professional as is the case in the CIRP leads to disruptions in the business and loss of some high-quality human resources and asset value.
- The pre-packs would mostly be used for businesses that are running, the investors
 would likely need to maintain good relations with operational creditors.
- Speed: A pre-pack process is typically less time-consuming and cheaper than formal
 proceedings, as the resolution is negotiated and agreed before initiating the statutory
 resolution framework.
- Confidentiality: The element of confidentiality prevents destruction of value that takes
 place on the proclamation of insolvency.
- Sanction of appropriate authority under the statue: The other forms of
 restructuring do not possess sanctions from appropriate authority but pre-packs work
 within the fold of statutory schemes, which makes the outcome binding on all the
 stakeholders.
- Reduction of cost & time in litigation: The pre-pack process has recognition across
 the globe and the need for a pre-pack process in India is necessary to revive the debt
 ridden corporates.

Necessity of Pre-packs in India

 The IBC has a positive impact on the promoters of the corporate debtors in terms of repayment, liquidation is a grave threat to Corporate Insolvency Resolution Process (CIRP).





- If the CIRP fails that would **lead to liquidation which is not good for our economy's health** it might be seen as the best option in the short-run but will have a deep devastating effect for the corporates in the long-run.
- The necessity of the pre-pack is that, there is a possibility that before the pre-pack stage the corporate debtor may enter into management buyout for the transferring of the assets to another entity.
- The risk of the aforementioned situation would not arise if the pre-pack is approved by the Adjudicating Authority.

Drawbacks of Pre-packs

- Lack of Transparency: The key drawback of a pre-packaged insolvency resolution is the reduced transparency compared to the CIRP as financial creditors would reach an agreement with a potential investor privately and not through an open bidding process.
- **Issue of fair treatment:** The system of pre-packs could lead to stakeholders such as operational creditors raising issues of fair treatment when financial creditors reach agreements to reduce the liabilities of the distressed company.
 - There may be questions of whether secured lenders have been fair to other creditors.
- Hesitation from the Banking Sector: The bankers themselves may hesitate to restructure liabilities outside of an open bidding process for fear of their decisions leading to investigations by agencies.
 - Unlike in the case of a full-fledged CIRP which allows for price discovery, in the case of a pre-pack the NCLT would only be able to evaluate a resolution plan based on submissions by the creditors and the investor.





2.1 Memorandum on Cooperation (MoC) between Competition Commission of India (CCI) and Japan Fair Trade Commission (JFTC)

Recently, the Union Cabinet has approved the Memorandum on Cooperation (MoC) between Competition Commission of India (CCI) and Japan Fair Trade Commission (JFTC).

- The MoC is aimed at promoting and strengthening cooperation in the matter of Competition Law and Policy.
- ❖ It will enable CCI to **emulate and learn** from the experiences and lessons of its counterpart **competition agency in Japan** which would enhance efficiency.
- **❖** It will help **improve enforcement of the Competition Act, 2002** by CCI.
- ❖ It will benefit **consumers** at large and will promote **equity and inclusiveness**.

COMPETITION COMMISSION OF INDIA (CCI)

- ❖ It was established in March 2009 by Government of India under the Competition Act, 2002 for the administration, implementation, and enforcement of the Act.
- ❖ It is a **statutory body** under the Ministry of Corporate Affairs.
- It is required to give opinion on competition issues on a reference received from a statutory authority established under any law.
- It aims to undertake **competition advocacy**, **create public awareness** and **impart training** on competition issues.





❖ Section 18 of the Competition Act, 2002 permits CCI to enter into any arrangement with any agency of any foreign country for the purpose of discharging its duties or performing its functions under the Act.

OBJECTIVES OF COMPETITION COMMISSION OF INDIA (CCI)

- **Eliminate** practices having **adverse effect** on competition
- Promote and sustain competition
- Protect the interests of consumers
- **trade** in the markets of India
- **Establish a robust competitive environment** through:
- ➤ **Proactive engagement** with all stakeholders, including consumers, industry, government and international jurisdictions;
- ➤ Being a **knowledge intensive organization** with high competence level; and
- **Professionalism, transparency, resolve** and **wisdom** in enforcement

2.2 CABINET APPROVES MOU BETWEEN ICOAI AND ACCA RELATING TO COST ACCOUNTANCY

Recently, the Union Cabinet has approved the Memorandum of Understanding (MoU) between Institute of Cost Accountants of India (ICoAl) and the Association of Chartered Certified Accountants (ACCA), United Kingdom (UK).

Highlights of MoU





- ❖ It will provide **mutual advanced entry to the Members of both the Institutes** through exemptions from appearing in majority of papers to acquire the qualification of the other Professional Body.
- ❖ It will lead to a focus attention towards exchange of knowledge and exchange of research and publications which will strengthen good governance practice.
- ❖ Both parties will initiate **joint research** relevant to **Cost Accountancy** profession which could involve collaborative research in technical areas.
- It will facilitate the movement of professionals in both jurisdictions and will enhance the employability of Cost Accountants in India and abroad.
- ❖ It will provide a pathway to enable members of one Institute to seek full membership status of other Institute by successfully passing the minimum number of subjects of professional level.

Institute of Cost Accountants of India (ICoAl)

- ❖ It was first **established in 1944** as a **registered company** under the Companies Act.
- The erstwhile objectives of ICoAl were promoting, regulating and developing the profession of cost accountancy.
- In 1959, the Institute was established by a special act of Parliament, namely, the Cost and Works Accountants Act, 1959 as a statutory professional body.
- ***** It was established for the **regulation of the profession of cost and works** accountancy.





- ❖ It is the **only recognised statutory professional**organisation and licensing body in India specializing exclusively in cost and works accountancy.
- ❖ To develop the Cost and Management Accountancy function as a powerful tool of management control in all spheres of economic activities;
- ❖ To promote and develop the adoption of scientific methods in cost and management accountancy;
- ❖ To develop the professional body of members and equip them fully to discharge their functions and fulfill the objectives of the Institute in the context of the developing economy;
- To keep abreast of the latest developments in the cost and management accounting principles and practices, to incorporate such changes are essential for sustained vitality of the industry and other economic activities;
- ❖ To exercise supervision for the **entrants to the profession** and to ensure strict adherence to the best ethical standards by the profession;
- To organise seminars and conferences on subjects of **professional interest in different parts of the country** for cross-fertilisation of ideas for professional growth; and
- ❖ To carry out **research and publication activities** covering various economic spheres and the publishing of books and booklets for spreading information of professional interest

Association of Chartered Certified Accountants (ACCA)

It was founded in 1904 and incorporated by Royal Charter in 1947 under the laws of England and Wales.





- ❖ It is the **global body for professional accountants**, with more than 2,27,000 fully qualified members and 5,44,000 future members worldwide.
- The idea of opening up the profession, doing things differently and better, and never losing sight of our public interest remit are concepts that lie at the very heart of ACCA's DNA.

2.3 INDIA ASKS OIC NOT TO ALLOW 'VESTED INTERESTS' LIKE PAKISTAN TO USE IT FOR 'ANTI-INDIA PROPAGANDA

Recently, India had called on the **Organisation of Islamic Cooperation (OIC)** to not allow "vested interests" such as Pakistan to "subvert" the grouping's platform for anti-India propaganda through biased and one-sided resolutions.

Significance

- India's comments came in response to the OIC secretary-general proposing to send a delegation to Jammu and Kashmir in line with relevant resolutions by the grouping's council of foreign ministers.
- The OIC secretary-general Yousef Al-Othaimeen also asked about the possibility of a meeting between India and Pakistan.
- ❖ The Indian ambassador had used the meeting with the OIC official to convey the need to correct some of the misperceptions about India that are perpetrated by vested interests in the OIC.
- ❖ Pakistan has repeatedly sought to **raise the Kashmir issue at the OIC** against the backdrop of India's dramatically improved relations with several key players in West Asia and in the Islamic Organisation.

Organisation of Islamic Cooperation (OIC)

It is the second largest inter-governmental organisation after the United Nations.





- ❖ It has a **membership of 57 states**, covering four continents.
- ❖ Its 57 members include **Pakistan**, **Turkey**, **the UAE**, **Afghanistan and Bangladesh**.
- ❖ It is the **collective voice of the Muslim world** to ensure and safeguard their interest on economic socio and political areas.
- ❖ Its Headquarters is in **Jeddah**, **Kingdom of Saudi Arabia**.
- ❖ It was established upon a decision of the historical summit which took place in Rabat, Kingdom of Morocco in 1969 following the criminal arson of Al-Aqsa Mosque in occupied Jerusalem.
- ❖ India is **not** a **member of the OIC**, but was invited as a 'Guest of Honour' at its plenary in 2019.

2.4 INDIA OUT CAMPAIGN IN MALDIVES

Recently, the Indian High Commission in the Maldives has sought government action and greater security following what it calls recurring articles and social media posts attacking the dignity of the High Commission and diplomats posted in the country.

Genesis

- India-Maldives relations **deteriorated during the Progressive Party's (PPM) five-year rule** and the anti-India sentiment was apparent back then.
- The anti-India rhetoric was used during that time because the Maldivian government was pro-China.

India Out Campaign?

- It started in 2020 as **on-ground protests in the Maldives**, and later widely spread across social media platforms using the phrase with a related hashtag.
- The main reasons behind the 'India Out' campaign was rooted in the controversy surrounding the ALF choppers and India's reported refusal to take them back.





- It was launched by the opposition coalition PPM and PNC both on the street as well as
 on social media demanding the expulsion of Indian military personnel present in the
 country.
- Its aim is to garner people's support to its demand for the release of President Yameen by putting the ruling Maldivian Democratic Party (MDP) and India in a bad light.

Reasons for decade long agitation in Maldives

- The first is the long-standing controversy over the two Dhruv Advanced Light Helicopters (ALF) that were given by India to the Maldives in 2010 and in 2015.
 - These helicopters were for **humanitarian purposes only** but some in the **anti-India constituency were trying to portray** that by gifting these helicopters, India was **creating military presence** in the country because they were military choppers.
- In 2016, the Yameen government asked India to take back these gifted helicopters and
 refused to extend the term of the agreement that would extend their stay and use in the
 country.
- A recurring complaint in social media posts by prominent members of 'India Out' campaign
 is the lack of transparency in agreements being signed between the Solih government
 and India.
- The agreements signed by India and the Maldives are allegedly harmful to the Maldives
 including the agreement on the hydrographic survey, and the agreement on setting up
 of Coast Guard dockyard at UthuruThilaFalhu (UTF) funded by India.
- It is argued that the **Solih administration is "selling off Maldives"** by entering into these agreements with India in the field of defence and security, and infrastructure development.

Impact on Bilateral Relations between India and Maldives

• India has made **heavy investments in the Maldives** and an unfriendly party in power in case of defeat of the MDP in the future elections would go against India's interests.





- It is important for India to sensitise the people of Maldives about the hateful campaigns going against it on baseless assumptions.
- The long silence on such campaigns, even though not supported and encouraged by the
 incumbent government, might facilitate the anti-India constituency an opportunity to
 validate their assumptions.
- The anti-India propaganda is getting traction because people don't have any information about the contents of various deals signed between the two countries.

2.5 INDIA, NEPAL EASE CARGO MOVEMENT RULES

Recently, the **rail transportation between India & Nepal** got a major boost after India and Nepal signed the Letter of Exchange (LoE) to the **India-Nepal Rail Services Agreement (RSA) 2004.**

Highlights

- It will authorize all cargo train operators to utilize the Indian railway network to carry all containers bound for Nepal whether bilateral freight between Indian and Nepal or third country freight from Indian ports to Nepal.
- All kinds of cargoes in all categories of wagons that can carry freight on Indian
 Railways network within India can also carry freight to and from Nepal.
- The wagons owned by Nepal Railway Company will also be authorized to carry Nepal-bound freight (over the Indian Railways network as per IR standards and procedures.

India-Nepal Rail Services Agreement (RSA) 2004

- It was executed on **21st May 2004** between Ministry of Railways, Government of India and Ministry of Industry, Commerce & Supplies (now Ministry of Commerce), Government of Nepal.
- It was launched for **introduction of freight train services** between these two countries to and from Birgunj (Nepal) via Raxaul (India).
- It guides movement between India and Nepal by rail.





- Its rationale was to **create a framework for operational and commercial aspects** and procedure for customs clearances for rail bound cargo.
- It shall be **reviewed every five years** and may be modified by the Contracting Parties by mutual consent.

2.6 21ST SESSION OF INDIA-ITALY JOINT COMMISSION FOR ECONOMIC COOPERATION

Recently, the 21st Session of India-Italy Joint Commission for Economic Cooperation (JCEC) was held.

Highlights

- The extensive discussions were held on bilateral trade and investment and economic cooperation in the areas of Food Processing, Textiles, Leather, Railways, Start-ups and promotion of SMEs.
- The **bilateral market access issues and non-tariff barriers** were discussed to facilitate trade and investment.
- The progress on the outcomes of India-EU leaders Summit in Porto, Portugal was reviewed.
- India raised the issues of Mutual recognition of COWIN Vaccine Certificate and
 opening up of travel restrictions, longer duration of Business Visas and portability of social
 security benefits of Indians working in Italy.
- It reiterated the vision laid down by the Prime Ministers of India and Italy, under the Plan
 of Action adopted in 2020 to promote energy transition, leveraging technology and
 climate partnerships.

India-Italy Plan of Action 2020-24

The two Prime Ministers appreciated the deep civilization ties between the two countries
and welcomed the high degree of convergence in the political, economic and strategic
interests of the two countries.





Economic Strengthening

- The two Prime Ministers underlined the need to intensify cooperation in high technology, clean energy and energy sector development, infrastructure, food processing.
- They agreed to promote innovative financial schemes capable of supporting bilateral investments.

Defence Cooperation

- The two Prime Ministers welcomed the steady strengthening of defence cooperation between the two countries and recognized the importance of regular defence exchanges between the two countries.
- They underscored the need to further expand defence engagement through greater two-way collaboration and technology cooperation, co-development and co-production.

Cooperation during Covid-19

 The two Leaders concurred that the Covid-19 pandemic calls for an inclusive multilateral approach to health protection, especially in the framework of the United Nations and the World Health Organization.

Science, technology and research collaboration

- They welcomed the progress made under India-Italy Science and Technology Cooperation and noted with satisfaction the implementation of various S&T activities under India-Italy Executive Programme of Cooperation.
- It suggested that the Italian Space Agency (ASI) and the Indian Space Research Organization (ISRO) should implement their cooperation by expanding some areas of common interest.

Cooperation in counter terrorism and security





 Both sides support a comprehensive approach in preventing and combating terrorism, based on respect for human rights and fundamental freedoms, the rule of law and international law.

Cooperation and connectivity

- They stressed the importance of the Indo-Pacific region as a fundamental area for connecting Asia and Europe.
- The leaders acknowledged the potential of new international organizations such as the Coalition on Disaster Resilient Infrastructures (CDRI) and the International Solar Alliance (ISA).

Culture, Tourism and People-to-people ties

 Both leaders underlined the importance of enhancing cooperation in the tourism sector to encourage and facilitate the visits of tourists to each other's country.

Importance of India-Italy relations

- Italy and India are **important trading partners in key sectors** such as finance, railway development, fashion industry and automobile manufacturing.
- In 2019, **trade volume between the two nations reached 9.52 billion euros**, with Italy emerging as India's fifth largest trading partner in the EU.
 - The Italian Foreign Direct Investment to India is expected to reach \$2 billion euros in 2020.
- It is time for India and Italy to acknowledge the deep geopolitical potential of their partnership and act accordingly.
- The **Indo-Pacific**, at one end, is becoming the **leading route for international maritime trade**, and the **Mediterranean Sea**, on the other, is the natural point of arrival for ship cargos **arriving from Asia**.





Italy is not only present in the Mediterranean, but also extends its projection in the Red
Sea up to the coasts of Somalia with either naval bases or naval vessels in cooperation
with European and NATO forces.

2.7 TIBET POLICY OF INDIA

Recently, the **Chinese nationals displayed banners in protest** from across the Indus river, close to the Line of Actual Control (LAC), when Indian villagers were celebrating the birthday of **the Dalai Lama** in Demchok in eastern Ladakh.

India's Tibet Policy?

- India currently has an **executive policy (not a law) on Tibetans** in India called **"Tibetan Rehabilitation Policy 2014."**
- It was a significant development for Tibetans' welfare in India but it is devoid of any substantive relevance on core issues of Tibet.
- India's stand on Tibet and its proximity to the Central Tibetan Administration and Dalai Lama was in accordance with the **New Delhi-Beijing understanding.**

Importance of Tibet for India

- There is **no other civilization or country which has been more grateful for Tibet** than India throughout the recorded history of Tibet.
- Millions of Indian, particularly in UT/states like Jammu & Kashmir, Himachal,
 Uttarakhand, Sikkim, West Bengal, and Arunachal worship His Holiness the Dalai Lama.
- Tibetan plateau's water resources supply fresh water to an estimated 1.8 billion people and almost half of the water (48 per cent) that flows from the Tibetan plateau runs directly into India.
- India's land borders with China are essentially those between India and Tibet and in many ways, China's perspectives on India are shaped by its Tibet policy.
- India hosts the world's largest Tibetan diaspora of more than 75,000 people and it also hosts the Central Tibetan Administration (CTA) in Dharamshala.





 The Indian Army's proposal of studying Tibetan history, culture, and language on both sides of the Line of Actual Control and the international boundary for its officers is hinting at a changing stance in the Indian side about using the Tibet card.

Challenges to India's Tibet Policy

- China's status as upper riparian and absolute control over these rivers not only gives
 China a chokehold on India's economy but could cost the catastrophic loss of countless human lives.
- China's larger regional ambitions relating to South Asia and the Indian Ocean Region
 preclude it from a relationship of equality with New Delhi.
- India's continued silence on the succession issue ignores its value system regarding
 protecting religious beliefs.

India's changing stance on Tibet

- In 2008, the then Prime Minister visited China and the Joint Statement lacked the familiar Indian reiteration that it recognized the Tibet Autonomous Region as part of the territory of the People's Republic of China.
- In 2009, on the 50th anniversary of the Dalai Lama's exile, the **Indian government** permitted him to visit Tawang, for the first time since 2003.
- During the Doklam crisis in 2017, the government had allowed Sangay to unfurl a Tibetan flag near Pangong Tso.
- The central government drew back and changed its policy on the eve of the first informal summit in Wuhan in 2018.
- The policy took another turn in August 2020 when New Delhi decided to **use the Special**Frontier Force, comprising Tibetan refugees, to capture the heights in the south bank of the Pangong Tso.

Road Ahead

• It is now high time that **India should also adopt a more assertive stand on the Tibet issue** in dealing with China.





- India should adopt its version of Tibet policy similar to the Tibet Policy and Support Act
 of 2020 of the US.
- It is high time that India should take a firm stand to deal with China by adopting a more assertive policy framework regarding Tibet.
- India should confidently take the issue of Tibetan freedom, not autonomy, in the
 forefront of its fight against CCP's imperialism, rather than appearing a constantly
 bullying neighbour.





2.8 INDIA LAUNCHES BHIM-UPI SERVICES IN BHUTAN

Recently, the Union Minister of Finance & Corporate Affairs and Finance Minister of Bhutan have jointly launched **BHIM–UPI in Bhutan**.

Highlights

- ❖ The BHUM-UPI has created more than 100 million UPI QRs in the last 5 years and BHIM UPI in 2020-21 has processed 22 billion transactions worth value Rs 41 lakh crore.
- ❖ Bhutan became the second country after Singapore to have BHIM-UPI acceptance at merchant locations, NPCI International Payments Ltd (NIPL).
- ❖ The payment system was launched by NIPL, the international arm of National Payment Corporation of India (NPCI), in partnership with the Royal Monetary Authority (RMA) of Bhutan.
- ❖ The RMA will ensure that the participating NPCI mobile application through UPI QR transactions is accepted at all RMA acquired merchants in Bhutan.

Significance of BHIM-UPI for Bhutan

- ❖ Bhutan becomes the **first country in India's immediate neighbourhood** to use the BHIM app for mobile-based payments and to adopt UPI standards for its QR deployment.
- ❖ The BHIM-UPI services have started in Bhutan under **India's neighbourhood first policy**.
- ❖ It fulfills the commitment made by the two countries during the Prime Minister of India's State visit to Bhutan in 2019.
- ❖ The payment infrastructures of the two countries are seamlessly connected and will benefit a large number of tourists and businessmen from India who travel to Bhutan.
- ❖ It will **enhance the ease of living and ease of travelling** through cashless transactions at the touch of a button.







BHIM-UPI

- ❖ The Bharat Interface for Money (BHIM) is India's digital payment application (app) that works through UPI.
- ❖ It is pioneered and developed by **National Payments Corporation of India (NPCI).**
- The Unified Payments Interface (UPI) is a system that powers multiple bank accounts into a single mobile application.
- ❖ The UPI is an instant real-time payment system, allowing users to transfer money on a real-time basis, across multiple bank accounts without revealing details of one's bank account to the other party.

Services offered under BHIM-UPI

❖ Send Money: It enables a user to send money using Virtual Payment Address (VPA) or combination of Account Number and IFSC or even by scanning QR code.





- Request Money: It enables a user to initiate a collect request by entering Virtual Payment Address (VPA).
 - ➤ It is mandatory that the customers' mobile number is linked with the bank account.
- Scan and Pay: The customers can pay by scanning the QR code through 'Scan & Pay' and generate QR codes in the app for making payments.
- ❖ Bank Account: A customer can check the bank account which is linked with the BHIM App along with PIN status.
- ❖ It is set up under the provisions of the **Payment and Settlement**

2.9 WHAT LIES AHEAD FOR AFGHANISTAN AFTER U.S. EXIT?

Recently, India faces a situation in which it may have **no role to play in Afghanistan as the Taliban push ahead** with military offensives and preparing to take over after the exit of US and NATO forces.

Highlights

- India built vital roads, dams, electricity transmission lines and substations, schools and hospitals, etc.
- India's development assistance in Afghanistan is now estimated to be worth well over \$3 billion.
- The **2011 India-Afghanistan Strategic Partnership Agreement** recommitted Indian assistance to help:
 - o Rebuild Afghanistan's infrastructure and institutions;
 - Education and technical assistance for capacity-building in many areas;
 - Encourage investment in Afghanistan; and
 - Provide duty-free access to the Indian market

India's projects across Afghanistan





Salma Dam

- It is a **42MW Dam** in Herat province.
- It is known as the **Afghan-India Friendship Dam**.

Zaranj-Delaram Highway

- It is the 218-km highway built by the Border Roads Organisation (BRO).
- Zaranj is located close to **Afghanistan's border with Iran.**
- The \$150-million highway goes along the Khash Rud River to Delaram to the northeast of Zaranj.
- It connects to a ring road that links Kandahar in the south, Ghazni and Kabul in the east, Mazar-i-Sharif in the north, and Herat in the west.
- It provides an **alternative route into landlocked Afghanistan** through Iran's Chabahar port.

Afghan Parliament

- The **Afghan Parliament in Kabul** was built by India at \$90 million.
- It was opened in 2015 and the Prime Minister Narendra Modi inaugurated the building.

Stor Palace

- In 2016, Afghan President Ashraf Ghani and Prime Minister Modi inaugurated the restored Stor Palace in Kabul.
- It was originally built in the late 19th century.
- It was the setting for the 1919 Rawalpindi Agreement by which Afghanistan became an independent country.
- In 2009, India, Afghanistan, and the Aga Khan Development Network signed a tripartite agreement for its restoration.
 - o The **Aga Khan Trust for Culture** completed the project between 2013 and 2016.





Health Infrastructure

- India has reconstructed a **children's hospital** it had helped build in Kabul in 1972.
 - o It was named **Indira Gandhi Institute for Child Health** in 1985.
- India has also **built clinics in the border provinces** of Badakhshan, Balkh, Kandahar, Khost, Kunar, Nangarhar, Nimruz, Nooristan, Paktia and Paktika.

2.10 UNION MINISTER FOR LABOUR & EMPLOYMENT BHUPENDER YADAV CHAIRS 7TH BRICS LABOUR & EMPLOYMENT MINISTERS' MEETING

Recently, the Union Minister for Labour & Employment has chaired 7th BRICS Labour & Employment Ministers' Meeting and it adopted BRICS Labour & Employment Ministers' Declaration.

Highlights

- India organized the BRICS Labour & Employment Ministers' Meeting to exchange views on the **impact of Covid-19 on global labour market** and enhance information sharing.
- The meeting discussed **four priority areas of cooperation** which are:
 - Promoting Social Security Agreements amongst BRICS Nations;
 - Formalisation of Labour Markets:
 - o Participation of Women in the Labour Force; and
 - o Gig and Platform Workers: Role in the Labour Market
- The Ministerial Declaration recognized that the COVID-19 pandemic has negatively
 impacted the efforts made to address unemployment, decent work deficits and inequality.
- It also illustrates the **strong determination of BRICS Member countries to recover** with stronger national economies, inclusive labour markets and social protection systems.
- India stressed on enhancing the intra-BRICS solidarity and promoting sustained, inclusive, full and productive employment and decent work for all.
- It highlighted that the **new Labour Codes** provide integrated pathways towards:
 - Robust formalization of the labour market;





- o Increasing participation of women in the labour force and
- o Enhancing the role of gig and platform workers in the labour market
- The meeting emphasised on need for signing of Social Security agreements amongst BRICS nations to promote welfare of the international migrant workers.

BRICS Labour & Employment Ministers' Declaration

Promoting Social Security Agreements amongst BRICS Nations

- It is important to take into account the **International Labour Organization's (ILO) labour standards** which provide guidance on decent labour migration conditions.
- It is necessary to carry out exchange of information among BRICS countries on employment and social security for cross border labour flows and initiate social security agreements between BRICS nations.

Formalisation of Labour Markets

- It is time to enhance the **transition from informality to formality** as a means towards improving living and working conditions and productivity & job growth.
- The use of technology has high potential to facilitate faster transition to formality for aspects such as providing access to social protection simplifying registration, increasing productivity etc.
- The BRICS Network for Labour Research Institutes aims to undertake an in-depth research on E-formality practices.

Participation of Women in the Labour Force

- The sustained participation of women in the labour market and strategies for the promotion of women participation are top priorities of BRICS nations.
- The BRICS nations agreed towards commitment to gender-responsive employment and social protection policies for medium and long-term recovery.





Gig and Platform Workers: Role in the Labour Market

The BRICS nations reaffirm their commitment to support the development of the digital
economy including digital delivery of services and acknowledging the role digital platforms
in providing resilience.

BRICS?

- It is an informal group of states comprising the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa.
- It was the **Russian side** that initiated the creation of BRICS.
- In 2006, the **first BRICS Ministerial Meeting** was held at the proposal of Russian President Vladimir Putin on the margins of a UN General Assembly Session in New York
 - o In 2009, Yekaterinburg hosted the first BRIC Summit.
- BRICS countries are influential members of **leading international organisations and agencies**, including the UN, the G20, the Non-Aligned Movement and the Group of 77.
- The Russian Federation is a member of the Commonwealth of Independent States, the Collective Security Treaty Organisation and the Eurasian Economic Union.
- Russia, India and China are members of the Shanghai Cooperation Organisation and the Asia Pacific Economic Cooperation.
- Brazil is a member of the Union of South American Nations, MERCOSUR and the Community of Latin American and Caribbean States.
- The Republic of South Africa is a member of the African Union and the Southern African Development Community.
- India is a member of the South Asian Association for Regional Cooperation and BIMSTEC.

Importance of BRICS for India





- The one of the factors behind the **persistence of international institutions** is because of "sunk costs" i.e. efforts expended to set up an institution that cannot be recovered and binding the actors involved in setting it up permanently.
- New Delhi has often equated BRICS with its participation in other "Western-led" groupings such as the Quad, in order to signal to domestic constituencies that its commitment to strategic autonomy remains intact.
- The "cost" India would pay from dissolving the BRICS is far higher than simply playing along, despite its diminishing dividends from participation in that grouping.
- The BRICS also allows India and China to modulate their rivalry within the setting of a small grouping, even when bilateral relations remain rocky.
- The groupings like the BRICS and the SCO afford both India and China the opportunity to "decouple" their strategic contest from the other dimensions of the relationship.
- BRICS provides India a transcontinental reach by virtue of Brazil and South Africa's presence.
- India is a proudly revisionist power when it comes to the extant structure of international organizations and the United Nations system.
- It continues to maintain that the **international system does not recognize the country's economic and political heft** and demands top-down reform, beginning with the U.N.
 Security Council (UNSC) where it seeks permanent membership.

2.11 INDIAN NAVY GETS FIRST TWO MH-60 ROMEO MULTI-ROLE HELICOPTERS FROM US. DETAILS HERE

Recently, the **Indian Navy** accepted the first two of its **MH-60R Multi Role Helicopters** (MRH) from US Navy.

MH-60R Multi Role Helicopters (MRH)

- It is manufactured by Lockheed Martin Corporation, USA.
- It is an all-weather helicopter designed to support multiple missions with state of the art avionics/ sensors.





- The induction of these MRH would further enhance Indian Navy's three dimensional capabilities.
- It will **enhance navy-to-navy cooperation** and strengthen our combined subsurface and surface warfare capability and capacity in the Indo-Pacific region.
- It is the most advanced maritime multi-mission helicopter in operation deployed globally.
- It is the **US Navy's primary anti-submarine and anti-surface warfare helicopter** and is also capable of search and rescue and supply missions.

2.12 INDIAN NAVAL SHIP TABAR CONDUCTS MILITARY EXERCISE WITH ITALIAN NAVY

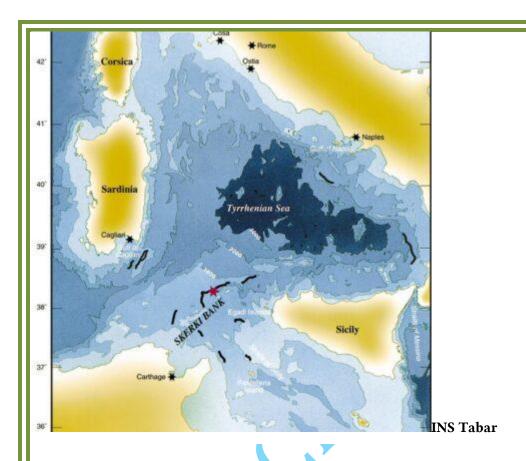
Recently, the INS Tabar undertook a Maritime Partnership Exercise with ITS Antonio Marceglia.

Maritime Partnership Exercise

- It is a part of the ongoing deployment to the Mediterranean Sea of INS Tabar.
- The exercise was held between INS Tabar of India and ITS Antonio Marceglia of Italy.
- The exercise was held at **Tyrrhenian Sea**.
- It covered a wide range of naval operations including air defence procedures, replenishment at sea, communication drills and cross deck helo operations by day and night.
- It was mutually **beneficial in enhancing interoperability** and towards consolidating combined operations against maritime threats.
- It is aimed at enhancing interoperability and facilitating exchange of best practices with partner navies in the maritime domain.







- It is a Talwar-class stealth Frigat
- **e** built for the Indian Navy in Russia.
- It is equipped with a **versatile range of weapons and sensors.**
- It is a part of the Indian Navy's Western Fleet which is based in Mumbai under Western Naval Command.
- It was **commissioned in 2004** in Kaliningrad, Russia.

Tyrrhenian Sea

It is located along the western shoreline of Italy and is considered part of the larger
 Mediterranean Sea.





- It covers an area of approximately **106,000 square miles.**
- It is situated over the boundary between the **Eurasian and African tectonic plates**.
- It is bordered by **Italy to the east**, **Islands of Corsica**, which is a French territory, and **Sardinia**, which is an Italian territory to the
- The Ligurian Sea meets the **Tyrrhenian Sea along its northwest corner**.
 - The southeastern border is defined by the island of Sicily and the "toe" area of Italy's boot.
 - The southwestern edge of the sea runs into the Mediterranean
 Sea.

It derives its name from the Tyrrhenian people, a non-Greek people largely considered Sea People.

2.13 GI Certified Bhalia Variety Of Wheat Exported To Kenya, Sri Lanka From Gujarat

Recently, the **first shipment of Bhalia variety of wheat** was exported to Kenya and Sri Lanka from Gujarat.

Bhalia Wheat

- It is a **Geographical Indication (GI) certified** variety of wheat.
- It received the Geographical Indication (GI) status in 2011.
- It is grown mostly across Bhal region of Gujarat which includes districts of Ahmadabad, Anand, Kheda, Bhavanagar, Surendranagar and
- It has **high protein content** and is sweet in taste.
- Its unique characteristic is that it is grown in the rainfed condition without irrigation and cultivated in around two lakh hectares of agricultural land in Gujarat.





- In 2020-21, the wheat exports from India witnessed a significant growth of 808 % to Rs 4034 crore from Rs 444 crore reported in the previous fiscal.
- In US dollar terms, the **wheat exports rose by 778**% to \$ 549 million in 2020-21.
- India **exported substantial quantity of grain** to seven new countries i.e. Yemen, Indonesia, Bhutan, Philippines, Iran, Cambodia and Myanmar during 2020-21.

Geographical Indication (GI) Status?

- It is a sign used on products that have a **specific geographical origin** and **possess qualities or a reputation** that are due to that origin.
- A sign must identify a product as originating in a given place in order to function as a GI.
- The TRIPS prescribes minimum standards of protection of GIs and additional protection for wines and spirits.
- India has taken legislative measures by enacting the Geographical Indications of Goods (Registration and Protection) Act, 1999.
 - It defines Geographical Indications as an indication which identifies
 such goods as agricultural goods, natural goods or
 manufactured goods as originating, or manufactured in the
 territory of a country, or a region or locality in that territory.
- An application for the registration of a GI is to be made to the Registrar of Geographical Indications in the form prescribed under the Gi Act, 1999.
- A Geographical Indication is **registered for a period of 10 years** and the registration may be renewed from time to time for a period of 10 years at a time

2.14 ROAD TO UK-INDIA FREE TRADE AGREEMENT





Recently, the UK India Business Council has today launched its report 'Road to a UK-India Free Trade Agreement: Enhancing the Partnership and achieving Self-Reliance'.

- The report has been launched when the UK and Indian Governments have not only agreed an Enhanced Trade Partnership but have committed to start FTA negotiations by the end of 2021 with the goal of doubling trade by 2030.
- The report sets out how a comprehensive UK-India FTA should accelerate selfreliance and why international investors' perceptions of Aatmanirbhar Bharat should be wholly positive.
- 77% of UK companies surveyed by the UKIBC stated that Aatmanirbhar Bharat is an
 opportunity for them to do more business with India.

Highlights

- The report includes five recommendations that the UKIBC believe would support
 the Aatmanirbhar Bharat campaign's success and deliver the objectives of the Enhanced
 Trade Partnership and FTA.
- They include a sharp focus on innovation and on digital and data sectors, and an
 assertion that India should remain open to free and fair trade.
- The report also stresses that India's State governments are critical so, in attracting
 investment, the states and the centre have important roles to play in enacting strategic
 policy reforms.
- The report highlighted that **India is aiming to play a greater role in manufacturing supply chains** through its self-reliant campaign.

Recommendations by UK India Business Council





- Build a Strategy for the Future, Taking a Long-Term View
 - It is vital that the Government of India and State Governments adopt policies and approaches designed to win in the future.
- India should Become Increasingly Open to Free and Fair Trade
 - India should attract investors due to its strengths rather than by using tariffs as a tool to push international businesses to invest and make in India.
- Focus on Developing and Supporting Innovators
 - India should develop an innovator-friendly intellectual property policy and enforcement regime.
- Digital and Data
 - India should continue to harness and actively invest in the opportunities that AI, digital technology and data present to achieve its growth potential.
- Put Sustainability at the Heart of India's Trade and Investment Strategy
 - The countries and trade blocs are cognizant of this fact and as such are increasingly integrating sustainability and human rights into their trade agreements and strategies.

UK India Business Council's outlook on Aatmanirbhar Bharat

- India's Atmanirbhar Bharat mission should be viewed as an extension of PM Modi's "Make in India" campaign.
- It was launched in 2014 with the aim of **securing manufacturing investments** from domestic and international business.





- The self-reliant movement seeks to make **India a global supply chain hub** by boosting exports and reducing the country's dependence on imports.
- The Atmanirbhar Bharat campaign is about making India resilient to future supply chain disruptions and reducing its dependence, particularly at times of crisis, on other countries.
- The self-reliant campaign is based on **five pillars**:

Concerns expressed for Aatmanirbhar Bharat

- It has been expressed by domestic and international businesspeople, politicians, and
 economists that being "self-reliant" could be regarded
 as protectionist and isolationist.
- It was also pointed out that some of the reforms are in **continuation to earlier measures**, which would have taken place even without the COVID-19 pandemic.





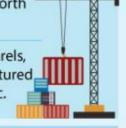


R



In 2020 India exported **\$7.77bn** worth of goods to the UK.

Major export items include machinery, apparels, and pharmaceutical products, natural or cultured pearls, electrical machinery & equipment etc.





India's garment export to UK: \$1.12bn in 2020 Pays 9.40% tax for apparel export Bangladesh exported garments to UK: \$3.17bn in FY 2019-20 Pays 'zero' duty as an LDC



"Such a scenario will be disadvantageous for us since UK is the third large export destination for Bangladesh's apparel products,"

Faruque Hassan BGMEA president on the FTA

UK India Business Council

- It is a **membership-based, non-profit organisation** founded in 2007 to foster trade and business relations between the United Kingdom and India.
- It supports **businesses with the insights, networks, policy advocacy, services, and facilities** needed to succeed in the UK and India.
- Its headquarters are located in **London (United Kingdom).**
- It is a sister organisation to the **UK-ASEAN Business Council**.
- It is the sole accredited UK Government Overseas Business Network
 Initiative provider for India.





2.15 OECD/G20 INCLUSIVE FRAMEWORK ON BASE EROSION AND PROFIT SHIFTING (BEPS)

Recently, India has announced its joining under OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS).

OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS)

- It is a **tax deal** which consists of two components:
 - **Pillar One** which is about reallocation of additional share of profit to the market jurisdictions; and
 - **Pillar Two** consisting of minimum tax and subject to tax rules
- The framework brings together over 135 countries and jurisdictions to collaborate on the implementation of the BEPS Package.
- The BEPS package provides **15 Actions that equip governments with the domestic** and international instruments needed to tackle tax avoidance.

Significance of OECD/G20 Inclusive Framework on BEPS

- It allows interested countries and jurisdictions to work with OECD and G20 members
 on developing standards on BEPS related issues and review and monitor the
 implementation of the BEPS Package.
- It will actively monitor the implementation of all the BEPS Actions and reports annually to the G20 on this progress.
- All countries and jurisdictions joining the framework will participate in the review process, which allows members to review their own tax systems and to identify and remove elements that pose BEPS risks.





Reasons for India joining OECD/G20 Inclusive Framework on BEPS

- The **principles underlying the solution** vindicates India's stand for a:
 - Greater share of profits for the markets;
 - Consideration of demand side factors in profit allocation;
 - Need to seriously address the issue of cross border profit shifting; and
 - Need for subject to tax rule to stop treaty shopping
- It further noted that India is in favour of a consensus solution which is simple to implement and simple to comply.
- The solution should result in allocation of meaningful and sustainable revenue to market jurisdictions, particularly for developing and emerging economies.
- India will continue to be **constructively engaged for reaching a consensus based ready to implement solution** with Pillar one and Pillar two and contribute positively for the advancement of the international tax agenda.

Impact of OECD/G20 Inclusive Framework on BEPS on India

- The Pillar I seek to usher in a special purpose nexus rule and profit allocation formula for reallocating a part of super normal profits of the largest and most profitable multinational groups, amongst market countries like India and China.
- The outcome will have quantitative benefits since it will ensure India gets its fair share
 of corporate tax on earnings from massive market it provides to MNEs.
- The broader agreement reached on Pillar II solutions is the most significant step towards **ending the' race to the bottom'** that countries have indulged in for decades.
- A global Min tax rule will ensure level playing field for countries like India that
 offers massive market for MNEs without providing a tax safe harbor.





 It would have potential to significantly contain the practice of treaty shopping, whereby companies or individuals attempt to indirectly access the benefits of a tax treaty between two jurisdictions.

Base Erosion & Profit Shifting (BEPS)

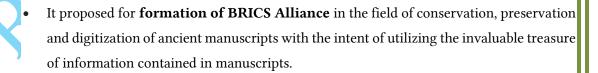
- In September 2013, the G20 Leaders endorsed the ambitious and comprehensive BEPS
 Action Plan, developed with OECD members.
- It refers to **tax planning strategies used by multinational enterprises** that exploit gaps and mismatches in tax rules to avoid paying tax.
- It is of major significance for developing countries due to their heavy reliance on corporate income tax, particularly from multinational enterprises.

2.16 6th BRICS CULTURE MINISTERS

Recently, the Minister of State (I//C) for Culture and Tourism had hosted **6th BRICS Culture Ministers' Meeting.**

Highlights

- It called for advancement and expansion of cultural activities amongst BRICS countries under the theme Bonding and Harmonizing Cultural Synergy.
- It emphasized on collaborations in the field of online exchange of cultural experiences on knowledge of tangible and intangible heritage amongst BRICS countries.







- It highlighted the need to protect the tangible and intangible cultural heritage through mutual help and support within the BRICS framework in addition to the compliance of prevailing UNESCO Conventions.
- It was agreed upon to strengthen and enhance cultural cooperation amongst
 BRICS Nations in the fields of museums, art galleries, theatre, and libraries and promote
 use of modern technologies.

BRICS

- It is an informal group of states comprising the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa.
 - It was the **Russian side that initiated** the creation of BRICS.
- In 2006, the **first BRICS Ministerial Meeting** was held at the proposal of Russian President Vladimir Putin on the margins of a UN General Assembly Session in New York.
 - In 2009, Yekaterinburg hosted the first BRIC Summit.
- BRICS countries are influential members of leading international organisations and agencies, including the UN, the G20, the Non-Aligned Movement and the Group of 77.
 - The **Russian Federation** is a member of the Commonwealth of Independent States, the Collective Security Treaty Organisation and the Eurasian Economic Union.
 - Russia, India and China are members of the Shanghai Cooperation
 Organisation and the Asia Pacific Economic Cooperation.
 - Brazil is a member of the Union of South American Nations, MERCOSUR and the Community of Latin American and Caribbean States.





- The **Republic of South Africa** is a member of the African Union and the Southern African Development Community.
- India is a member of the South Asian Association for Regional Cooperation and BIMSTEC.

Importance of BRICS for India

- The one of the factors behind the **persistence of international institutions** is because of "sunk costs" i.e. efforts expended to set up an institution that cannot be recovered and binding the actors involved in setting it up permanently.
 - New Delhi has often equated BRICS with its participation in other "Western-led" groupings such as the Quad, in order to signal to domestic constituencies that its commitment to strategic autonomy remains intact.
 - The "cost" India would pay from dissolving the BRICS is far higher than simply playing along, despite its diminishing dividends from participation in that grouping.
- The BRICS also **allows India and China to modulate their rivalry** within the setting of a small grouping, even when bilateral relations remain rocky.
 - The groupings like the BRICS and the SCO afford both India and China the opportunity to "decouple" their strategic contest from the other dimensions of the relationship.
- BRICS provides India a **transcontinental reach** by virtue of Brazil and South Africa's presence.
- India is a **proudly revisionist power** when it comes to the extant structure of international organizations and the United Nations system.





It continues to maintain that the **international system does not recognize the country's economic and political heft** and demands top-down reform, beginning with the U.N. Security Council (UNSC) where it seeks permanent membership.

2.17 INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

Recently, the 7th edition of the **Indian Ocean Naval Symposium (IONS)** was hosted by the French Navy at La Reunion in Italy.

Indian Ocean Naval Symposium (IONS)

- It was **conceived by the Indian Navy** in 2008.
- It seeks to enhance maritime cooperation among Navies of the littoral states of the IOR by providing an open and inclusive forum for discussion of regionally relevant maritime issues.
- The chairmanship of IONS has been held by India (2008-10), UAE (2010-12), South Africa (2012-14), Australia (2014-16), Bangladesh (2016-18) and Islamic Republic of Iran (2018-21).
- It holds **biennial meetings** among the littoral states of the Indian Ocean region.

Objectives of Indian Ocean Naval Symposium (IONS)

- It endeavours to generate a flow of information between naval professionals that
 would lead to common understanding and possibly cooperative solutions on the way
 ahead.
- It acts as a **security construct** for the Indian Ocean region.
- It also conducts numerous other activities like workshops, essay competitions and lectures to promote its objective.





Members of Indian Ocean Naval Symposium (IONS)

- South Asian Littorals: Bangladesh, India, Maldives, Pakistan, Seychelles, Sri Lanka and United Kingdom (British Indian Ocean Territory)
- West Asian Littorals: Iran, Oman, Saudi Arabia and United Arab Emirates
- East African Littorals: France (Reunion), Kenya, Mauritius, Mozambique, South Africa, and Tanzania.
- South East Asian and Australian Littorals: Australia, Indonesia, Malaysia, Myanmar,
 Singapore, Thailand and Timor-Leste.

Observers: China, Germany, Italy, Japan, Madagascar, the Netherlands, Russia and Spain.

2.18 INEQUALITY REPORT 2021: INDIA'S UNEQUAL HEALTHCARE STORY

Recently, the **Oxfam India** has released the 2021 edition of the **India Inequality Report.**

• It provides a **comprehensive analysis of the health outcomes** across different socioeconomic groups to gauge the level of health inequality that persists in the country.

Highlights

Health Inequalities

- It stated that India's low spending on public healthcare systems and focus
 on supporting private healthcare has led to serious inequalities in access to
 healthcare.
- It highlighted that the states that have for the past few years been reducing inequalities, such as inequalities to access to health between the general category and SC and ST populations, have less confirmed cases of COVID.





- It also highlighted that the **states that have had higher GDP expenditure** on health have higher recovery rates of COVID cases.
- It stated that those in higher income brackets, and with access to health infrastructure, had to face less visits to hospitals and Covid centres than those belonging to lower income groups.

'S HEALTHCARE UNDER ₹1 of every ₹6 spent on hospitalisation came through borrowing 5 beds per 10,000 ersons (down from 9 per 10,000 as per 2010 Human velopment Report) 1 govt allopathic doctor for every 10,189 people (as er National Health Profile, 2017) cket health expenditure ■ 1 state-run hospital for every 90,343 people HOSPITAL BEDS PER THOUSAND POPULATION Bangladesh 0.870.98 Mexico Chile (least among BRICS nations) (Source: Oxfam report)

- It found out that people belonging to lower income groups also faced five times
 more discrimination on being found Covid-positive than those in higher income
 groups.
- It highlighted that India's low spending on public healthcare has left the poor and marginalized with two difficult options i.e. suboptimal and weak public healthcare or expensive private healthcare.

Child Immunization

- The rate of immunization of girls continues to be below that of the male child.
- The **immunization of children in urban areas is more** than those in rural areas.





- The immunization of SCs and STs is behind that of other caste groups.
- The **child immunization of the high-wealth quintile group is much higher** than that of low-wealth quintile.

Health Status of Women

- The percentage of mothers who have **received full antenatal care declined** from 37 percent in 2005-06 to 21 percent in 2015-16.
- The **full antenatal care for urban areas is close to two times** that of rural areas, and immunization among Muslims the lowest i.e. lower than the SC/ST populations.

Recommendations under India Inequality Report 2021

- The right to health should be enacted as a fundamental right that makes it
 obligatory for the government to ensure equal access to timely, acceptable, and affordable
 healthcare of appropriate quality.
- The free vaccine policy should adopt an inclusive model to ensure that everyone, irrespective of their gender, caste, religion or location i.e. people living in hard-toreach areas, gets the vaccine without any delay.
- Increase **health spending to 2.5 percent of Gross Domestic Product (GDP)** to ensure a more equitable health system in the country.
- Regions with higher concentration of marginalized population should be identified
 and public health facilities should be established, equipped and made fully functional as
 per the Indian Public Health Standards (IPHS).
- Institutionalize a centrally-sponsored scheme that earmarks funds for the provision
 of free essential drugs and diagnostics at all public health facilities.

2.19 INDIAN, RUSSIAN NAVIES CONCLUDE EXERCISE INDRA NAVY IN BALTIC SEA





Recently, the **12th edition of exercise INDRA NAVY** was held in the Baltic Sea from 28 to 29 July 2021.

Exercise INDRA NAVY

- It is a biennial bilateral maritime exercise between Indian Navy and Russian Navy.
- It was **initiated in 2003.**
- It epitomises the **long-term strategic relationship** between the two navies.
- It aims to **consolidate inter-operability built up by the two Navies** over the years and also to enhance understanding and procedures for multi-faceted maritime operations.

INS Tabar

- It is a **Talwar-class stealth Frigate** built for Indian Navy in Russia.
- It is **equipped with a versatile range of weapons and sensors** and is among the earliest stealth frigates of the Indian Navy.
- It is part of the Indian Navy's Western Fleet, which is based at Mumbai under the Western Naval Command

2.20 CUTLASS EXPRESS 2021: INDIAN NAVY STEPS UP ENGAGEMENT IN WESTERN INDIAN OCEAN

Recently, the Indian Naval Ship (INS) Talwar is participating in the Cutlass Express 2021 (CE 21) Exercise.

Cutlass Express Exercise

• It is an **annual maritime exercise** conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.





- It is designed to improve regional cooperation, maritime domain awareness and information sharing practices to increase capabilities between the U.S., East African and Western Indian Ocean nations.
- It is sponsored by U.S. Africa Command and led by U.S. Naval Forces Europe-Africa, U.S. Sixth Fleet.
- The CE 21 is being **conducted in Kenya**.
- The CE 21 leverages the recently adopted Jeddah Amendment to the Djibouti Code of Conduct, which 14 nations are signatories.
- It aims to counter illicit maritime activity in the Western Indian Ocean.
- It assesses and improves combined maritime law enforcement capacity, promotes national and regional security in East Africa.
- It is one of three U.S. Naval Forces Europe-Africa/U.S. Sixth Fleet -facilitated regional exercises undertaken to provide African forces and international partners with collaborative opportunities on comprehensive maritime security concerns.
- The participating nations in Cutlass Express 2021 include Comoros, Djibouti, Georgia, India, Kenya, Madagascar, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Sudan, Tanzania, United Kingdom, and the United States.

INS Talwar

- The Talwar-Class guided missile frigate is a modified Krivak III-Class frigate in service with the Indian Navy.
- It is built by **Baltiysky Zavod**, the frigate supports naval forces during air, surface and sub-surface missions.
- It is used to **detect and destroy enemy submarines** and other surface ships.
- It is also **used to detect and destroy enemy submarines** and other surface ships.





- The new frigates are armed with eight BrahMos supersonic cruise missiles instead of 3M-54E Klub-N anti-ship missiles.
- It is fitted with a **Trebovaniye-M combat information and control system.**
- It manages and controls all weapons on board, develops combat missions depending on the situation analysis and transfers the data to the weapon systems.

2.21 NAVIES OF INDIA, INDONESIA UNDERTAKE COORDINATED PATROL IN INDIAN OCEAN

Recently, the 36th edition of India-Indonesia Coordinated Patrol (CORPAT) between the Indian Navy and the Indonesian Navy began.

India-Indonesia Coordinated Patrol (CORPAT)

- It is a biannual coordinated patrol exercise along the International Maritime Boundary Line (IMBL).
- The CORPAT assisted in improving the interoperability between the two
 navies and contributed to strengthening Navy to Navy cooperation.
- India and Indonesia have been carrying out Coordinated Patrols along the
 International Maritime Boundary Line (IMBL) twice a year since 2002.
- It was launched with an aim of keeping this vital part of the Indian Ocean Region secure for commercial shipping, international trade and conduct of legitimate maritime activities.
- CORPATs help in building interoperability between navies, and facilitate the
 institution of measures to prevent and suppress Illegal Unreported Unregulated
 (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.





INS Saryu

- It is the lead ship of the indigenous Naval Offshore Patrol Vessel (NOPV) Project to be inducted into the Indian Navy.
- It is designed and built by **Goa Shipyard Limited**.
- It is aimed at meeting the increasing ocean surveillance and patrolling requirements of the Indian Navy.
- The primary role of the ship is to undertake EEZ surveillance, anti-piracy patrols,
 fleet support operations, provide maritime security to off shore assets and carry out escort operations for high value assets.

3.1 BUILDING RESILIENT HEALTH SYSTEMS

In the recently-concludedG-7 meeting, the wealthiest democracies reaffirmed their commitment to end the current pandemic and strengthen future health resilience.

Health policy and systems research is a complex field: Understanding the relationships between health policies and health systems, as well as the broader determinants of health, requires the best minds from economics, sociology, anthropology, political science, medicine and public health.

Health is a priority of the 2030 Sustainable Development Goals (SDGs): It is reflected by the comprehensive health goal of SDG 3: "Ensure healthy lives and **promote well-being** for all at all ages".

Bridge disparate health and development agendas: The concept of resilience helps in coordinating health and development agendas such as universal health coverage, the Global Health Security Agenda, and the Sustainable Development Goals by lending fresh impetus to the need to invest in health systems.





❖ It identifies the immediate and longer term payoffs of well-functioning, responsive, and adaptable health systems and highlights the unacceptable costs of inaction.

Occurrence of catastrophic events: The events occurring over the last decade have highlighted the need to understand how to govern health systems in the face of extreme and largely unforeseen disturbances or shocks

High out-of-packet expenditure: The introduction of a contributory social health insurance scheme could help in reducing out-of-pocket payment for primary care services.

IMPORTANCE OF BUILDING RESILIENT HEALTH SYSTEMS

Exploring the concept of resilient health systems: The resilience emphasises the functions health systems need to respond and adapt to health shocks.

❖ It will aim at introducing a dynamic dimension into more static health system models which can help the system cope with surges in demand and adapt to changing epidemiology and population expectations of care.

Ensure state-society partnership: The stronger mechanisms for state-society partnerships allow government officials to weave the experience, expectations and capabilities of affected people into the containment strategy for a more powerful and empathetic response.

Inclusion of diverse healthcare providers: It can be done through consultation and contracting with private sector providers, including faith based provider.

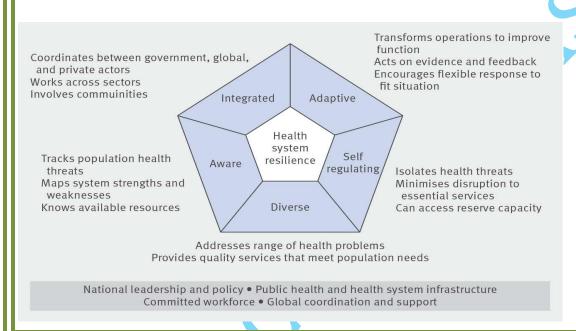
The involvement of people and communities in crafting a response depends on and is a potential means of strengthening government accountability to its citizens.

Shifting from curative to preventative healthcare systems: The resilient-centered health starts at an individual level by **empowering citizens to own and manage their health** as much as possible.





Ensuring long-term stability of resource: It refers to the capacity to protect or generate the necessary and adequate financial resources, as well as physical, human and information resources to address any upcoming major challenges.



3.2 SOBERANA 2, CUBA'S COVID-19 VACCINE

Recently, Cuba has said that the **Covid-19 vaccine Soberana 2** is about 91 percent effective against symptomatic Covid-19 cases as demonstrated in its late stage clinical trials.

Soberana 2 Vaccine

- It is a homegrown vaccine of Cuba.
- It is a conjugate vaccine in which the virus antigen, the receptor-binding domain (RBD), is chemically bound to the tetanus toxoid.
- It is found effective when delivered with a booster shot of Soberana Plus.
- Cuba will become the first Latin American country to manufacture and produce a vaccine against Covid-19 after approval.





- It is delivered through a **three dose regimen** i.e. two shots of Soberana 2 and one of Soberana Plus taken in a 0-28-56 day regimen.
- It is developed by the Finlay Institute in partnership with the Centre for Molecular Immunology and the National Biopreparations Centre.
- It is a type of **protein vaccines** which implies that it is made up of a **protein derived from the virus**, which then binds to human cells to trigger an immune response.
- It is the only kind of "conjugate vaccine" that combines the virus's receptor-binding domain with a deactivated form of tetanus in order to boost the immune response.

3.3 IFSCA SETS UP EXPERT GROUP TO SUGGEST ROAD MAP FOR LONGEVITY FINANCE HUB

Recently, the International Financial Services Centres Authority (IFSCA) has constituted an Expert Committee to develop a Longevity Finance Hub in GIFT IFSC.

Highlights

- The committee is tasked to recommend approach towards development of Longevity
 Finance Hub and provide road map for the same.
- It is being co-chaired by **Ms. Kaku Nakhate**, President and Country Head (India), Bank of America, and **Mr. Gopalan Srinivasan**, Ex-CMD, New India Assurance Company Limited.
- It comprise of leaders from the entire longevity finance ecosystem including from areas such as banking, insurance, wealth management, FinTech, legal, compliance and management consultancy.

International Financial Services Centres Authority (IFSCA)?

- It has been established in 2020 under the International Financial Services Centres
 Authority Act, 2019.
- It is **headquartered at GIFT City**, **Gandhinagar** in Gujarat.





- It is a unified authority for the development and regulation of financial products, financial services and financial institutions.
- The GIFT IFSC is the maiden international financial services centre in India.
- Its objective is to **develop a strong global connect and focus on the needs of the Indian economy** as well as to serve as an international financial platform for the entire region and the global economy as a whole.

Longevity Derivatives?

- They are a class of securities that provide a hedge for parties exposed to longevity
 risks through their businesses, such as pension plan managers and insurers.
- These derivatives are **designed to deliver increasingly high payouts** as a selected population group lives longer than originally expected or calculated.
- The derivatives are securities that **derive their value from price fluctuations** in an underlying asset or group of assets.
- They are designed to offer some **protection against the risks by enabling investors** to make money on the side from people living longer.

3.4 'FIT FOR 55: NEW EUROPEAN CLIMATE LAW

Recently, the **European Commission** has announced a plan called **'Fit for 55 Package'** for all its members against climate change.

Fit for 55 Package?

- It calls for 27 member states of European Commission to cut their output of greenhouse gases by 55% by 2030, compared with 1990 levels.
- Its target is **more aggressive than that of the United States**, which committed to reduce emissions by 40% to 43% over the same period, but **behind Britain**, **which pledged a 68% reduction**.





It includes a contentious plan called "Carbon Border Adjustment Mechanism" which
would impose tariffs on imported products based on the greenhouse gas emissions associated
with them.

Impact of 'Fit for 55' Package

- The European Union's plan to cut its greenhouse gas emissions by more than half by the end of the decade will touch almost every industry in the trade bloc.
- The transition will be painful for some consumers and companies by raising the cost of a wide variety of goods and services.
- The proposals could **reshape polluting industries** like steelmaking, which directly employs 330,000 people in the European Union.

Impact on Automakers

- Most automakers have announced plans to shift to electric vehicles, but many
 have resisted putting an expiration date on the fossil-fuel powered vehicles, which
 still generate the most profits.
- The European Commission plan would effectively require all new cars to be emissionsfree by 2035, removing any flexibility for companies to continue selling some gasoline or diesel vehicles.
- The public funds will be used to help build charging stations every 60 kilometers, or 36 miles, on major highways.
- The commission will help finance a network of hydrogen fueling stations, benefiting
 companies that are planning to build long-haul trucks that run on fuel cells that convert
 hydrogen to electricity.

Impact on Airline

• The aircrafts are **major producers of carbon dioxide emissions** but also difficult to convert to emission-free operation.





Under the new proposal, the airlines would be compelled to begin mixing synthetic
fuel with the fossil fuels they now use, and they will no longer receive tax breaks on
fossil fuels.

Impact on Shipping

- The deal singles out companies that ship cargos by water, making them pay more for the
 emissions they generate to encourage their transition to cleaner energy.
- The shipping industry lobbyists have already complained that it was unclear how the plan
 would be applied and which shipping routes would be affected.

Impact on Heavy Industry

- The plan would raise the cost of polluting by tightening the European Trading System, which compels companies to effectively pay for the dangerous carbon dioxide they release.
- The anticipation of the changes has already helped **drive up the price of credits** by about 50%.
- The steelmakers have warned that the proposals could further erode their competitive
 advantage over producers in China and discourage the investment needed to shift to
 lower emissions.

Impact on Energy

- The electricity producers will be pushed to speed up the switch to wind, solar and hydropower from coal.
- The goal is to rise the figure electricity generation by renewables to 40% by 2030, largely by increasing the penalty that utility companies pay for power generated by fossil fuels.





3.5 US PRESIDENT JOE BIDEN TO DELIVER MAJOR POLICY SPEECH ON AFGHANISTAN UPDATE ON TROOP DRAWDOWN

Recently, the United States under President Joe Biden is finally set to **draw out the last of its boots on the ground** after 10 years of waging a war against the Taliban, and another 10 years of vows to withdraw from Afghanistan.

Highlights

- For Afghanistan: An emboldened Taliban insurgency is making battlefield gains, and prospective peace talks are stalled.
 - It is feared that once foreign forces are gone, Afghanistan will dive deeper into civil war.
- For the United States and its coalition partners: All combat troops and 20 years of accumulated war materiel will soon be gone.
 - The head of US Central Command will have authority until September 2021 to defend Afghan forces against the Taliban.
- **For India:** The prospects are largely uncertain as its relationship with the alternate regime is precarious, if not in complete tatters.
 - New Delhi, which has tacitly been supporting a West-installed democratic government against the Taliban rule is suddenly on unchartered plains.
 - India is the largest regional donor in Afghanistan, with pledges of around \$3 billion and the Taliban often attacks these foreign-backed projects such as power plants, highways and other such installations.

Road ahead for Afghanistan after US Withdrawal





- The US troops will **no longer be there to train or advise** Afghan forces inside Afghanistan.
- An unusually large US security contingent of 650 troops, based at the US Embassy compound, will protect American diplomats and potentially help secure the Kabul international airport.
- Turkey is expected to continue its current mission of providing airport security but
 the head of US Central Command will have authority until September 2021 to defend
 Afghan forces against the Taliban.
- It is also possible that the US military may be asked to assist any large-scale evacuation of Afghans seeking Special Immigrant Visas.
- The White House is concerned that Afghans who helped the US war effort and are thereby **vulnerable to Taliban retribution**, not be left behind.

Pakistan's ambitions in Afghanistan

- The nation which appears to have the maximum gain from the ensuing political and security instability is neighbourly Pakistan.
- Pakistan senses that it will be able to exercise a hold on Afghanistan's internal
 affairs with a pliant regime in power in Kabul.
- It hopes that its traditional strategy of keeping India out of any reckoning in Afghan
 affairs will bear fruition.
- The ISI would already be planning for out-of-work terrorists from Afghanistan to be redeployed for terrorist acts inside Jammu and Kashmir.

Indian foreign policy towards Afghanistan

 India's soft-power forays in Afghanistan have been widely appreciated except by Pakistan.





- India followed a consistent policy of non-interference in the internal affairs of
 Afghanistan and having generously provided humanitarian aid, infrastructural
 development in many fields, educational, medical, and power generation assistance.
- India has made it clear that any resolution of Afghanistan must be "Afghan-led, Afghan-ruled, and Afghan-controlled".
- India must open up channels of communication with moderate elements in the Taliban with the likely changing power equations in Kabul.
- India should follow not only a policy which furthers its national interests but must also have moralistic and human overtones to it.
- India should strongly strive for a UN peacekeeping force to be stationed in Afghanistan which ensures the prevention of a civil war from breaking out there.
- India must also endeavour to get Russia, Iran, and the US on the same page to
 conceive and implement a suitable regional policy for the strife-torn Afghanistan.
- India must continue with its all-encompassing humanitarian assistance to the Kabul government.

3.6 WHITE FLAG CAMPAIGN IN MALAYSIA

Recently, some residents of low-income families in Malaysia have started waving white flags as part of the so-called "White Flag Campaign" or the #benderaputi (white flag) movement.

White Flag Movement

• It aims to **convey distress about the financial crunch** the low-income families have had to deal with amid the lockdowns due to Covid-19.





- The families that are **facing hunger or need any other kind of assistance** are encouraged to wave a white flag or put a piece of white cloth outside their homes to signal that they need help.
- The idea is that by spotting the white flag, neighbours and good Samaritans can reach them.
- The **Bendera Putih app or the Sambal SOS app** provides the map of Malaysia where active food banks are marked and helps people easily track down food banks.

Reasons for use of White Flags

- The world over, white flags are used as a **symbol of surrender or truce**.
- The phrase 'white flag' has also found its way into the Cambridge dictionary, which
 defines it as "a flag that is waved to show that you accept defeat or do not intend
 to attack".
- In some Central American countries such as El Salvador, Guatemala, and Honduras "white flags have appeared all over the social terrain".
 - It depicted indictments of a failed political and economic system whose primary effect for common people has been enduring a life of dehumanization, precarity, and marginalization.

3.7 ETHIOPIA RESUMES FILLING NILE MEGA-DAM RESERVOIR, ANGERING

Recently, Egypt has said that it had received an official notice from Ethiopia that it had started the **next phase of filling of Grand Ethiopian Renaissance Dam (GERD).**

- The Nile, Africa's longest river, has been at the **center of a decade-long complex dispute** involving several countries that are dependent on the river's waters.
 - At the forefront of this dispute are Ethiopia and Egypt, with
 Sudan having found itself dragged into the issue.





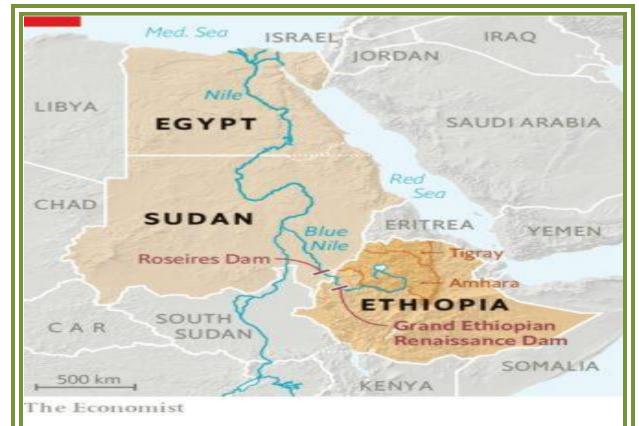
- The main waterways of the Nile run through Uganda, South Sudan, Sudan and Egypt, and its drainage basin runs through several countries in East Africa, including Ethiopia.
- The construction of the dam was **initiated in 2011 on the Blue Nile tributary of the river** that runs across one part of Ethiopia.
- The Nile is a **necessary water source** in the region and Egypt has consistently objected to the dam's construction, saying it will impact water flow.

Conflict over Grand Renaissance Dam Hydropower Project

- Given the dam's location on the Blue Nile tributary, it would **potentially allow Ethiopia to gain control** of the flow of the river's waters.
- **Egypt lies further downstream** and is concerned that Ethiopia's control over the water could result in lower water levels within its own borders.
- Egypt proposed a **longer timeline for the project over concerns** that the water level of the Nile could dramatically drop as the reservoir fills with water in the initial stages.
- Sudan's location between Egypt up north and Ethiopia down south has caused it to become an **inadvertent party to this dispute**.







About Grand Ethiopian Renaissance Dam (GERD)

- It was formerly known as the Millennium Dam and sometimes referred to as Hidase
 Dam.
- It is a gravity dam which is situated on Blue Nile River in Benishangul-Gumuz region of Ethiopia.
- The reservoir and dam will offer major benefits to **Ethiopia**, **Egypt and Sudan**.
- After completion, it will be **Africa's biggest hydroelectric power plant**.
- It is a **bone of contention** between Egypt and Ethiopia.

Nile River





- It **empties into Mediterranean Sea** after traveling for over 6,600 kilometers (4,100 miles).
- It flows from **south to north** through eastern Africa.
- It begins in the rivers that flow into Lake Victoria (located in modern-day Uganda, Tanzania, and Kenya).
- In addition to Egypt, the Nile runs through or along the border of 10 other African countries, namely, Burundi, Tanzania, Rwanda, the Democratic Republic of the Congo, Kenya, Uganda, Sudan, Ethiopia and South Sudan.
- Its three main tributaries are the White Nile, the Blue Nile and the Atbara.

Blue Nile River

- It is a **river originating in natural springs** above **Lake Tana** in Ethiopia.
- Along its upper reaches in Ethiopia the river is called the **Abbai**.
- The Blue Nile joins the White Nile at Khartoum, Sudan, and, as the Nile, flows through Egypt to the Mediterranean Sea at Alexandria.

3.8 CHILD SOLDIER RECRUITER LIST

Recently, the United States US State Department has released the Child Soldier Recruiter List.

The countries which have been added to the annual TIP list are Pakistan, Turkey,
 Afghanistan, Myanmar, Democratic Republic of the Congo, Iran, Iraq, Libya,
 Mali, Nigeria, Somalia, South Sudan, Syria, Venezuela and Yemen.

Child Soldier Recruiter List

 It identifies foreign governments having government-supported armed groups that recruit or use child soldier.





- It is a designation that could result in restrictions on certain security assistance and commercial licensing of military equipment.
- The US Child Soldiers Prevention Act (CSPA) requires the publication in the annual Trafficking in Persons (TIP) report.

Child soldier

- The recruitment or use of children below the age of 15 as soldiers is prohibited by both the UN Convention on the Rights of the Child (CRC) and the additional protocols to the Geneva Conventions.
- It is considered a war crime under the Rome Statute of the International Criminal Court.
- The **Optional Protocol to the CRC** on the involvement of children in armed conflict further prohibits kids under the age 18 from being compulsorily recruited into state or non-state armed forces or directly engaging in hostilities.

Legislation of Child Soldier

- The United States Congress adopted the CSPA in 2008, as an amendment to the William Wilberforce Trafficking Victims Protection and Reauthorization Act of 2008.
- It prohibits the US government from providing military assistance to countries
 identified as having government or government-supported forces that recruit and use
 child soldiers.
- It requires the **US Secretary of State** to designate portions of the annual **Human Rights Report** to the issue of child soldiers.
- It allows the President to issue a "national interest waiver" for countries even if they are in violation of the Act.





• The **President has the authority to provide assistance** if that country has taken "steps" to come into compliance with the law.

UN Convention on the Rights of the Child (CRC)

- The CRC was adopted on November 20, 1989 and entered into force on September 2, 1990.
- 193 countries have ratified the CRC.
- The CRC requires state parties to "take all feasible measures" to ensure that children under 18 are not engaged in direct hostilities.
- It further prohibits the state parties from recruiting children under 15 into the armed forces.
- In 2000, the UN Committee on the Rights of the Child adopted the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict.
- The **Optional Protocol raises this age to 18** while the CRC requires states to refrain from using children under 15 in direct hostilities.

What are prohibited for countries in the list?

- The following types of security assistance are prohibited for countries that are in the list:
 - Licenses for direct commercial sales of military equipment
 - Foreign military financing for the purchase of defense articles and services, as well as design and construction services
 - International military education and training
 - Excess defense articles





- Peacekeeping operations
- The countries will also **not be eligible for the US Department of Defence's "train and equip"** authority for building the capacity of foreign defense forces.

3.9 ARCTIC'S 'LAST ICE AREA'

Recently, the researchers note that in August 2020 the area where the **Last Ice Area (LIA)** is located experienced a record low concentration of sea ice.

Arctic's Last Ice Area

- It is located north of Greenland.
- It spans more than 1,200 miles (2,000 kilometers), reaching from Greenland's northern coast to the western part of the Canadian Arctic Archipelago.
- The National Geographic noted that while climate projections forecast the total disappearance of summer ice in the Arctic by the year 2040.
 - The only place that would be able to withstand a warming climate would be that area of ice which is called the "Last Ice Area".
- The World Wildlife Fund (WWF) notes that climate change is shrinking the extent
 of Arctic summer sea ice, which is not only important for animals but also the local
 Inuit communities.
- The extent of summer sea ice projected for 2040 and beyond, as viewed from the north pole.

Importance of Arctic's Last Ice Area

 It was thought to be able to help ice-dependent species as ice in the surrounding areas melted away.





 The area is used by polar bears to hunt for seals who use ice to build dens for their offspring.

Reasons for low concentration of sea ice

- The researchers noted that the sea ice concentration was at a record low of 50 percent.
- The researchers found out that about 80 percent of thinning can be attributed
 to weather-related factors such as winds that break up and move the ice around.
- The remaining 20 percent can be attributed to longer-term thinning of the ice due to global warming.

3.10 ISTANBUL CONVENTION ON VIOLENCE AGAINST WOMEN

Recently, the **Turkey's controversial exit** from **Istanbul Convention on Violence against Women** has received severe criticism from various quarters and has led to protests across the country.

Istanbul Convention on Violence against Women

- It was established by the **Council of Europe**.
- It is a human rights treaty, with the aim to prevent and prosecute all forms of violence against women,.
- It aims to promote gender equality and ensure protection and rehabilitation of women who are victims of violence.
- It was **opened for ratification in 2011** and **Turkey became the first country to ratify** the Istanbul convention after 34 countries signed this treaty.
- In 2011, the **treaty's original signatories** were Austria, Finland, France, Germany, Greece, Iceland, Luxembourg, Montenegro, Portugal, Slovakia, Sweden, and Turkey.





• It has been **signed by all EU Member States**.

Objectives of Istanbul Convention on Violence against Women

- The state has a responsibility to prevent all forms of violence against women, protect those who experience it and prosecute perpetrators.
- The state must **promote equality between women and men** and prevent violence against women by encouraging mutual respect or non-violent conflict resolution.
- The state must investigate allegations of violence and prosecute perpetrators.
- The state must ensure that **victims can claim compensation** from the offender and must award adequate compensation itself if it cannot be covered from other sources.
- The state must ensure a **coordinated approach among all relevant agencies**, civil society organisations and other stakeholders to support those who experience violence.

Reasons for Turkey's withdrawal from Istanbul Convention

- The officials of Turkey's nationalist party claimed that the convention demeans traditional family structure, promotes divorces and encourages acceptance of LGBTQ in the society.
- They argued that the Istanbul Convention, originally intended to promote women's rights, was hijacked by a group of people attempting to normalize homosexuality.

Conditions of Women in Turkey

- Violence against women and honour killings are persistent in Turkey.
- Turkey ranks 133 out of 156 countries in the Global Gender Gap report 2021.
- According to UN women data, 38 per cent of women in Turkey face violence from a
 partner in their lifetime.





A report by KAGIDER (Women Entrepreneurs Association of Turkey) states
that violence against women and femicides were concerningly high even before
Turkey ditched the convention.

3.11 GENDER SELF-IDENTIFICATION

Recently, the Spanish government has approved the first draft of a bill that would **allow anyone over the age of 14 to legally change gender** without a medical diagnosis or hormone therapy.

Gender Self-Identification or 'Self ID'

- It is a concept that a person should be allowed to legally identify with the gender of their choice by simply declaring so, and without facing any medical tests.
- It has been a long held demand of trans-right groups around the world, including in India, as **prejudice against trans-people remains rampant**.

Arguments against gender self-identification

- Some feminist and gay-rights groups insist that such a law could endanger women and cause more gay teenagers to be told that they might be Trans.
- The feminist forums that believe that sex is not something which can be chosen have
 insisted that allowing self-identification could put at risk all laws that specifically prevent
 discrimination against women.

Legality of Gender Self-Identification or 'Self ID'

- As per the advocacy group ILGA (the International Lesbian, Gay, Bisexual, Trans and Intersex Association), 15 countries around the world recognise self-ID.
 - It includes Denmark, Portugal, Norway, Malta, Argentina, Ireland, Luxembourg, Greece, Costa Rica, Mexico (only in Mexico City), Brazil, Colombia, Ecuador and Uruguay.





- In Denmark, the law requires a six-month reflection period for formalizing gender change.
- In Portugal, changing one's gender for the second time **requires going to court.**
- In Hungary, a newly adopted law effectively bans all content about homosexuality
 and gender change from school curriculum and television shows for children under
 the age of 18.

Laws for declaration of gender in India

- In India, the rights of transgender persons are governed by the Transgender Persons (Protection of Rights) Act, 2019 and the Transgender Persons (Protection of Rights) Rules, 2020.
- Under the Rules, an application to declare gender is to be made to the District Magistrate.
- The parents can also make an application on behalf of their child under the Transgender Persons (Protection of Rights) Rules, 2020.
- As per the Rules, state governments have also been directed to constitute welfare boards for transgender persons to protect their rights and interests, and facilitate access to schemes and welfare measures.

3.12 GLOBAL CYBERSECURITY INDEX (GCI) 2020

Recently, the **International Telecommunication Union (ITU)** has released the **Global Cybersecurity Index (GCI) 2020**.

Key Highlights of Global Cybersecurity Index (GCI) 2020

The US was ranked on the first spot, indicating highest commitment to cybersecurity.





- It was followed by the UK sharing the second spot with Saudi Arabia.
- Estonia was ranked third, South Korea, Singapore and Spain shared the fourth spot, Russia, United Arab Emirates and Malaysia shared the fifth spot and Lithuania came in sixth followed by Japan, Canada and France before India.
- Yemen, Vatican and Micronesia shared the last position in GCI 2020.
- China and Pakistan were ranked at 33 and 79, respectively.
- Republic of Korea and Singapore shared the top spot in the Asia Pacifica region followed by Malaysia, Japan and India.

Performance of India under Global Cybersecurity Index (GCI) 2020

- India improved its ranking from 47 and has entered the top 10 of a global cybersecurity ranking of countries.
- India secured the **4th spot** in the **Asia-Pacific region**.
- India is emerging as a global IT superpower, asserting its digital sovereignty with firm
 measures to safeguard data privacy and online rights of citizens.
- India scored a total of 97.5 points from a possible maximum of 100 points, to make
 it to the tenth position worldwide in the GCI 2020.

Global Cybersecurity Index (GCI) 2020

- It is a **composite index** produced, analysed and published by the **International Telecommunication Union (ITU)**.
- It is a trusted reference that **measures the commitment of countries to** cybersecurity at a global level.





- It was first launched in 2015 to measure the commitment of 193 ITU Member States
 and the State of Palestine to cybersecurity to help them identify areas of improvement.
- The ranking is based on **five pillars** i.e. legal measures, technical measures, capacity building measures, cooperation and organisational measures.
- It leverages the **capacity and expertise of different organizations** with the objectives of improving the quality of the survey, fostering international cooperation, and promoting knowledge exchange.

International Telecommunication Union (ITU)

- It is the United Nations specialized agency for information and communication technologies.
- It was founded in 1865 to:
 - Facilitate international connectivity in communications networks, they allocate global radio spectrum and satellite orbits;
 - Develop the technical standards that ensure networks and technologies seamlessly interconnect; and
 - Strive to improve access to ICTs to underserved communities worldwide.
- Its headquarters is in Geneva, Switzerland and it is also the oldest of all the UN Specialized Agencies.
- Its parent organization is **United Nations Economic and Social Council**.

3.13 WHAT MAKES NASA'S NEW SPACECRAFT NEA SCOUT SPECIAL?





Recently, NASA has announced that its new spacecraft, named **Near-Earth Asteroid (NEA) Scout**, has completed all required tests and has been safely tucked inside the **Space Launch System (SLS) rocket.**

Near-Earth Asteroid (NEA) Scout?



- It is a **small spacecraft**, about the size of a big shoebox.
- Its main mission is to fly by and collect data from a near-Earth asteroid.
- It will also be America's first interplanetary mission using a special solar sail propulsion.
- It will use stainless steel alloy booms and deploy an aluminum-coated sail measuring 925 square feet.
- The spacecraft will take about **two years to cruise to the asteroid** and will be about 93 million miles away from Earth during the asteroid encounter.

Working of Near-Earth Asteroid (NEA) Scout





- It is **equipped with special cameras** and can take pictures ranging from 50 cm/pixels to 10 cm/pixels.
- It can also process the image and reduce the file sizes before sending them to the earth-based Deep Space Network via its medium-gain antenna.
- The images gathered by NEA Scout will provide critical information on the asteroid's physical properties such as orbit, shape, volume, rotation, and dust & debris field surrounding it.

Reasons for studying Near-Earth Asteroid

- It could help us develop strategies for reducing the potential damage caused in the event of an impact.
- The scientists will use this data to determine what is required to **reduce risk**, **increase effectiveness**, and **improve the design and operations of robotic and human** space exploration.

Asteroids

- Asteroids are rocky objects that orbit the Sun, much smaller than planets. They are also called minor planets.
- Asteroids are divided into **three classes**.
 - First, those found in the main asteroid belt between Mars and Jupiter, which is estimated to contain somewhere between 1.1-1.9 million asteroids.
 - The second group is that of **trojans**, which are asteroids that share an orbit with a larger planet.
 - NASA reports the presence of Jupiter, Neptune and Mars trojans.





- In 2011, they reported an Earth Trojan as well.
- The third classification is Near-Earth Asteroids (NEA), which have orbits that pass close by the Earth.

3.14 CHINA FIRST HUMAN INFECTION CASE WITH MONKEY B VIRUS

Recently, China has reported the first human infection case with **Monkey B virus (BV)** after a Beijing-based veterinarian was confirmed with the same.

Monkey B Virus?

- The virus was **initially isolated in 1932**.
- It is an **alpha herpes virus enzootic** in macaques of the genus Macaca.
- B virus is the only identified old-world-monkey herpes virus that displays severe pathogenicity in humans.
- B virus is also commonly referred to as herpes B, monkey B virus, herpes virus simiae, and herpes virus B.
- It is caused by macaques, a genus of Old World monkeys that serve as the natural host.
- While the virus is transmitted by macaques, chimpanzees and capuchin monkeys can also become infected and die.

Transmission of Monkey B Virus

- It can be transmitted via direct contact and exchange of bodily secretions of monkeys.
- It has a **fatality rate of 70 per cent to 80 per cent.**
- Macaque monkeys commonly have this virus, and it can be found in their saliva, feces
 (poop), urine (pee), or brain or spinal cord tissue.





- The virus may also be found in cells coming from an infected monkey in a lab.
- B virus can **survive for hours on surfaces**, particularly when moist.
- Till date, only one case has been documented of an infected person spreading B virus to another person.

Impact of Monkey B Virus on Humans

- Humans can get infected if they are bitten or scratched by an infected monkey.
- Humans can get an infected monkey's tissue or fluid on broken skin or in eyes, nose, or mouth.
- The scratch or cut oneself on a contaminated cage or other sharp-edged surface or get exposed to the brain (especially), spinal cord, or skull of an infected monkey.

Symptoms

- The symptoms typically start within one month of being exposed to B virus, but could appear in as little as three to seven days.
- The first indications of B virus infection are typically flu-like symptoms such as fever and chills, muscle ache, fatigue and headache.
- The infected person may develop small blisters in the wound or area on the body that came in contact with the monkey.
- The other symptoms of the infection include **shortness of breath**, **nausea and vomiting**, **abdominal pain and hiccups**.
- The virus spreads to and causes **inflammation** (swelling) of the brain and spinal cord, leading to neurologic and inflammatory symptoms.

3.15 RUSSIA LAUNCHES NAUKA TO ISS



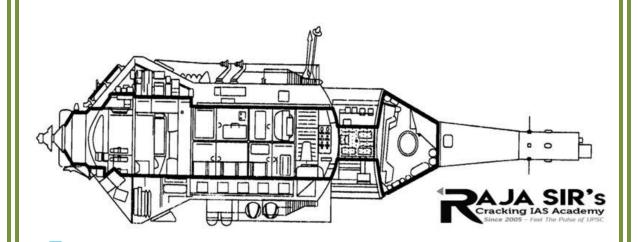


Russia successfully launched a long-delayed lab module for the International Space Station that is intended to provide more room for scientific experiments and space for the crew. A Proton-M booster rocket carrying the Nauka module lifted off from the Russian space launch facility in Baikonur, Kazakhstan.

Genesis

- The International Space Station is currently operated by NASA astronauts Mark Vande Hei, Shane Kimbrough and Megan McArthur; Oleg Novitsky and Pyotr Dubrov of Russia's Roscosmos space corporation; Japan Aerospace Exploration Agency astronaut Akihiko Hoshide and European Space Agency astronaut Thomas Pesquet.
- In 1998, Russia launched the station's first module, Zarya, which was followed in 2000 by another big module, Zvezda, and three smaller modules in the following years. The last of them, Rassvet, arrived at the station in 2010.

About Nauka



• The **navigational antennas and solar arrays** deployed properly after a flawless launch that set the module on an **eight-day journey** to the orbiting outpost.





- After a series of maneuvers, the 20-metric-ton (22-ton) module is set to dock at the International Space Station in automatic mode on 29 July 2021.
- The launch of Nauka, also called the Multipurpose Laboratory Module, had been repeatedly delayed because of technical problems. It was initially scheduled to go up in 2007.
- In 2013, experts found **contamination in its fuel system**, resulting in a long and costly replacement. Other Nauka systems also underwent modernization or repairs.
- Before Nauka docks at the station, one of the older Russian modules, the Pirs
 spacewalking compartment, will need to be removed and scrapped to free up room for
 the new module.
- Russian space controllers plan to perform the maneuver after they check and confirm that Nauka's systems operate properly and the module is ready for docking.
- Russian crewmembers on the station have done two spacewalks to connect cables in preparation for Nauka's arrival.
- Once Nauka docks at the station, it will require a long series of manuevers, including
 up to 11 spacewalks beginning in early September, to prepare it for operation.

3.16 LIVERPOOL REMOVED FROM WORLD HERITAGE LIST

The World Heritage Committee, holding its 44th session in Fuzhou and online, decided to delete the property "Liverpool – Maritime Mercantile City" (UK) from the World Heritage List, due to the irreversible loss of attributes conveying the outstanding universal value of the property.

 Liverpool – Maritime Mercantile City was inscribed on the World Heritage List in 2004 and on the List of World Heritage in Danger in 2012 following concerns about the proposed development of Liverpool Waters.





- The project has since gone ahead along with other developments both inside the site and
 in its buffer zone.
- The Committee considers that these constructions are detrimental to the site's **authenticity and integrity**.
- Liverpool's historic centre and docklands were inscribed for bearing witness to the
 development of one of the world's major trading centres in the 18th and 19th
 centuries.
- The site also illustrated pioneering developments in modern dock technology, transport systems and port management.
- Any deletion from the World Heritage List is a loss to the international community and to the internationally shared values and commitments under the World Heritage Convention.
- After the Elbe Valley in Dresden (Germany) and the Arabian Oryx Sanctuary (Oman), Liverpool is the third property to lose its World Heritage status.
- The International Council on Monuments and Sites, which advises UNESCO on the heritage list.

3.17 AKAMAI SUFFERS OUTAGE, TAKES HALF OF GLOBAL INTERNET DOWN

Global internet infrastructure company Akamai suffered an outage on 22 July 2021 night that lasted over an hour, taking down several online applications across India and overseas. This was the second major outage involving a delivery network in as many months that affected internet usage on a global scale.

Akamai?

Akamai is a global content delivery network (CDN) and cloud services
platform that is rented by online content and commerce services apps.





- On 22 July 2021, Akamai faced a disruption on its Edge DNS service that took down
 platforms such as Zomato, Paytm, parts of Amazon, Airbnb, PlayStation Network,
 Steam, Disney+Hotstar, etc for a short while.
- **Edge DNS** as a technology provides a shorter route for DNS, or domain name services, between a company's servers and its users, thereby drastically decreasing resolution times and providing low latencies.
- In June, a major issue with the content delivery network of American cloud computing services provider Fastly caused several large websites to go down globally for about half an hour.
- Just like Akamai, Fastly is a cloud computing services provider, which offers CDN, edge computing, cloud storage services.

3.18 US, EU, NATO RELEASE JOINT STATEMENT URGING HALT IN FIGHTING IN AFGHANISTAN

The United States, the European Union and NATO have released a joint communique outlining five key elements for the future government of Afghanistan in order to be supported by the international community. The countries in their discussion on Afghanistan said that they are closely monitoring the situation in the country and called for a halt in the fighting stating that the conflict does not have a military solution.

- Special Representatives and Special Envoys of the US, the EU, France, Germany, Italy, NATO, Norway, and the UK met in Rome on 22 July to discuss the situation in Afghanistan and the developments in peace negotiations after the fresh round of talks in Doha between Taliban and the High Peace Council for Reconciliation led by Abdullah-Abdullah.
- The communique also called on all parties to reduce violence and protect civilians, respecting their obligations under international humanitarian law.





- The US and EU nations called for an immediate ceasefire. They appealed to the Taliban and the Afghan government to sit down and work out a negotiated settlement.
- They also urged the Taliban to reduce violence, uphold their commitments to protect
 Afghanistan's infrastructure, protect civilians and cooperate on humanitarian
 assistance, particularly as the Afghan people suffer acutely from the effects of COVID19 and drought, in addition to violence.
- The five elements of the joint communique include inclusive governance; the right to elect political leaders; protections for human rights, including rights of women, youth, and minorities; commitments on counter-terrorism, including ensuring that Afghanistan does not again serve as a safe haven for terrorists; and adherence to international law, including international humanitarian law.

4.1 MoD IMPLEMENTS WEB-BASED INTEGRATED SYSTEM FOR SANCTION & DISBURSEMENT OF DEFENCE PENSION

Recently, the Ministry of Defence has implemented SPARSH (System for Pension Administration Raksha).

What is SPARSH (System for Pension Administration Raksha)?

- It is an integrated system for automation of sanction and disbursement of defence pension.
- It is a web-based system which processes pension claims and credits pension directly into the bank accounts of defence pensioners without relying on any external intermediary.





- It is an end to end Online System facilitating and easing every aspect of Defence Pensions from Initiation to Disbursement.
- ❖ It is being implemented for meeting the pension sanction and disbursement requirements for Armed Forces viz. Army, Navy, Air Force and Defence Civilians.
- ❖ It will be administered by the Defence Accounts Department through the Principal Controller of Defence Accounts (Pensions), Prayagraj.

IMPORTANCE OF SPARSH

- ❖ It is available for pensioners to view their pension related information, access services and register complaints for redressal of grievances, if any, relating to their pension matters.
- ❖ It envisages establishment of Service Centres to provide last mile connectivity to pensioners who may be unable to directly access the SPARSH portal for any reason.
- ❖ The two largest banks dealing with defence pensioners i.e. State Bank of India (SBI) and Punjab National Bank (PNB) have been co-opted as Service Centres.
- ❖ It will interface all the stakeholders and provide a single source of truth there by ensuring transparency, accountability and ease of doing business through information dissemination.

4.2 CABINET MODIFIES 'AGRICULTURE INFRASTRUCTURE FUND'

Recently, the Union Cabinet has given its approval to modifications in Central Sector Scheme of Financing Facility under 'Agriculture Infrastructure Fund'.

Significance:

The following modifications approved under Central Sector Scheme of Financing Facility under AIF are:





- Eligibility has now been extended to State Agencies/APMCs, National & State Federations of Cooperatives, Federations of Farmers Producers Organizations (FPOs) and Federations of Self Help Groups (SHGs).
- ❖ At present Interest subvention for a loan upto Rs. 2 crorein one location is eligible under the scheme but in case, one eligible entity puts up projects in different locations then all such projects will be now be eligible for interest subvention for loan upto Rs. 2 crore.
- ❖ For a **private sector entity** there will be a **limit of a maximum of 25** such projects.
- The limitation of 25 projects **will not be applicable** to state agencies, national and state federations of cooperatives, federations of FPOs and federation of SHGs.
- The location will mean **physical boundary** of a village or town having a distinct **LGD** (Local Government Directory) code.
- ❖ For **APMCs**, **interest subvention** for a loan upto**Rs**. **2 crore** will be provided for each project of different infrastructure types e.g. cold storage, sorting, grading and assaying units, silos, etc. within the same market yard.
- The power has been delegated to the Minister of Agriculture & Farmers Welfare to make necessary changes with regard to addition or deletion of beneficiary.
- The period of financialfacility has been extended from 4 to 6 years upto 2025-26 and overall period of the scheme has been extended from 10 to 13 years upto 2032-33.

AGRICULTURE INFRASTRUCTURE FUND





- ❖ It aims to provide a **medium-long term debt** financing facility for investment in viable projects for **post-harvest** management infrastructure and community farming assets.
- Under the scheme, Rs One Lakh Crore will be provided by banks and financial institutions as loans to the following:
- Primary Agricultural Credit Societies (PACS),
- ➤ Marketing Cooperative Societies,
- Farmer Producers Organizations (FPOs),
- Farmers, Self Help Group (SHG) & Joint Liability Groups (JLG),
- Multipurpose Cooperative Societies,
- Agri-entrepreneurs & Startups,
- Aggregation Infrastructure Providers and
- Central/State agency or Local Body sponsored Public Private Partnership Project
- ❖ The loans will be disbursed in four years starting with sanction of Rs. 10,000 crore in the current financial year and Rs. 30,000 crore each in next three financial years.
- All loans under this financing facility will have **interest subvention of 3% per annum** up to a limit of **Rs. 2 crore** for a maximum period of **seven years**.





- ❖ The credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore.
- The National, State and District level Monitoring Committees will be set up to ensure realtime monitoring and effective feed-back.

IMPLICATIONS

Availability of Formal Credit: The facilitation of formal credit to farm and farm processing-based activities is expected to create numerous job opportunities in rural areas.

Management Information System (MIS) platform: Agri Infra fund will be managed and monitored through an online Management Information System (MIS) platform which will enable all the qualified entities to apply for loan under the fund.

Development of Agricultural Infrastructure: The funds will be provided for **setting up of cold stores and chains, warehousing, silos, assaying, grading and packaging units, e-marketing points** linked to e-trading platforms and ripening chambers.

Transparency of Interest Rates: The platform will provide benefits such as transparency of interest rates offered by multiple banks, scheme details including interest subvention and credit guarantee offered, minimum documentation, faster approval process as also integration with other scheme benefits.

4.3 KESARIA BUDDHA STUPA IS IN THE NEWS?

Recently, the **heavy rainfall in the catchment areas of the Gandak** in Nepal over a 24-hour period has resulted in waterlogging of **Kesaria Buddha Stupa**.

Kesaria Buddha Stupa

• It was **discovered in 1998** through excavation by the Archaeological Survey of India.





- It is located at **Kesaria in East Champaran district** about 120 K.M. from Patna and 30 miles from Vaishali on Indo Nepal border.
- It is one foot **taller than the famous Borobodur Stupa in Java** rising to a height of 104 feet and much reduced than its original height
- It is among the **nationally protected monuments in Bihar** and regarded as the largest in the world.
- The Stupa is **built up of bricks** laid in a very thin layer of mud mortar.

History behind Kesaria Buddha Stupa

- Buddha here at Kesaria said that in his previous births he ruled as **Chakravarti Raja**.
- The excavation reveals the terraces with "Pradakshina path" around the Stupa.
- The archeologists believe the Stupa in Kesaria known to the people as "Raja Ben ka DEORA" was built by Licchivis of Vaishali before Budha attained Nirvana.
- It is the **largest site** on the Buddhist route.
- Chinese pilgrim Fa Hien (5th century) and Hieun Tsang (7th century) had visited this site of Stupa as per his diary in the seventh century.
- It has **broad architectural similarity** with the 8th century CE Stupa at Borobudur in middle Java island of Indonesia in South East Asia.

4.4 ASHADHIBIJ IS IN THE NEWS?

Recently, the Prime Minister Shri Narendra Modi has greeted the people on the auspicious occasion of **AshadhiBij**.

About AshadhiBij

- It is observed on the second day of the shukla paksha or waxing phase of moon in Ashada month.
- It is the **Kutchi New Year**.
- It is a Hindu new year which is observed in the Kutch region in Gujarat.
- It is mostly a **traditional affair** and is **observed in homes**.
- Lord Ganesha, Goddess Lakshmi and other regional deities are worshipped on the day.
- It is a small festival mainly celebrated to **predict monsoon**.





About Jagannath Puri Rath Yatra

- Rath Yatra or Chariot festival, one of the much-awaited Hindu festivals, is celebrated
 every year on the 2nd day of the Shukla Paksha (waxing cycle of the moon) in the month
 of Asadh.
- The foremost epicentre for this festival is the Jagannath Puri temple, one of the four major
 Hindu shrines, which is situated in the state of Odisha.
- The festival honours the Lord Jagannath's visit along with his siblings to the temple of Queen Gundicha.
- Jagannath Puri temple is called 'Yamanika Tirtha' where the power of 'Yama', the god of
 death has been nullified in Puri due to the presence of Lord Jagannath

4.5 CABINET APPROVES CONTINUATION OF THE CENTRALLY SPONSORED SCHEME (CSS) FOR DEVELOPMENT OF INFRASTRUCTURE FACILITIES FOR JUDICIARY FOR FURTHER FIVE YEARS

Recently, the Union Cabinet has approved continuation of the **Centrally Sponsored Scheme (CSS)** for **Development of Infrastructure Facilities for Judiciary.**

Highlights

- The scheme is **extended for 5 years** i.e. from 1st April 2021 to 31st March 2026.
- The total cost of **Rs.9000 crore has been approved**, out of which Central share will be Rs.5357 crore including Rs.50 crore for the Gram Nyayalayas Scheme.
- The scheme will be implemented in a Mission Mode through National Mission for Justice Delivery and Legal Reforms.

Extension of CSS for Judiciary

 There are several courts which are still functioning in rented premises with insufficient space and some in a dilapidated condition without basic amenities.





- The lack of residential accommodation to all the judicial officers also adversely affects their working and performance.
- The present Government has remained sensitive to the needs of providing well
 equipped judicial infrastructure to subordinate judiciary to facilitate administration of
 justice.
- The adequacy of judicial infrastructure is critical for reduction of pendency and backlog of cases in Courts.
- The Central Government, for over 20 years, **provided only Rs. 3444 crore** to the State Governments/ Union Territories.

CSS for Development of Infrastructure Facilities for Judiciary

- It has been in **operation since 1993-94**.
- It augments the resources of the State Governments for **construction of court buildings** and residential quarters for Judicial Officers (JO) in all the States / UTs.
- It provides for additional activities like **construction of lawyer halls, toilets complexes** and digital computer rooms.
- It covers all the States and Union Territories.

Significance of CSS for Development of Infrastructure Facilities for Judiciary

- It will help in construction of 3800 court halls and 4000 residential units (both new and ongoing projects) for judicial officers of District and Subordinate Courts.
- It will help in **improving the functioning and performance of the Judiciary** in the country.
- It will be a new step towards **building better courts for a new India**.
- It will increase the availability of well-equipped Court Halls and Residential Accommodations for Judges / Judicial Officers of District and Subordinate Courts all over the country.
- The courts are being provided with **better amenities enabling win-win situation** for both the judiciary and the lawyers and also to ease of living of common man.





 The digital computer rooms will improve digital capabilities and give impetus to the digitization initiation being pursued as a part of India's Digital India vision.

Implementation of the Scheme from 2021 to 2026

- The **activities which will be implemented** for the next five years are:
 - Construction of 3800 court halls and 4000 residential units for Judicial
 Officers (JO) in all the District and Subordinate Courts in all the District and
 Subordinate Courts with an expenditure of Rs.4500 crores;
 - Construction of 1450 Lawyers' Halls in all the District and Subordinate Courts with an expenditure of Rs.700 crore;
 - Construction of 1450 toilet complex in all the District and Subordinate Courts with an expenditure of Rs.47 crore;
 - Construction of 3800 Digital Computer Rooms in the District and Subordinate Courts with an expenditure of Rs.60 crore; and
 - Operationalisation of Gram Nyayalayas in implementing states with an expenditure of Rs.50 crore

Monitoring of CSS for Development of Infrastructure Facilities for Judiciary

- An on-line monitoring system has been set up by the Department of Justice enabling data collection on progress, completion of court halls and residential units under construction as well as better asset management.
 - The Department of Justice has developed an online monitoring system with technical assistance from ISRO.
- The upgraded "Nyaya Vikas-2.0" web portal and mobile application is used for monitoring physical and financial progress of CSS judicial infrastructure projects by geotagging completed and ongoing projects.
- Regular State level meetings of the Monitoring Committee are held by various High
 Courts, States with State Chief Secretaries and PWD officials to enable speedy and good
 construction.





 The Gram Nyayalaya Portal helps online monitoring of working of the Gram Nyayalayas by the implementing states.

4.6 GOVERNMENT APPROVES CONTINUATION OF AYUSH MISSION AS CENTRALLY-SPONSORED SCHEME

Recently, the Union Cabinet has approved the continuation of **National AYUSH Mission (NAM)** as a **Centrally Sponsored Scheme** from 1st April 2021 to 31st March 2026.

Genesis

- The setting up of AYUSH Hospitals and Dispensaries comes under the purview of respective State/UT Governments because Public Health is a State subject.
- In 2020, the Union Cabinet has approved the proposal to operationalise AYUSH HWCs
 through States/UTs under the broad umbrella of National AYUSH Mission (NAM) in a
 phased manner by 2023-24.

National Ayush Mission (NAM)

- It is a centrally sponsored scheme for development and promotion of AYUSH system of medicine including Homoeopathy.
- It is a flagship scheme of **Ministry of AYUSH** approved and notified in 2014.
- The **grant-in-aid is being provided to State/UT Governments** for development and promotion of AYUSH as per their proposed **State Annual Action Plans** (SAAPs).
- The specific resource pool with respect to NAM for each State/UT Government is allocated and communicated by the Central Government.
- It provides financial assistance for upgradation of Government/ Panchayat/
 Government aided AYUSH Hospitals and Dispensaries for undertaking addition/
 alteration of existing premises, furniture, fixtures, equipments etc.

Features of National Ayush Mission (NAM)





- **Co-location of AYUSH facilities** at Primary Health Centers (PHCs), Community Health Centers (CHCs) and District Hospitals (DHs);
- Supply of essential drugs to AYUSH Hospitals and Dispensaries;
- Up-gradation of exclusive **State Government AYUSH Hospitals and Dispensaries**;
- Setting up of up to **50 bedded integrated AYUSH Hospital**;
- Upgradation of **State Government Educational Institutions**;
- Setting up of new **State Government AYUSH Educational Institutions** including Yoga and Naturopathy in the State where it is not available;
- Strengthening of State Government/ Public Sector Undertaking (PSU) Ayurveda, Siddha, Unani and Homoeopathy (ASU&H) Pharmacies and Drug Testing Laboratories (DTL);
- Cultivation and Promotion of Medicinal Plants; and
- Upgradation of Health facilities (AYUSH Dispensaries and Health sub-centers) into AYUSH Health and Wellness Centre

Objectives of National Ayush Mission (NAM)

- To provide cost effective AYUSH Services, with a universal access through upgrading AYUSH Hospitals and Dispensaries, co-location of AYUSH facilities at Primary Health Centres (PHCs), Community Health Centres (CHCs) and District Hospitals (DHs).
- To establish a holistic wellness model based on AYUSH principles and practices to
 empower masses for 'self-care' to reduce the disease burden, out of pocket expenditure and
 to provide informed choice to the needy public.
- To strengthen institutional capacity at the state level through upgrading AYUSH educational institutions, State Govt. ASU&H Pharmacies, Drug Testing Laboratories and ASU & H enforcement mechanism.
- Support cultivation of medicinal plants by adopting Good Agricultural Practices
 (GAPs) so as to provide sustained supply of quality raw-materials and support certification
 mechanism for quality standards, Good Agricultural/Collection/Storage Practices.





• Support setting up of clusters through **convergence of cultivation**, **warehousing**, **value addition and marketing** and development of infrastructure for entrepreneurs.

Expected outcomes of National AYUSH Mission

- Better access to AYUSH healthcare services through increased healthcare facilities
 offering AYUSH services and better availability of medicines and trained manpower;
- Improvement in AYUSH education through a well-equipped enhanced number of AYUSH Educational institutions; and
- To focus on reducing communicable/non-communicable diseases through targeted public health programmes using AYUSH systems of Healthcare.

4.7 MANGERBANI CAVE PAINTINGS SITE MAYBE AT LEAST 1 LAKH YEARS OLD, ESTIMATE ARCHAEOLOGISTS

Recently, the archaeologists of Haryana estimate that the cave paintings that the **Mangerbani Cave Paintings** may be up to 1 lakh years old.

Mangerbani Cave Paintings

- It was discovered at the prehistoric site of Mangerbani hill forest, Faridabad (Haryana).
- It may be one of the biggest Palaeolithic sites in the Indian sub-continent, where Stone
 Age tools were recovered from open-air sites as well as from rock shelters.
- It prompted the Haryana Archeology department to conduct exploration in Shilakhari,
 Mangar, Kot, and Dhauj of Faridabad district and Roj ka Gujjar and Damdama of Gurgaon district.
- It is for the first time that a prehistoric site, along with cave paintings and rock art of a large magnitude, has been found in Haryana.
- The caves are nestled amid a maze of quartzite rocks in the Aravalli mountain ranges.





- The paintings are yet to be dated but at least some of them belong to the Upper Palaeolithic period in all likelihood.
 - The Upper Paleolithic Age began around 40,000 years ago and lasted till around 10,000 years ago.

Pre-historic Paintings?

- The earliest examples of visual art in the form of paintings or carvings on rocks could be seen at the protected heritage sites in the country, in the form of rock shelter drawings and cave paintings or hand prints.
- These are believed to be dated earlier than 5500 BC.
- The Bhimbetka Cave Paintings in MP and Ketavaram rock paintings in Andhra Pradesh are made by prehistoric human beings from the Palaeolithic and Mesolithic eras.

Pre-historic Cave Paintings in India

Ajanta Cave Paintings

- It has the **oldest Indian paintings** because these paintings are made around the 1st century BC.
- Buddhism sprang in the Indian context and Ajanta caves, situated about 100 km from Aurangabad, remain to substantiate the same.
- They are universally called the **masterpieces of Buddhist art.**

Ellora Caves

- It is a very well-known **UNESCO World Heritage site**, which is located in **Maharashtra**.
- It is one of the world's largest rock-cut monastery cave which features the Hindu, Buddhist, and Jain temples.
- It dates back to 600 1000 CE period.





Elephanta Caves

- These caves are located in the **Elephanta islands of Maharashtra**.
- The colonial Portuguese named it Elefante which is morphed to Elephanta after they
 found elephant sculptures on the island.
- The paintings were made in the **8th century**.
- It is a collection of various cave temples, predominantly dedicated to the **Hindu god**, **Shiva**.

Bhimbetka caves

- The word Bhimbetka derived from Bhim Bhatika which was named after Bhima, one of the five Pandayas from Mahabharata.
- It is **found in Bhopal**, dating back to 12,700BC or earlier.
- It exhibits the earliest traces of human life.
- It shows the paintings and drawings of wild animals such as bison, tiger, elephant,
 rhinoceros and many more.

4.8 EDUCATION & TRIBAL AFFAIRS MINISTRIES LAUNCH SCHOOL INNOVATION PROGRAMME

Recently, the Union Education Minister along with Tribal Affairs Minister has launched the 'School Innovation Ambassador Training Program'.

School Innovation Ambassador Training Program

- The program is for **50,000 School Teachers**.
- It is jointly designed by Innovation Cell of Education Ministry and All India Council for Technical Education (AICTE).
- It is based on the Education Ministry's model of "Innovation Ambassador Training Program for Higher Educational Institution's faculty members".





- It aims to train the school teachers across country who will nurture the young school students on Ideation, IPR, product development, design thinking, problem-solving and critical thinking.
- Under the programme, the teachers shall be trained on the following **five modules**:
 - Design Thinking & Innovation;
 - Idea generation & Ideal hand-holding;
 - o Intellectual Property Rights;
 - o Product / Prototype development; and
 - o Finance, HR and Sales

Role of the Innovation Ambassadors under School Innovation Ambassador Training Program

- Help in creating the **culture of Innovation** in their respective schools;
- Mentor the teachers and students of their respective schools and nearby schools;
- Provide support to other **schools** as **resource person**;
- Spread the **message of innovation and start-ups** among the students and faculties;
- Act as an evaluator for Idea Competitions conducted at national level; and
- Act as a Mentor for the **national level program on Innovation** and related activities.

Selection criteria under School Innovation Ambassador Training Program

- Involved in developing innovative student projects;
- Has passion for working with students on developing new ideas;
- Demonstrable problem-solving skills;
- Good communication and analytical Skills; and
- Participated in any science/innovation exhibition, hackathons and idea competitions etc.





4.9 DIGITAL PLATFORM 'KISAN SARATHI' LAUNCHED TO FACILITATE FARMERS TO GET 'RIGHT INFORMATION AT RIGHT TIME' IN THEIR DESIRED LANGUAGE -93rd FOUNDATION DAY OF ICAR

Recently, the Minister of Agriculture & Family Welfare has launched the 'Kisan Sarathi' Platform.

Kisan Sarathi Platform

- It is a **digital platform** to facilitate farmers to get **'right information at right time'** in their desired language.
- It aims to **empower farmers with the technological interventions** to reach farmers in remote areas.
- It will allow the **farmers to interact and avail personalised advisories on agriculture** and allied areas directly from the respective scientists of Krishi Vigyan Kendra (KVKs).
- It aims to **support agriculture at the local level** with a national perspective.
- It will be **highly valuable in addressing the location-specific information needs** of the farmers and also in Agricultural Extension, Education and Research activities.
- Using the Kisan Sarathi digital platform, farmers can get information about crop and crop
 production, among other things that will help them in improving the quantity of their
 produce.
- The farmers will be able to get information about good crop practices, the right amount
 of produce and many other basic things through Kisan Sarathi.

Indian Council of Agriculture Research

- It is an **autonomous organisation** under the Department of Agricultural Research and Education **(DARE)**, Ministry of Agriculture and Farmers Welfare.
- It was established in July 1929 and was formerly known as the Imperial Council of Agricultural Research.
- It is headquartered at **New Delhi**.





It is the apex body for coordinating, guiding and managing research and education
in agriculture including horticulture, fisheries and animal sciences in the entire country.

Krishi Vigyan Kendra:

- It is an agricultural extension center in India. Usually associated with a local agricultural
 university, these centers serve as the ultimate link between the ICAR and farmers, and
 aim to apply agricultural research in a practical, localized setting.
- It is an integral part of the National Agricultural Research System (NARS).
- The **first KVK** was established in **1974 at Puducherry**.
- The mandate of KVK is technology assessment and demonstration for its application and capacity development.
- KVKs also produce quality technological products (seed, planting material, bio-agents, livestock) and make it available to farmers.
- The KVK scheme is **100% financed by the Government of India** and the KVKs are sanctioned to Agricultural Universities, ICAR institutes, related Government Departments and Non Government Organizations (NGOs) working in Agriculture.
- KVKs act as a bridge between the laboratories and farmland. According to the Government, these are crucial to fulfilling the target of doubling farmers' income by 2022.

4.10 INDIAN MIGRANT WORKER'S TRADITIONAL MARTIAL ARTS MOVES WIN HIM TOP PRIZE IN SINGAPORE

Recently, a migrant worker who choreographed and performed a sequence of **Silambam** had won the top prize at a talent competition.

Silambam Martial Art



It is considered as the **best form of self-defense technique** and is often practiced as a sport.





- It is an ancient weapon-based martial art that emerged in Tamilakam, which is now Tamil Nadu region of India.
- The term Silambam contains a meaning which itself reveals about the sport, silam stands for a 'mountain' and bam stands for bamboo which is the main weapon used in this form of martial arts.
- The bamboo staff is the main weapon and the length of the bamboo staff depends on the height of the practitioner.
- Besides this, there are **more weapons used** in Silambam which are as listed below:
 - Maru- thrusting weapon which is made from horns of deer.
 - Aruva- sickle
 - Savuku- a whip
 - Vaal- curved sword
 - Kuttu Katai spiked knuckleduster
 - Katti- knife
 - **Sedikuchi** cudgel or short stick
- It is believed to be **originated somewhere around 1000 BCE**.
- It was brought by the sage Agastya Munivar.
- Sillappadikkaram and many other works of Sangam literature mentions about the
 practice and it dates back to 2nd century BC whereas oral folk tales traces it back even
 further around 7000 years

4.11 PUSHKAR SINGH DHAMI SWORN IN AS NEW UTTARAKHAND CM

Recently, Pushkar Singh Dhami has been appointed as Chief Minister of Uttarakhand.





Constitutional Provisions for Appointment of a Chief Minister

- The Constitution does not contain any specific procedure for the selection and appointment of the Chief Minister.
- **Article 164** only says that the Chief Minister shall be **appointed by the governor**.
 - o It **does not imply** that the governor is free to appoint any one as the Chief Minister.
- The governor has to **appoint the leader of the majority party** in the state legislative assembly as the Chief Minister.

Conditions for Appointment of Chief Minister

- The Constitution **does not require that a person must prove his majority** in the legislative assembly before he is appointed as the Chief Minister.
- A person who is not a member of the state legislature can be appointed as Chief
 Minister for six months, within which time, he should be elected to the state legislature,
 failing which he ceases to be the Chief Minister.
- The Constitution provides that the Chief Minister may be a member of any of the two Houses of a state legislature.
- The term of the Chief Minister is not fixed and he holds office during the pleasure of the governor.
- The Chief Minister cannot be dismissed by the governor as long as he enjoys the majority support in the legislative assembly.
- **Article 163:** There shall be a council of ministers with the Chief Minister as the head to aid and advise the governor on the exercise of his functions.
- **Article 164:** The Chief Minister shall be appointed by the governor and other ministers shall be appointed by the governor on the advise of the Chief Minister;





- o The ministers shall hold office during the pleasure of the governor; and
- The council of ministers shall be collectively responsible to the legislative assembly of the state.
- **Article 167:** It shall be the duty of the Chief Minister:
 - To communicate to the governor of the state all decisions of the council of ministers relating to the administration of the affairs of the state and proposals for legislation;
 - To furnish such information relating to the administration of the affairs of the state and proposals for legislation as the governor may call for; and
 - Of the governor so requires, to submit for the consideration of the council of ministers any matter on which a decision has been taken by a minister but which has not been considered by the council.

4.12 NEWS ON AIR RADIO LIVE-STREAM GLOBAL RANKINGS

Recently, the global rankings of All India Radio Live-streams was released.

News On Air Global Ranking

- It ranked **top countries in the world (excluding India)** where All India Radio Livestreams on News On Air App are most popular.
 - **United States** continues to occupy the top spot in the ranking.
 - **Fiji** has jumped from 5th position to 2nd, while **Saudi Arabia** has made a comeback in top 10.
 - Kuwait and Germany are new entrants, while France and New Zealand are no more in top 10.





- The All India Radio's Telugu and Tamil live-stream services are popular in United States, while AIR Punjabi service is popular in United Kingdom.
- The AIR News 24*7has moved one position up from Rank 7 to 6, while AIR Tamil
 has slipped from spot 6 to 10.
- The News On Air Global Top 10 streams are Vividh Bharati National, FM Gold Delhi, FM Rainbow Delhi, AIR Malayalam, AIR Chennai Rainbow, News 24×7, AIR Punjabi, AIR Kodaikanal, Asmita Mumbai and AIR Tamil.
- The News On Air Top Countries (Rest of world) are United States, Fiji, Australia, United Kingdom, Canada, United Arab Emirates, Singapore, Kuwait, Saudi Arabia and Germany.
- In the latest Rankings of top cities in India, **Bhopal is the new entry in the**ranking whereas **Lucknow has missed out** in top 10 rankings.
 - Chennai has displaced Hyderabad to take the third spot and Hyderabad slides to number 4.
 - Pune and Bengaluru have retained their first and second positions respectively.
- In major changes in rankings of top AIR Streams in India, **AIR Pune has moved 3 positions up** from rank 7 to rank 4.
 - **FM Rainbow Delhi has slipped** from 5th to 9th position.
 - **FM Rainbow Kochi is the new entrant**, while FM Rainbow Mumbai is no more in the top 10.
- The News On Air Top 10 Indian Cities are Pune, Bengaluru, Chennai, Hyderabad, Mumbai, Delhi NCR, Ernakulam, Bhopal, Jaipur and Patna.

4.13 GOVT LAUNCHES MOBILE APP 'Matsya Setu' FOR INDIAN AQUA FARMERS





Recently, the Ministry of Fisheries, Animal Husbandry & Dairying has launched an app called 'Matsya Setu'.

Matsya Setu

- It is **Online Course Mobile App**.
- It is developed by the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar, with the funding support of the National Fisheries Development Board (NFDB), Hyderabad.
- It aims to disseminate the latest freshwater aquaculture technologies to the aqua farmers of the country.
- It has species-wise/ subject-wise self-learning online course modules, where renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes.

Significance of Matsya Setu

- It will be helpful for the farmers to learn the advancements in the technologies and Better Management Practices at their convenience.
- It will be an important tool to **disseminate the latest information on different schemes** among the stakeholders, especially fishers, fish farmers, youth and entrepreneurs across the country, assist them and facilitate ease of doing business.
- It will conduct quizzes/tests for self-assessment in order to motivate the learners and provide a lively learning experience.

Need for Matsya Setu App

 The capacity building of fish farmers is a very vital part of spearheading the Technology-led Aquaculture Development in the country.





 The training for farmers should be provided on various activities including ornamental fisheries, seaweed culture, module on feed preparation, post-harvest value addition.

4.14 SIR CHETTUR SANKARAN NAIR

Recently, the filmmaker Karan Johar has announced his decision to produce the biopic of **Sir Chettur Sankaran Nair.**

Sir Chettur Sankaran Nair

- He was an **acclaimed lawyer and judge** in the Madras High Court.
- He was born in the year 1857 in **Mankara village of Malabar's Palakkad district.**
- He belonged to an aristocratic family and his great grandfather was employed by the East India Company to enforce peace in the Malabar region.
- He was known for being a passionate advocate for social reforms and a firm believer in the self-determination of India.
- The courtroom battle he fought against the Lieutenant-Governor of Punjab, Michael
 O'Dwyer really stood out in his long glorious career.
 - Nair had accused O'Dwyer in his book, 'Gandhi and anarchy' for being responsible for the atrocities at the Jallianwala Bagh massacre.

Sir Chettur Sankaran Nair during India's Freedom Struggle

- He was one of the early builders of the Indian National Congress who had also served as its president in 1897.
 - In 1897 he became the **youngest president of the INC** in the history of the party till then, and the only Malayali to hold the post ever.





- In 1902 Lord Curzon appointed him a member of the Raleigh University Commission.
- In 1904 he was appointed as Companion of the Indian Empire by the King-Emperor and in 1912 he was knighted.
- By 1908 he was appointed as a **permanent judge** in the Madras High Court.
- In Budasna v Fatima (1914), he passed a radical judgement when he ruled that those who
 converted to Hinduism cannot be treated as outcastes.
- In 1915 he became **part of the Viceroy's Council**, put in charge of the education portfolio.
- In 1919, he played an important role in the expansion of provisions in the Montagu-Chelmsford reforms which introduced a system of dyarchy in the provinces and increased participation of Indians in the administration.

4.15 PUNJAB SUBA MOVEMENT

Recently, the Shiromani Gurdwara Parbandhak Committee (SGPC) has decided to organise an event to mark the anniversary of police action at the Golden Temple against Punjab Suba Movement.

Punjab Suba Movement

- It **started in Punjab** soon after the Independence.
- The Shiromani Akali Dal was spearheading the movement for a Punjabi speaking state.
- Those in favour of demand used to raise slogan 'Punjabi Suba Amar Rahe' and those
 opposing demand were raising slogans in favour of 'Maha-Punjab'.
- It was on April 6, 1955 that Amritsar DC banned the slogans of 'Punjabi Suba' and 'Maha-Punjab' fearing law and order problem.





 It is suspected that slogans like Punjabi Suba or Maha-Punjab Amar Rahe, or Punjabi Suba Zindabad can violate the law and order.

Implications of ban on Punjab Suba Movement

- The SAD held a meeting on April 24, 1955 in Amritsar and passed a resolution to start
 peaceful non-violent protest from May 10, 1955 if the ban on Punjabi Suba slogans
 was not revoked.
- The arrests of SAD workers continued across Punjab and around 400 SAD workers were arrested in Ludhiana.
- A **convention was called in Delhi on June 7, 1955** which was attended by leaders like Kedar Nath Sehgal, Ram Sharma, Left leaders Sohan Singh Josh and Harkrishan Singh Surjit, Chaudhary Bhan Singh and Randhir Singh.
- The non-violent movement reached its peak in July and large number of volunteers
 reached Akal Takht and it shifted the focus of Punjab government on Golden Temple.

Constitutional Provisions for Creation of New States

- Article 3 assigns to Parliament the power to enact legislation for the formation of new States.
- The Parliament may create new States in a number of ways, namely by:
 - Separating territory from any State,
 - Uniting two or more States,
 - Uniting parts of States and
 - Uniting any territory to a part of any State
- The Parliament's power under Article 3 extends to increasing or diminishing the area of any State and altering the boundaries or name of any State.





- A bill calling for formation of new States may be introduced in either House of Parliament only on the recommendation of the President.
- A bill must be referred by the President to the concerned State Legislature for expressing its views to Parliament if it contains provisions which affect the areas, boundaries or name of that State.

4.16 CLINICAL TRIALS REGISTRY INDIA (CTRI)

Recently, the **Ministry of AYUSH** has announced that the **Ayurveda Dataset on Clinical Trials Registry India (CTRI) Portal** will be launched.

Highlights

- The Ayurveda Dataset of CTRI has been jointly developed by ICMR and Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of Ayush.
- Its key feature is the provision of selection of the Ayurveda Health conditions from drop down of 3866 Ayurveda morbidity codes incorporated from the NAMASTE portal.
- It provides that the information, results etc. of Ayurveda Clinical Trials will be available in Ayurvedic vocabulary in the clinical trials registry of India.

Clinical Trials Registry India (CTRI)

- It is a **primary register of Clinical Trials** under WHO's International Clinical Trials Registry Platform (ICTRP).
- It hosted at the ICMR's National Institute of Medical Statistics (NIMS).
- It is a free and online public record system for registration of clinical trials being conducted in India.





- It was initiated as a **voluntary measure since 2009**.
- The trial registration in the CTRI has been made **mandatory by the Drugs Controller General (India) (DCGI).**

Objectives of CTRI

- **Improve transparency and accountability:** By disclosing all required details of the protocol of trials, public confidence in clinical trials is likely to be enhanced.
- Improve the internal validity of trials: Empirical research has shown that some aspect of the methods of the trial are particularly important to produce reliable results by minimizing biases, confounders and the effects of chance or coincidence.
- Conform to accepted ethical standards: The Indian Council of Medical Research
 through its Bio-ethics initiative has developed ethical guidelines for the conduct of trials
 and for ethics committees.
- Reporting of all relevant results of registered trials: The CTRI is working with the WHO ICTRP to ensure that results of all trials registered with the CTRI are adequately reported and publicly available.

Significance of Clinical Trials

- It holds enormous potential for benefiting patients, improving therapeutic regimens and ensuring advancement in medical practice.
- A need has been felt on the imperative for transparency, accountability and accessibility in order to re-establish public trust in clinical trial data.
- The registration of trials will ensure transparency, accountability and accessibility of clinical trials.

International Clinical Trials Registry Platform (ICTRP)





- It is a project of the World Health Organization, based within the Health Metrics and Measurement cluster.
- It was established in **August 2005**.
- It is based in WHO Headquarters in **Geneva**, **Switzerland**.
- Its aim is to facilitate the prospective registration of the WHO Trial Registration

 Data Set on all clinical trials, and the public accessibility of that information.
- Its purpose is to strengthen accountability and transparency in the conduct of clinical research and dissemination of results generally and in particular for clinical trials.

4.17 EKLAVYA MODEL RESIDENTIAL SCHOOLS IN JHARKHAND

Recently, the Union Minister of Tribal Affairs has laid foundation stone for construction 5 **Eklavya Residential Model Schools (EMRS)** in three districts of Jharkhand.

Eklavya Model Residential Schools

- It was started in the year 1997-98 to impart quality education to ST children in remote areas.
- It is a flagship intervention of the **Ministry of Tribal Affairs**.
- The grants for construction of schools and recurring expenses to the State Governments were given under Grants under Article 275 (1) of the Constitution.
- Target: It has been decided that by the year 2022, every block with more than 50% ST population and at least 20,000 tribal persons, will have an EMRS.

Objectives of EMRS





- Comprehensive physical, mental and socially relevant development of all students enrolled in each and every EMRS;
- Provide quality middle and high level education to Scheduled Tribe (ST) students in remote areas;
- Focus differentially on the educational support to be made available to those in Standards XI and XII, and those in standards VI to X;
- Support the annual running expenses in a manner that offers reasonable remuneration to the staff and upkeep of the facilities; and
- Support the construction of infrastructure that provides education, physical, environmental and cultural needs of student life

Significance of Eklavya Model Residential Schools

- It aims to enable them to avail of opportunities in high and professional educational courses and get employment in various sectors.
- It focuses not only on academic education but on the all-round development of the students.
- They have become an **island of excellence in the remote tribal hinterlands** attracting large number of tribal children.
- The focus under the scheme is to **ensure holistic development of the students** in both academic and extracurricular sphere.

4.18 TRAFFICKING IN PERSONS (PREVENTION, CARE AND REHABILITATION) BILL, 2021

Recently, the Ministry of Women and Child Development has invited comments/suggestions from all the stakeholders on the draft 'Trafficking in Persons (Prevention, Care and Rehabilitation)
Bill, 2021'.





Features of Trafficking in Persons Bill, 2021

- It provides a person found guilty of trafficking can be **imprisoned for a minimum term of seven years**, which can be extended to 10 years.
- It shall apply to every offence of trafficking in persons with cross-border implications.
- It proposes stringent punishments for offenders, including hefty fines seizing of their properties.
- It will also allow the properties of the convicts, bought using money from trafficking, to be forfeited.
 - The property bought via such income as well as used for trafficking can now be **forfeited with provisions set in place**, similar to that of the money laundering Act.
- It also **does away with the provision** that a victim necessarily needs to be transported from one place to another to be defined as a victim.

Objectives of Trafficking in Persons Bill, 2021

- The **objective** of the bill is to:
 - Prevent and counter trafficking in persons, especially women and children;
 - Provide for care, protection, and rehabilitation to the victims, while respecting their rights; and
 - Creating a supportive legal, economic and social environment for them
- It aims to ensure prosecution of offenders and for matters connected therewith or incidental thereto.





Coverage of Trafficking in Persons Bill, 2021

- It will **extend to all citizens** inside as well as outside India.
- It will **cover persons on any ship or aircraft registered in India** wherever it may be or carrying Indian citizens wherever they may be.
- It will also cover **foreign national or a stateless person who has his or her residence in India** at the time of commission of offence under this Act.
- The scope of the Bill viz a viz offenders will also include defence personnel and government servants, doctors and paramedical staff or anyone in a position of authority.
- It extends beyond the protection of women and children as victims to now include transgenders as well as any person who may be a victim of trafficking.

Arguments of Government on Trafficking in Persons Bill, 2021

- The Ministry has said that the proposed bill will provide care, protection, and rehabilitation to the victims of trafficking.
- It will also create a supportive legal, economic and social environment for them and also to ensure prosecution of offenders.

4.19 AUTONOMOUS HILL DEVELOPMENT COUNCIL (HDC)

Recently, a committee under Minister of State for Home G Kishan Reddy will seek to address the demands from Ladakh after **Jammu and Kashmir was bifurcated into two Union Territories.**

Highlights





- The August 2019 changes were immediately opposed by the people of Kargil, where
 the leaders of the majority Shia population demanded that the district should remain
 part of J&K.
- They argued that the special status be restored to safeguard the rights of Kargil people over their land and employment opportunities.
- A UT for Ladakh had been a long-standing demand in Buddhist majority Leh, which
 believed it was marginalised in the larger state of J&K.
- The Ladakh districts' fear is that alienation of land, loss of identity, culture, language, and change in demography, will follow their political disempowerment.

Autonomous Hill Development Council

- Leh and Kargil have separate Autonomous Hill Development Councils, set up under the Ladakh Autonomous Hill Development Councils Act, 1997.
- The AHDCs have no legislative powers.
- The councils are elected, and have executive powers over the allotment, use and occupation of land vested in them by the Centre.
- The AHDCs have the powers to collect some local taxes, such as parking fees, taxes
 on shops etc.
- The democratic constitution of the Council has heralded democratic decentralization
 of planning process with the involvement of people at the grass root level.
- The Hill Council is endeavoring to register prompt monitoring of the developmental works by ensuring transparency and accountability in the district administration.

Movement for Sixth Schedule Status in Ladakh





- The People's Movement for Sixth Schedule put forth its demand for an autonomous hill council under the Sixth Schedule, modelled on the lines of the Bodoland Territorial Council in Assam.
- The Sixth Schedule is a provision of Article 224(A) of the Constitution, originally
 meant for the creation of autonomous tribal regions in Assam, Meghalaya, Mizoram and
 Tripura.
- The **Hill councils under Article 224(A)** provision have legislative powers.

4.20 KALBELIYA DANCE

Recently, the COVID-19 pandemic has hit the traditional art and artists and the chendavia app has provided support to **Kalbeliya Dance**.

Kalbeliya Dance

- It is the **snake dance** from the state of **Rajasthan**.
- It is a piece of art performed by the **Kalbeliya tribe**.
- The word Kalbeliya is a blend of two words which are 'Kal' means snake and 'Beliya'
 means friends.
- It is listed under UNESCO's representative list of the Intangible Cultural Heritage of Humanity from the year 2010.
- **Both men and women participate** in Kalbeliya dance.
- Kalbeliya tribe is a nomadic tribe who was basically snake-charmers from Rajasthan and has been tabooed as the scheduled and the untouchable caste.
- The tribe has been living and following the same routine, traditions and their lifestyle since the medieval times.





The men used to earn money through all these activities and the women of this tribe
used to occasional dance on the streets on festivals with an aim to earn the extra
money from the rich.

Costume for Kalbeliya Dance

- The ladies wear long heavily embroidered mirror worked black skirt called as
 Lehnga and a silver thread worked Choli and Chunris.
- The women deck up with heavy silver jewelries that include beautifully carved jhumka, neck piece and tikka.

Instruments used in Kalbeliya Dance

- It is accompanied by the **traditional instruments of Rajasthani folk music** like the morchang, dufli, dholak, khanjari, khuralio.
- The most traditional and important instrument used is the 'been or poongi' which is a wood wind instrument used by snake charmers.

Folk Dances of Rajasthan

More dances of Rajasthan Bhavai Dance, Chakri Dance, Chari Dance, Drum Dance,
 Fire Dance, Gair Dance, Gavari Dance, Ghoomar Dance, Kachhi Ghodi, Kathak
 Dance, Kathputli, Khayal Dance, Terah Taali, Walar Dance.

4.21 DIGITAL INDIA PROGRAMME

Recently, the Prime Minister has celebrated 6 years of **Digital India Programme**.

 The Government of India had launched National e-Governance Plan (NeGP) in 2006 to take a broader dimension for wider sectoral applications with emphasis on citizen-centric services.





- 31 Mission Mode Projects covering various domains were initiated under National e-Governance Plan (NeGP).
- The Government of India has launched the Digital India programme in 2015 in order to transform the entire ecosystem of public services through the use of information technology.

Features of Digital India Programme

- It is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy.
- It is an **ambitious programme** of Government of India projected at Rs 1,13,000 crores.
- It provides the intensified impetus for further momentum and progress for e-Governance.
- The source of funding for most of the e-Governance projects at present is through budgetary provisions of respective ministries/departments in the central or state governments.

Objectives of Digital India Programme

- Development of a stable and secure digital infrastructure;
- Delivering government services digitally; and
- Universal Digital Literacy

Significance of Digital India Programme

- The objective is achieved by **strengthening online infrastructure and improving internet connectivity** or to make India digitally empowered in the field of technology.
- It includes plans to connect rural areas with high-speed internet networks and improve digital literacy.





- It is **empowering the common citizen by reducing the gap** between government and people, system and facilities, problems and solutions.
- It gives opportunity for all, facility for all, participation of all and everyone's
 access to the government system.

Initiatives under Digital India

Infrastructure

- **AADHAR:** One of the key strengths of 'Digital India', wherein every resident of the country is given a unique identity number.
- Bharat Broadband Network (BBNL): It is the custodian of Digital India and the creation of the National Optical Fiber Network (NOFN) has been mandated in India.
- **CERT-IN:** It is formed with the intention to secure Indian cyberspace.
- Deen Dayal Upadhyaya Gram Jyoti Yojana: It is one of the flagship programs of the Power Ministry and is designed to provide a continuous power supply to the entire rural India.
- **Digital Saksharta Abhiyaan (DISHA):** This aims to provide IT training to 52.5 lakh persons.

Services

- Accessible India Campaign and Mobile App: It is launched for achieving universal
 accessibility for enabling people with disabilities to gain access to equal opportunity.
- Agrimarket App: It aims to keep farmers abreast with the crop prices and avoid distress sale.
- BHIM (Bharat Interface for Money): It makes payment easy and quick using UPI.





 Crime and Criminal Tracking Network & Systems (CCTNS): It aims for nationwide networking infrastructure for the evolution of an IT-enabled state-of-the-art tracking system.

Empowerment

- Aadhaar Enabled Payment System (AEPS): It is a bank led model which allows online
 interoperable financial inclusion transaction at PoS through the Business correspondent
 of any bank using the Aadhaar authentication.
- Digidhan Abhiyaan: It aims to enable citizens and merchants to undertake real time digital transactions through the DIGIDHAN Bazaar.
- PAHAL (DBTL): It aims to reduce diversion and eliminate duplicate or bogus LPG connections.

4.22 BHARATNET IMPLEMENTATION THROUGH PUBLIC PRIVATE PARTNERSHIP (PPP) MODEL

Recently, the Union Cabinet has accorded the approval for revised implementation strategy of **BharatNet through Public Private Partnership mode**.

Key Highlights

- The BharatNet programme will now extend upto all inhabited villages beyond Gram
 Panchayats (GPs) in the 16 states of the country.
- The revised strategy also includes creation, upgradation, operation, maintenance
 and utilization of BharatNet by the concessionaire who will be selected by a
 competitive international bidding process.
- The estimated maximum viability gap funding approved for the above PPP model is Rs. 19,041 crores.





 The States covered under the approval are Kerala, Karnataka, Rajasthan, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, West Bengal, Assam, Meghalaya, Manipur, Mizoram, Tripura, Nagaland and Arunachal Pradesh.

Significance of PPP Model for BharatNet

- It will leverage Private Sector **efficiency for operation**, **maintenance**, **utilization and revenue generation**.
- It is expected to result in **faster roll out** of BharatNet.
- The selected concessionaire (Private Sector Partner) is expected to provide **reliable**, **high speed broadband services** as per pre-defined Services Level Agreement (SLA).
- The extension of reach of BharatNet to all inhabited villages with reliable, quality, high speed broadband will enable better access of e-services offered by various Central and State Government agencies.
- It will also enable **online education**, **telemedicine**, **skill development**, **e-commerce** and other applications of broadband.
- It is expected that revenue will be generated from different sources including proliferation of broadband connections to individuals & institutions, sale of dark fibre, Fiberization of mobile towers, e-commerce etc.
- The proliferation of broadband in rural areas will bridge the rural-urban divide of digital access and accelerate the achievement of Digital India.
- The penetration and proliferation of broadband is also expected to increase direct and indirect employment and income generation.

BharatNet Project

It is a project of national importance to establish a highly scalable network
infrastructure accessible on a non-discriminatory basis.





- It aims to provide on demand, affordable broadband connectivity of 2 Mbps to 20
 Mbps for all households and on demand capacity to all institutions.
- It is being funded by Universal service Obligation Fund (USOF).
- It is a Centre-State collaborative project, with the States contributing free Rights of Way for establishing the Optical Fibre Network.
- The Bharat Broadband Network Limited (BBNL) is a special purpose vehicle for management, establishment, and operation of BharatNet.

4.23 ONE NATION ONE RATION CARD (ONORC)

Recently, the Supreme Court directed all states and Union Territories to implement the One Nation, One Ration Card (ONORC) system by July 31 2021.

- The scheme was **launched on a pilot basis in four states** in 2019.
- The government decided a nation-wide rollout of the scheme in all states and Union Territories by March 2021.
- The **Ministry of Consumer Affairs, Food & Public Distribution** in association with State/UT Governments is implementing 'One Nation One Ration Card' (ONORC) plan.
- It is aimed at nation-wide portability of ration cards under the National Food Security Act, 2013 (NFSA).

One Nation One Ration Card (ONORC)

- It is aimed at enabling migrant workers and their family members to buy subsidised ration from any fair price shop anywhere in the country under the National Food Security Act, 2013.
- It is based on technology that **involves details of beneficiaries' ration card, Aadhaar** number, and electronic Points of Sale (ePoS).





- The system identifies a beneficiary through biometric authentication on ePoS devices at fair price shops.
- The system runs with the support of two portals i.e. Integrated Management of Public
 Distribution System (IM-PDS) and Annavitran which host all the relevant data.
 - The Annavitran portal maintains a record of intra-state transactions i.e. inter-district and intra-district and the IM-PDS portal records the inter-state transactions.

Factors responsible for ONORC Scheme

- The NFSA beneficiaries were not able to access their PDS benefits outside the
 jurisdiction of the specific fair price shop to which they have been assigned.
- The government envisioned the ONORC to give them access to benefits from any fair price shop.
- The full coverage will be possible after 100% Aadhaar seeding of ration cards has been achieved, and all fair price shops are covered by ePoS devices.
- The idea was to **reform the Public Distribution System (PDS)**, which has been historically marred by inefficiency and leakages.

Eligibility under One Nation One Ration Card (ONORC)

- Any citizen, who is declared under Below Poverty Line (BPL) category, will be
 eligible to get the benefit of this scheme across the country.
- The directions under Section-38 of the NFSA have been issued to all States/UTs to cover all eligible disabled persons under the NFSA.
- All States/UTs have also been advised to identify needy persons from the weaker sections of the society including disabled persons and issue NFSA ration cards to all eligible persons/households.





• The beneficiaries will be identified on the basis of their **Aadhaar based** identification through the electronic point of sale (PoS) device.

Significance of One Nation One Ration Card (ONORC)

- The scheme aims to ensure all beneficiaries, especially migrants get ration (wheat, rice
 and other food grains) across the nation from any Public Distribution System (PDS) shop
 of their own choice.
- The scheme is launched with the purpose that no poor person should be deprived of getting subsidised food grains under the food security scheme when they shift from one place to another.
- It aims to reduce instances of corruption by middlemen and fraudulence in ration cards to avail benefits from different states.

The scheme is also aimed at **reducing the incidents of hunger deaths** in the country, to further improve rankings in the Global Hunger Index.

4.24 REVAMPED DISTRIBUTION SECTOR SCHEME

Recently, the Union Cabinet has approved a Reforms-based and Results-linked, **Revamped**Distribution Sector Scheme.

Revamped Distribution Sector Scheme

- The Scheme will have an outlay of Rs.303758 crore with an estimated GBS from Central Government of Rs.97631 crore.
- The Scheme would be available till the **year 2025-26**.





 The Rural Electrification Corporation Limited (REC) and Power Finance Corporation (PFC) have been nominated as nodal agencies for facilitating implementation of the Scheme.

Features of Revamped Distribution Sector Scheme

- The DISCOMs have to score a minimum of 60% of marks and clear a minimum bar in respect to certain parameters to be able to be eligible for funding against the Scheme in that year.
- It converges with the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (PM-KUSUM) Scheme, which aims to solarize all feeders, and provide avenues for additional income to farmers.
- Its key feature is to enable consumer empowerment by way of prepaid smart metering to be implemented in Public-Private-Partnership (PPP) mode.
 - It is proposed to install approximately 10 crore prepaid Smart Meters by December 2023 in the first phase.

Objectives of Revamped Distribution Sector Scheme

- Reduction of AT&C (Aggregate Technical & Commercial) losses to pan-India levels of 12-15% by 2024-25;
- Reduction of ACS-ARR gap to zero by 2024-25;
- Developing Institutional Capabilities for Modern DISCOMs; and
- Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector

Major Components of Revamped Distribution Sector Scheme

Consumer Meters and System Meters





- Prepaid Smart Meters for all consumers except Agricultural consumers;
- 25 crore consumers to be covered under prepaid Smart metering; and
- Prioritizing the urban areas, UTs, AMRUT cities and High Loss areas for prepaid smart metering

Feeder Segregation

- Funding for feeder segregation for unsegregated feeders, which would enable solarization under KUSUM; and
- Solarization of feeders will lead to cheap/ free day time power for irrigation and additional income for the farmers

Modernization of Distribution system in urban areas

- Supervisory Control and Data Acquisition (SCADA) in all urban areas; and
- DMS in 100 urban centers

Significance of Revamped Distribution Sector Scheme

- It seeks to improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOMs.
- It aims to provide conditional financial assistance to DISCOMs for strengthening of supply infrastructure.
- It provides for annual appraisal of the DISCOM performance against predefined and agreed upon performance trajectories including AT&C losses, ACS-ARR gaps, infrastructure upgrade performance etc.
- It has a major focus on improving electricity supply for the farmers and for providing daytime electricity to them through solarization of agricultural feeders.

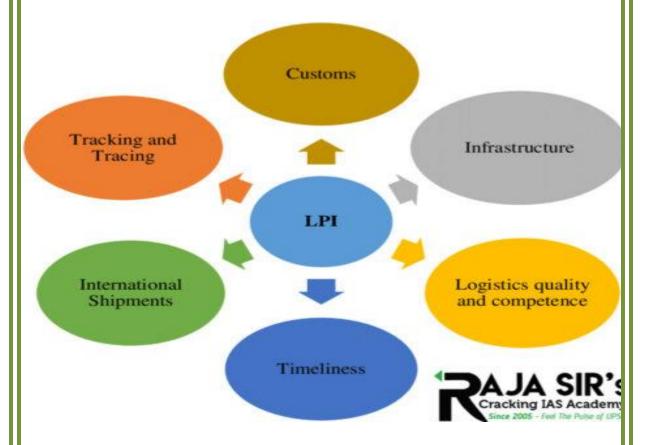




4.25 GOVT ANNOUNCES LAUNCH OF NATIONAL LOGISTICS EXCELLENCE AWARDS

Recently, the Ministry of Commerce & Industry has launched the **National Logistics Excellence Awards.**

National Logistics Excellence Awards



The framework of awards has been finalized in **consultation with the logistics associations and forum** user industry partners.

- The award has been categorized into **two groups**:
 - The first group includes **logistics infrastructure/service providers**; and





• The second one is for **various user industries**.

Significance of National Logistics Excellence Awards

- They will **highlight best practices** including consolidation, process standardization, technological upgrade, digital transformations, and sustainable practices.
- The awards aim to turn the spotlight on logistics service providers who have attained operational excellence, adopted digitization and technology, improved customer service and pursued sustainable practices.
- The awards will **showcase efforts** towards supply chain transformation, supplier ecosystem development, skill development, automation, and other similar endeavours.
- They will be an opportunity to laud the extraordinary measures organisations
 have taken to address the deficiencies exposed by the COVID-19 pandemic.
 - It includes last-mile delivery start-ups, development of cold storage facilities, effective transportation of oxygen, and uninterrupted supply of essential goods and services to the needy.
- The awards will help in **improving India's ranking** in the global **Logistics**Performance Index (LPI).

Logistics Sector of India

- The Indian logistics sector has been growing at a CAGR of 10.5%, reaching approximately USD 215 billion in value in 2020.
- There are systemic, interconnected problems that must be addressed to enhance its
 efficiency.
- The comprehensive logistics costs amount to almost 14% of India's GDP.





 The closing of India's competitiveness gap vis-à-vis the global average of 8 percent, would make the Indian logistics sector advanced, organised and efficient, on par with global peers.

4.26 104 STARTUPS REGISTERED ON STARTUP INDIA SHOWCASE PLATFORM: COMMERCE MINISTRY

Recently, 104 startups from different sectors have been registered on the **Startup India Showcase platform** where most promising budding startups are exhibited in the form of virtual profiles.

Startup India Showcase Platform

- It is an **online discovery platform for startups** of the country.
- It exhibits the **finest startups of the country** that have been handpicked through various DPIIT and Startup India programs.
- It hosts most promising startups of the country chosen through various DPIIT and Startup India programs exhibited in a form of virtual profiles.
- **Application for Startup Showcase:** All DPIIT-recognized startups under Startup India are eligible to apply for the Showcase.
 - Startups can apply on the Startup India website by filling a form, uploading their pitch deck, and catalogue.
- Final Shortlisting and Publishing on the Showcase platform: An Apex Committee
 has been constituted by DPIIT for the selection of startups for the Startup India showcase
 platform.
 - It is done from the list of applications of startups, recommendations from states, and any other startup that the Apex Committee deems fit for the showcase platform.





Feature of Startup India Showcase Platform

- **Visibility:** Each startup has a profile page with detailed pitch about their product, innovation, and USP in forms of Videos and PDF links.
 - It provides unique visibility to them in front of the entire startup ecosystem.
 - The startups act as the flag bearers of good quality of Indian startups.
- **Networking:** It is also an online networking portal which offers various social and digital connect opportunities on the platform.
 - Each startup profile is linked with Social Media Pages, LinkedIn URLs
 of founders and a direct Connect button which facilitate networking
 opportunities between users.
- **Discovery:** It is an online discovery platform for one of the most credible startups out there in our ecosystem.
 - The platform is powered with various tools from a powerful search to an intuitive filter which will enable seamless discovery of startups for stakeholders.
- **Star Repository:** It is an all-star repository as the platform contains startups who have already proved their capabilities via different means (winning competitions, selling on GeM etc.)

Benefits of Startup India Showcase Platform

Investors/Accelerators

 Discovery of startups with credible profiles for potential investment and acceleration opportunities;





• First reference point for new innovations and industry trends across the country

Corporates/PSUs

- Pipeline of ready innovative solutions for strategic deployment in your business units;
- Startup products and services for new business opportunities and cost/efficiency improvement; and
- Potential partners for international corporate looking to work with startups in India and expanding the innovation ecosystem across boundaries

Government Stakeholders

- Discover startups that can improve public-service delivery and solve relevant problems under the ambit of Ministry
- Startup Pool that can work with Urban Local Bodies to improve the quality of life of citizens and address local problems in the fields of sanitation, health, waste, water, traffic, taxation, etc.

Startups

- Get visibility and recognition through India's All-star Startup repository
- Discover fellow startups for networking and growth opportunities
- Get pilot opportunities from Governments, Corporate, and International organizations
- Get fund raising opportunities from relevant investors

4.27 3 MONUMENTS OF ANDHRA PRADESH IDENTIFIED AS "ADARSH SMARAK" FOR PROVIDING ADDITIONAL FACILITIES: SHRI G KISHAN REDDY

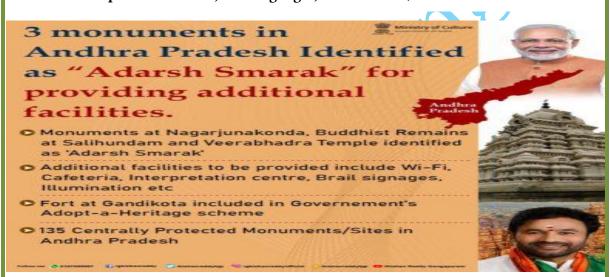
Recently, the Ministry of Culture has identified three monuments of Andhra Pradesh as "Adarsh Smarak".





Highlights

- The three monuments identified are:
 - Monuments at **Nagarjunakonda**, District Guntur;
 - Buddhist Remains at Salihundam, District Srikakulam; and
 - Veerabhadra Temple at Lepakshi in District Anantapuram
- The Adarsh Smarak is aimed at providing additional facilities like Wi-Fi, Cafeteria, Interpretation centre, Brail signages, Illumination, etc.



Monuments at Nagarjunakonda

- It is the name of a **big rocky hat-topped hill** on the right bank of the **Krishna River** in the Palnad taluk.
- It is named after the renowned Buddhist Monk Nagarjuna (the famous Buddhist scholar and the contriver of Mahayana Buddhism).
- It is an important Buddhist learning centre, flora and fauna rich location and an archaeological paradise as well.





- It is flaunted with Stone Age tools, Buddhist Stupa, Statues, Pillars, Monasteries, Waterfalls, Forest, and Museum.
- It is known as one of the richest Buddhist Learning Centre and has many caves that exhibit Buddhist carvings.
- The Nagarjunasagar Dam is the tallest masonry dam in the world.
- The excavated remains of the Buddhist civilization were reconstructed and preserved at a museum on the island situated in the midst of the man-made Nagarjunasagar Lake.
- The main stupa of Nagarjunakonda named Mahachaitya is believed to contain the sacred relics of the Buddha.

Buddhist Remains at Salihundam

- It is a site of impressive **Buddhist monuments** dating back to 2nd century AD.
- It is a historically renowned village lying atop the hill on the south bank of Vamsadhara River.
- There are numerous Buddhist stupas nestled on a hill amid the picturesque surroundings.
- Four stupas, Relic caskets and architectural shrines were discovered during digging
 performed by the state authorities.
- All of the remnants were built between 2nd century and 12th century reflecting different times of Buddhism Mahayana, Theravada and Vajrayana.

Veerabhadra Temple

• It is situated in **Lepakshi**, in the **Anantpur District** of Andhra Pradesh.





- The presiding deity worshipped here is Lord Veerabhadra Swamy, the fiery god created by Lord Shiva.
- It is famous for its sculptures and archaeological magnificence shaped by the artists
 of Vijayanagara Empire.
- The temple can be divided into three sections 'Mukha Mandapa', 'ArthaMandapa' and 'GarbhaGriha', and the 'Kalyana Mandapa'.
- The temple is thought by many to have been built between 1530 and 1545 by Virupanna and Veeranna.

It has an open-air **Kalyana Mandapam (wedding hall)**, where the wedding of Shiva and Parvati is believed to have taken place in the presence of other gods and goddesses.

4.28 LAW MINISTRY CLEARS RULES FOR VINTAGE CARS

Recently, the Ministry of Road Transport and Highways has come up with new **norms and** regulations for vintage vehicles.

Genesis

- In November 2020, the Ministry of Road Transport and Highways released a draft notification for public comments and objections on a proposed vintage vehicles policy.
- It sought to bring in a strict regime of regulation, like setting up committees of stateand Union Territory-level officers to decide what is vintage and what is not.
- It also proposed **far-reaching restrictions** on use.

NEW VINTAGE VEHICLES POLICY





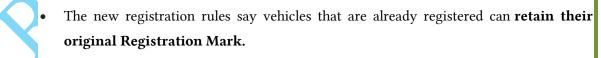


Definition of Vintage Vehicles

- All two- and four-wheelers that are 50+ years old and have been maintained in their original form will be defined as vintage motor vehicles.
- It will not be driven for regular and commercial purposes and will have to get a special registration.

Key Provisions

- The new registration rules for vintage vehicles say vehicles that are already registered
 can retain their original Registration Mark and fresh registrations will take place
 under a unique VA series.
- The **application for registration or re-registration** shall be made as per Form 20 and shall be accompanied by an insurance policy, fee, bill of entry in case of imported vehicles, and an old RC in case of an already registered vehicle in India.
- The state registering authority shall issue a **certificate of registration** as per Form 23A, within 60 days.



Importance of New Vintage Vehicles Policy





- The new rules shall provide a hassle-free process along with salient features such as retention of old numbers for already registered vehicles and a VA series for fresh registrations.
- It relieved the owners as now they can **keep their old vehicles which will definitely give life to the classic car** and save the emotional sentiments attached to them.
- The vintage vehicles are **insulated from the scrappage policy**.
 - If a **vehicle is more than 15 years old but within 50 years**, the owner can continue to keep it by passing fitness tests every five years.

4.29 DRDO CONDUCTS BACK-TO-BACK SUCCESSFUL TESTS OF AKASH-NG

Recently, the **Defence Research & Development Organisation (DRDO)** has successfully flighttested the **Akash-NG Missile**.

Akash-NG Missile

Speed and precision

- Akash NG detects enemy fighters up to 80 km away
- ▶ By the time the enemy aircraft is 50 km away, Akash NG's computers have calculated launch trajectory and impact point, and the missile is launched
- Missile blazes its way to the impact point 30 km away and strikes the target in just over a minute
- It is a New Generation surface-to-air Missile.
- It has been developed by **Defence Research & Development Laboratory (DRDL)**, **Hyderabad** in collaboration with other DRDO laboratories.





- The new version of the Akash missile (Akash-NG) can strike targets at a distance of around 60 km and fly at a speed of up to Mach 2.5.
- It detects enemy fighters at ranges out to 80 km.
- It has been brought down from the legacy Akash's weight of 700 kg to a sleek 350 kg which allows the Akash NG launchers to carry more than the three missiles.
- It is aimed at intercepting high maneuvering low RCS (Radar Cross Section) aerial threats.
- It will prove to be a force multiplier for the air defence capability of the Indian Air Force.
- It is engineered to shoot down high-performing fighter aircraft.
- The new version has a two-pulse, solid rocket motor instead of the old ramjet that powered the legacy Akash missile.

4.30 DRDO SUCCESSFULLY FLIGHT TESTS HOME-GROWN MAN-PORTABLE ANTI-TANK GUIDED MISSILE

Recently, the Defence Research & Development Organisation (DRDO) has successfully flight-tested Man Portable Antitank Guided Missile (MPATGM).

Man Portable Antitank Guided Missile (MPATGM)

- It is an **indigenously** developed **low weight**, **fire and forget missile**.
- The missile is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics.
- It brings the development of indigenous third generation man portable Anti-Tank
 Guided Missile close to completion.





 The missile is being developed to strengthen the combat capabilities of the Indian Army.

4.31 CABINET APPROVES PRODUCTION-LINKED INCENTIVE (PLI) SCHEME FOR SPECIALTY STEEL

Recently, the Union Cabinet has approved the **Production Linked Incentive (PLI) Scheme for specialty steel**.

What is Specialty Steel?

- It is value added steel wherein normal finished steel is worked upon by way of
 coating, plating, heat treatment, etc to convert it into high value added steel.
- It can be used in various strategic applications like **Defence**, **Space**, **Power**, **apart from automobile sector**, specialized capital goods etc.

Production Linked Incentive (PLI) Scheme for Specialty Steel





PLI scheme for specialty steel Objective: Production of high grade Incentives: Rs 6,322 crore to be Eligible manufacturers to get

- terms of technology and move up
- Potential for generating 5.25 lakh





- The duration of the scheme will be five years i.e. from 2023-24 to 2027-28.
- The **five categories of specialty steel** which have been chosen in the PLI Scheme are:
 - Coated/Plated Steel Products
 - High Strength/Wear resistant Steel
 - Specialty Rails
 - Alloy Steel Products and Steel wires
 - **Electrical Steel**
- There are **3 slabs of PLI incentives**, the lowest being 4 % and highest being 12% which has been provided for electrical steel (CRGO).





• Any company registered in India, engaged in manufacturing of the identified 'specialty steel' grades eligible to participate.

Benefits of PLI Scheme for Specialty Steel

- It is expected to bring in investment of approximately ₹40,000 crores and capacity addition of 25 MT for specialty steel.
- It will give employment to about 525,000 people of which 68,000 will be direct employment.
- It is expected that the specialty steel production will become 42 million tonnes by the end of 2026-27.
- It will ensure that approximately 2.5 lakh crores worth of specialty steel will be
 produced and consumed in the country which would otherwise have been imported.
- The export of specialty steel will become around **5.5 million tonnes as against the current 1.7 million tonnes of specialty steel** getting FOREX of Rs 33,000 crore.

Need for PLI Scheme for Specialty Steel

- The specialty steel has been chosen as the target segment because out of the production
 of 102 million tonnes steel in India in 2020-21, only 18 million tonnes value added
 steel/specialty steel was produced in the country.
- Out of 6.7 million tonnes of imports in 2020-21, approx. 4 million tonnes import was
 of specialty steel alone resulting in FOREX outgo of Approx. Rs. 30,000 crores.
- India will move up the steel value chain and come at par with advanced steel
 making countries like Korea and Japan by becoming Aatmanirbhar in producing
 specialty steel.





It will ensure that the basic steel used is 'melted and poured' within the country which
means that raw material (finished steel) used for making specialty steel will be made in
India only.

4.32 TWO POLICEMEN SENTENCED TO LIFE IMPRISONMENT FOR KARNAL CUSTODIAL DEATH

Recently, a special CBI court on July 16 convicted two policemen and awarded them **life sentences for the custodial death of a murder accused**, who was burnt alive inside a police station in Karnal.

The judgment relied heavily on the 'dying declaration' made by the victim prior to his
death.

Dying Declaration?





Dying Declaration - What it is?

It is the statement, oral or written of a person, relating to him / her death or as to the circumstances leading to his / her death, when that person dies subsequent to the making of such statement.

- It is the statement of a person since deceased,
- When proved, it may be used, as evidence.
- It is a kind of hearsay evidence, because the declarant (maker of the statement) has died and somebody else appears to say what the deceased stated about his / her death.

Note: "Hearsay Evidence" - In this context-means " derivative or second-hand or unoriginal evidence", that is, the evidence given by a person, not on the basis of his own knowledge but on the authority of another person.

- The declarant, being dead, the veracity of his / her statement cannot be tested by cross-examination.
- Even then, it is received in evidence and as such, it is an exception to the rule that hearsay evidence is inadmissible (vide Section 60(m) of the Indian Evidence Act).
 - The law presumes that **no person will meet their maker with a lie** in their mouth.
 - The **Section 32 of the Indian Evidence Act, 1872** deals with cases in which statement of relevant fact is made by a person who is dead or cannot be found.
 - The general rule under Section 60 of the Act is that all **oral evidence must be direct** i.e. he heard it, saw it or perceived it.
 - The grounds of admission under a dying declaration have been based on two broad rules:
 - The victim being generally the only principal eye-witness to the crime; and





- The sense of impending death, which creates a sanction equal to the obligation of an oath
- The grave position of the person is also the reason in law to accept veracity of his statement, dispensing with the requirements of oath and cross-examination.
 - An exclusion of this dying declaration would also leave the court without a scrap of evidence.

Reasons to set aside Dying Declaration

- It is worthwhile to note that the accused has no power of cross-examination.
- It is the reason the courts have always insisted that the dying declaration be of such a nature as to inspire full confidence of the court in its correctness.
- The courts are on guard to check if the statement of the deceased was a result of either tutoring, or prompting or a product of imagination.
- The court in such cases must be further satisfied that the deceased was in a fit state of mind after a clear opportunity to observe and identify the assailant.
- The courts look to determine that such declarations are voluntary, unless it is
 proved that the declaration was tainted with animosity and a result of tutoring.
- The Supreme Court had even noted that the **dying declaration made through signs**, **gestures or by nods are admissible** as evidence.

Who can record dying declarations?





Who may record "Dying Declaration"?

- Generally speaking, it may be recorded by anybody, including a police officer or a private individual.
- Law has not indicated who is competent or who is incompetent to record "Dying Declaration".
- Admissibility is one thing, credibility is another.
- What has been said in clause (a) above is true from the angle of admissibility but it does not hold good from the view -point of credibility.
- A Magistrate inspires greater confidence and deserves more credence. Hence, efforts should be made to secure the services of a Magistrate for recording of a Dying Declaration.
 - Anyone can record the dying declaration of the deceased as per law.
 - The law does not compulsorily require the presence of a Judicial or Executive Magistrate to record a dying declaration.
 - A dying declaration cannot be relied upon as the solitary piece
 of evidence unless recorded by a Judicial or Executive Magistrate.
 - A dying declaration recorded by a Judicial or Executive Magistrate will muster additional strength to the prosecution case though.
 - A dying declaration may in several cases be the primary piece of evidence to prove the genesis of occurrence.





- The only requirement for such a declaration to be held perfectly accountable in court
 is for the victim to volunteer the statement and be of conscious mind.
- The person who records the dying declaration must be satisfied that the victim is
 in a fit state of mind.

Do dying declarations always need corroboration?

- A dying declaration can form the sole basis of conviction and the rule requiring corroboration is merely a rule of prudence.
- The judgments have noted that it is neither rule of law nor of prudence that dying declaration cannot be acted upon without corroboration.
- If the court is satisfied that the **dying declaration is true and voluntary** it can base conviction on it, without corroboration.
- The court has to scrutinize the dying declaration carefully and must ensure that the
 declaration is not the result of tutoring, prompting or imagination.
 - It should not be acted upon without corroborative evidence where a dying declaration is suspicious.
- A dying declaration which suffers from infirmity cannot form the basis of conviction and merely because a dying declaration does not contain the details as to the occurrence.

4.33 ASHUTOSH KAUSHIK'S CASE, AND THE 'RIGHT TO BE FORGOTTEN' IN INDIA

Recently, Ashutosh Kaushik, who won reality shows Bigg Boss in 2008 and MTV Roadies 5.0, has approached the Delhi High Court with a plea saying that his videos, photographs and articles etc. be removed from the internet citing his "**Right to be Forgotten**".

Right to be Forgotten?





Reasons for a Right to Be Forgotten Request

- Data exists on the internet that is old, outdated, or otherwise not currently relevant
- 2. The data subject decides that the data controller no longer has rights to access their data and data isn't in the public domain
- Someone stole the data or changed the data
- A judge or other judicial body ruled this data deleted





- It falls under the purview of an **individual's right to privacy**, which is governed by the **Personal Data Protection Bill** that is yet to be passed by Parliament.
- It goes in sync with the "Right to Privacy", which is an integral part of Article 21 of the Constitution, which concerns the right to life.
- In 2017, the court said that the right to privacy is protected as an intrinsic part of
 the right to life and personal liberty under Article 21 and as a part of the freedoms
 guaranteed by Part III of the Constitution.

Right to be Forgotten and Personal Data Protection Bill







- The Bill was introduced in Lok Sabha in 2019 and it aims to set out provisions meant for the protection of the personal data of individuals.
- Clause 20 under Chapter V of this draft bill titled "Rights of Data Principal" mentions the "Right to be Forgotten".
 - It states that the "data principal (the person to whom the data is related) shall have the right to restrict or prevent the continuing disclosure of his personal data by a data fiduciary".
- Under the Right to be forgotten, users can de-link, limit, delete or correct the
 disclosure of their personal information held by data fiduciaries.
 - A data fiduciary means any person, including the State, a company, any juristic entity or any individual who alone or in conjunction





with others determines the purpose and means of processing of personal data.

- The sensitivity of the personal data and information cannot be determined independently by the person concerned, but will be overseen by the Data Protection Authority (DPA).
- The draft bill gives some provisions under which a data principal can seek that his
 data be removed, but his or her rights are subject to authorization by the Adjudicating
 Officer who works for the DPA.

Right to be Forgotten in other countries

- The Center for Internet and Society notes that the "right to be forgotten" gained prominence when the matter was referred to the Court of Justice of European Union (CJEC) in 2014 by a Spanish Court.
- In the European Union (EU), the **right to be forgotten empowers** individuals to ask organisations to delete their personal data.
 - It is provided by the EU's General Data Protection Regulation (GDPR), a law passed by the 28-member bloc in 2018.
 - According to the EU GDPR's website, the right to be forgotten
 appears in Recitals 65 and 66 and in Article 17 of the regulation,
 which states:
- The data subject shall have the right to obtain from the controller the erasure of
 personal data concerning him or her without undue delay and the controller shall
 have the obligation to erase personal data without undue delay.
- The EU's highest court ruled in 2019 that the 'right to be forgotten' under European law would not apply beyond the borders of EU member states.

4.34 A BILL TO STOP STRIKES AT ORDNANCE FACTORIES





Recently, the Minister of State for Defence Ajay Bhatt had introduced the **Essential Defence**Services Bill in the Lok Sabha.

Essential Defence Services Bill

- It is aimed at preventing the staff of the government-owned ordnance factories from going on a strike.
 - Around 70,000 people work with the 41 ordnance factories around the country.
- It is meant to provide for the maintenance of essential defence services so as to secure the security of nation and the life and property of public at large and for matters connected therewith or incidental thereto.
- It noted that since it is essential that an uninterrupted supply of ordnance items to
 the armed forces be maintained for the defence preparedness of the country and
 the ordnance factories continue to function without any disruptions.
- It was felt necessary that the Government should have power to meet the
 emergency created by such attempts and ensure the maintenance of essential defence
 services in all establishments connected with defence.

Features of Essential Defence Services Bill

- It empowers the government to declare services mentioned in it as essential defence services:
 - The **cessation of work** of which would prejudicially affect the production of defence equipment or goods; or
 - The operation or maintenance of any industrial establishment or unit engaged in production of goods or equipment required for any purpose connected with defence; or





- **Repair or maintenance** of products connected with defence
- It also **prohibits strike and lockouts** in "any industrial establishment or unit engaged in essential defence services".

Need for Essential Defence Services Bill

- The government had announced corporatization of the Ordnance Factory Board, under which the 41 factories ammunition and other equipment to the armed forces will become part of seven government owned corporate entities.
- The OFB was directly under the **Department of Defence Production** and worked as an arm of the government.
- The government has claimed that the move is aimed at improving the efficiency and accountability of these factories.

Impact of Essential Defence Services Bill

- It has a direct bearing on around 70,000 employees of the 41 ordnance factories around the country, who are **unhappy with the corporatization of OFB**, fearing that it will impact their service and retirement conditions.
- It also mentioned that there should be **no change in the service condition of the** around 70,000 employees of the OFB.
- The employee unions and associations had threatened to go on strike last year as
 well, when the government had declared that it will start the process towards OFB
 corporatization.

4.35 RAMAPPA GETS WORLD HERITAGE TAG; PM LAUDS TS PEOPLE

Recently, the Prime Minister has expressed happiness on UNESCO declaring **Kakatiya Ramappa Temple** a **World Heritage site.**





• With this, India has 39 sites on the UNESCO's World Heritage List, and Archaeological Survey of India (ASI) is now the custodian of 23 world heritage sites.

Kakatiya Ramappa Temple

- It was built during the rule of **Kakatiya dynasty**.
- Rudreshwara, popularly known as Ramappa Temple, is located in the village of Palampet approximately 200km north-east of Hyderabad, in the State of Telangana.
- It is the main Shiva temple in a walled complex built during the Kakatiyan period (1123–1323 CE) under rulers Rudradeva and Recharla Rudra.
- The presiding deity here is **Ramalingeswara Swamy**.
- The construction of the **sandstone temple** began in 1213 CE and is believed to have continued over some 40 years.
- It features decorated beams and pillars of carved granite and dolerite with a
 distinctive and pyramidal Vimana (horizontally stepped tower) made of lightweight
 porous bricks.
- Its sculptures of high artistic quality illustrate regional dance customs and Kakatiyan culture.
- It is located at the **foothills of a forested area and amidst agricultural fields**, close to the shores of the Ramappa Cheruvu.
- The Ramappa temple stands on a 6 feet high star-shaped platform with walls, pillars
 and ceilings adorned with intricate carvings that attest to the unique skill of the
 Kakatiyan sculptors.

UNESCO's decision on Kakatiya Ramappa Temple





- It is nominated under Criterion i (Masterpiece of human creative genius) and Criterion
 iii (bearing a unique or at least an exceptional testimony to a cultural tradition, which is living or which has disappeared).
- The International Council of Historic Monuments and Sites (ICOMOS) had evaluated Ramappa's heritage status and made some recommendations.

4.36 KARGIL VIJAY DIWAS

It was 22 years ago on 26 July, **the Indian Army recaptured** all the Indian posts in Kargil that had been occupied by Pakistan's army. Since then, **26 July** has been observed annually to commemorate the sacrifices made by soldiers in this war and celebrated as **Kargil Vijay Diwas**.

Genesis

- The war took place between May and July of 1999 in Jammu and Kashmir's Kargil district.
- The conflict is believed to have been orchestrated by the then Pakistan army chief
 General Pervez Musharraf without the knowledge of the then Pakistan Prime Minister
 Nawaz Sharif.
- It began with the infiltration of both regular Pakistani troops and terrorists into Indian Territory.
- The infiltrators positioned themselves in key locations that gave them a strategic advantage during the start of the conflict.
- Based on information from local shepherds, the Indian Army was able to ascertain the points of incursion and launch "Operation Vijay".
 - The Army declared the mission successful on **26 July 1999**; since then the day has been celebrated annually as **Kargil Vijay Diwas**.

4.37 EMISSIONS IN ALIGNMENT WITH SBTi





Tata Power on 26 July 2021 said it has committed to reducing emissions in alignment with the Science Based Targets initiative (SBTi). SBTi is a project which drives ambitious climate action in the private sector by enabling companies to set science-based emissions reduction targets.

- It is a partnership between CDP (Carbon Disclosure Project), the United Nations
 Global Compact, World Resources Institute (WRI), the World Wide Fund for
 Nature (WWF) and We Mean Business Coalition.
- The company's commitment to the SBTi has been accepted and published under the companies taking action category on the website.
- Mitigating the impact of global warming requires swift and strong action. Tata Power
 has committed to SBTi and is working on an ambitious plan to drive the transition to
 decarbonized energy models, aiding the global climate action agenda.
- The latest climate science sends a clear warning to curb temperature rise to avoid the catastrophic impacts of climate change.
- The power sector will play a key role in **decarbonising** the global economy and meeting the goals of the **Paris Agreement**.
- To lead reformation of the process for sustainable power, Tata Power has pledged to set scientific targets as proposed by SBTi.
- It is the **first Indian power company** to **commit to carbon neutrality before 2050** and is accelerating the transition to a sustainable future.
- Tata Power has already announced the planned phase out of coal-based capacity.

4.38 STONE AGE TOOLS DISCOVERED

Mangar, Haryana: Prehistoric cave paintings belonging to the Paleolithic era, and rock shelters as well as tools and tool-making equipment, presumably dating back to the lower or early Paleolithic





era have been found hiding in plain sight in the Aravallis. The **Paleolithic era, or the Old Stone Age**, dates back to **10,000 BC** when humans still lived as hunters and gatherers.

- Tools belonging to the Stone Age have been found in rock shelters as well as in open-air sites, spread across nearly 5,000 hectares, Banani Bhattacharya, Deputy Director, Haryana Department of Archaeology and Museums said.
- Located in the Aravalli hills near Mangar Bani forest along the Gurugram-Faridabad stretch in Delhi-NCR, the discovery is monumental as it changes the understanding of Haryana's history, pushing it back further by several thousand years than we currently know.
- Haryana is known as the **cradle of Indian civilisation**. Earlier, 28 sites dating back to the Harappan and pre-Harappan era had been discovered in the state.
- However, cave paintings and rock art sprawling in such a large area have been discovered for the first time. This discovery suggests that the history here could be 1 lakh years old.

The **Aravalli range** is known for **housing prehistoric remains**, the latest discovery is the first time rock paintings have been found here.

4.39 PM MODI LAUNCHES NEW INITIATIVES UNDER NEP 2020

The new National Education Policy (NEP) is one of the major factors in the grand exercise of nation-building and assures the youth that the country supports their aspirations, Prime Minister Narendra Modi said.

Addressing a programme on the completion of one year of the NEP, the PM launched various schemes, including an **Academic Bank of Credit (ABC)** in **higher education**, a competency-based assessment system for the school sector and a framework for internationalisation of Indian education.





These initiatives will mark a significant step towards realisation of the goals of NEP 2020 and will make the education sector more vibrant and accessible. National Education Policy (NEP) 2020 One Year Of NEP2020 Ministry of Education #TransformingEducation ACADEMIC BANK OF CREDIT AND MULTIPLE ENTRY EXIT Academic Bank of Credit is Envisaged as a digital bank that holds the credit earned by a student in any course A national-level digital facility for promoting academic mobility through formal system of Credit Accumulation, Credit Transfer and Credit Redemption Instrument for facilitating Multidisciplinary and Holistic Education and Multiple Entry and Multiple Exit The National Education Policy (NEP) 2020, which was approved by the Union Cabinet last year, replaced the National Policy on Education framed in 1986. It is aimed at for transformational reforms wav in school and higher paving education systems to make India a global knowledge superpower. the foundational Built on pillars of access. equity, quality, **affordability** and **accountability**, this policy is aligned to the **2030** Agenda for Sustainable Development. NEP 2020 has been formulated after an unprecedented process of consultation that involved nearly over two lakh suggestions from 2.5 lakhs Gram Panchayats, 6,600 Blocks, 6,000 Urban Local Bodies, 676 districts. The ministry of education initiated an unprecedented collaborative, inclusive and highly participatory consultation process from January 2015. In May 2016, 'Committee for





Evolution of the New Education Policy' under the chairmanship of **T.S.R. Subramanian**, former Cabinet secretary, submitted its report. Based on this, the ministry prepared 'Some Inputs for the Draft National Education Policy, 2016'.

• In June 2017, a 'Committee for the Draft National Education Policy' was constituted under the chairmanship of Dr. K. Kasturirangan, which submitted the Draft National Education Policy, 2019.



Initiatives launched on first anniversary of NEP 2020

Academic Bank of Credit

- An Academic Bank of Credit (ABC) would digitally store the academic credits earned from various recognised higher education institutions (HEI) so that the degrees from an HEI can be awarded taking into account credits earned.
- Academic Bank of Credit is envisaged as a digital bank that holds the credit earned by a student in any course.





- The UGC has issued regulations for establishment and operation of Academic Bank of Credits in higher education.
- It will be a national-level digital facility for promoting academic mobility through a formal system of credit accumulation, credit transfer and credit redemption.
- ABC is a bank for academic purposes on the pattern of commercial banks for financial purposes with students as academic account holders to whom ABC shall provide a variety of services.
- It shall be a mechanism to facilitate the students to choose their own learning path to attain a degree/diploma/post-graduation, etc, working on the principle of **multiple entry-multiple exit** as well as anytime, anywhere, and any level learning.
- ABC shall provide significant autonomy to the students by providing extensive choice of courses for a programme of study, flexibility in curriculum.
- ABC will not be a degree-awarding organisation. The statutory degree-awarding
 power shall continue to be vested with the eligible higher education institutions which
 have registered with ABC.

Vidya Pravesh







- Vidya Pravesh Guidelines for Three-month Play-based School Preparation
 Module for Grade 1 Children, has been developed as per the recommendations of the
 NEP 2020.
- The purpose is to help teachers ensure that all children are exposed to a warm and welcoming environment when they enter Grade 1, leading to their smooth transition to school.
- The guidelines intend to create a stimulating learning environment that is joyful, safe, ensures emotional security and provides support to all the children in school and at home.
- Vidya Pravesh is an integral part of NIPUN Bharat A National Mission on Foundational Literacy and Numeracy (FLN Mission) of the government.





Objectives of Vidya Pravesh:

The objectives of the three-month preparation module are:

- To promote school preparedness in all children coming to Grade 1 from diverse backgrounds.
- To ensure a smooth transition of children to Grade 1.
- To provide play-based, age and developmentally appropriate learning experiences in a joyful and stimulating environment leading to holistic development.
- To prepare children with the cognitive and linguistic competencies which are
 prerequisite for learning to read, write and develop number sense through a play-based
 approach.

Indian Sign Language as a Subject

- It launches **Indian Sign Language as a subject** at **secondary-level** by National Institute of Open Schooling (**NIOS**).
- It aims to develop national and state curriculum materials and digital contents for use by hearing-impaired students.
- It will provide digital content for secondary and senior secondary-level with 700 videos in sign language by NIOS and DIKSHA.
- As many as 525 videos in sign language will be provided for primary classes by NCERT and DIKSHA.

NISHTHA 2.0







- NISHTHA is a programme under Samagra Shiksha a flagship programme of the ministry of education.
- It is an **integrated programme of teacher training** designed by NCERT.
- The programme will benefit 10 lakh secondary school teachers, students and school heads.
- Teachers are trained to use art as pedagogy leading to increased creativity and innovation among students.
 - Teachers are also trained to develop and strengthen personal-social qualities of students for their holistic development.





- Teachers will adopt activity-based learning and move away from rote learning to competency based learning.
- There will be 68 modules, including generic and subject-specific modules on DIKSHA portal.

Objectives of NISHTHA 2.0:

- Improvement in learning outcomes of the students.
- Creation of an enabling and enriching inclusive classroom environment.
- Teachers become alert and responsive to the social, emotional and psychological needs
 of students as first level counselors.
- Creation of a **healthy and safe** school environment.
- Integration of ICT in teaching, learning and assessment.
- Developing stress free school-based assessment focused on development of competencies.
- Transformation of the heads of schools into providing academic and administrative leadership for the schools for fostering new initiatives.

AI for All

- CBSE, in collaboration with Intel, has prepared a self-paced learning programme to help demystify artificial intelligence (AI) in an inclusive manner.
- AI For All is a four-hour, micro-learning programme which is as applicable to a student, a stay-at-home parent as it is to a professional in any field or even a senior citizen.
- The AI appreciation segment helps learners get introductory knowledge of the common domains of AI and start building personal learning plans.







- AICTE will now allow **technical education** in regional languages.
- For helping the institutes, rigorous 'Artificial Intelligence Indian Language
 Translation Tool' has developed by AICTE which will aid in developing contents in
 twelve different regional languages.
- This will increase access and Gross Enrolment Ratio (GER) and also usage of Indian languages.
- As many as 14 institutes from eight states in five different languages have been given additional 60 seats each in engineering and technology subjects from the 2021-22 academic session.

Guidelines for Internationalisation of Higher Education





- The NEP extensively focuses on attaining the highest global standards in the quality of higher education. Further, it reinforces the need to attract a greater number of international students and achieve the goal of "internationalisation at home".
- With the vision of increased internationalisation of higher education in India, University
 Grants Commission has formulated these 'Guidelines for Internationalisation of Higher
 Education' within the framework of NEP 2020.
- These guidelines will provide a broader roadmap and enable the higher education institutions in transforming the higher education system in critical areas of internationalisation.
- It will help in achieving the desired outcome of making India's higher education system globally competitive in offering quality higher education.

The objectives of these guidelines are:

- To make India an **attractive study destination** for foreign students.
- To **foster international competencies** in our faculty and students.
- To develop a global mindset of our learners and shape them as global.
- To promote active linkage between Indian and foreign institutions.
- To **improve global ranking** in internationalisation indicators.

National Digital Education Architecture (NDEAR)







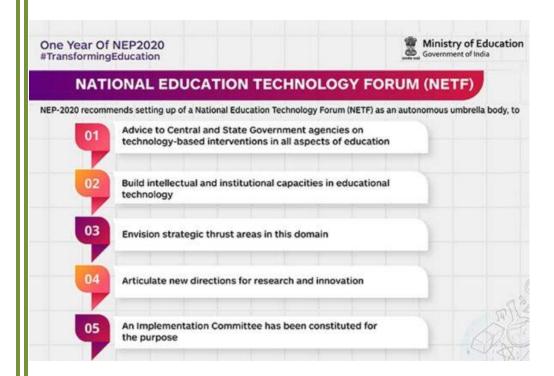
- Union Budget 2021-22 has laid a major emphasis on strengthening country's digital infrastructure for education by announcing setting up of a National Digital Educational Architecture (NDEAR) within the context of a "digital first" mindset where the digital architecture will not only support teaching and learning activities but also educational planning, governance administrative activities of the Centre and states/Union Territories.
- It has been conceived as unifying National Digital Infrastructure to energise and catalyse the education system and the core idea is to facilitate achieving goals laid down by NEP 2020.
- NDEAR is not a system or platform, but an architectural blueprint for the education ecosystem.





- It is a set of principles, standards, specifications, building blocks and guidelines that enable multiple entities to create parts of the digital education ecosystem.
- It will provide diverse education eco-system architecture for development of digital
 infrastructure, a federated but interoperable system that will ensure autonomy of all
 stakeholders, especially states and UTs.
- NDEAR will be beneficial for both Centre and states in planning, administering and
 governing school education as well as to teachers, students and schools for having a
 seamless digital learning experience.
- The institutional structure, governance framework, technology and data of NDEAR will benefit the entire student and teacher community.

National Education Technology Forum (NETF)



National Educational Technology Forum (NETF) is an autonomous body to provide a
platform for free exchange of ideas on the use of technology to enhance learning,





assessment, planning, administration and so on, both for school and higher education.

The aim of the NETF will be to facilitate decision making on the induction, deployment
and use of technology by providing to the leadership of education institutions, state and
central governments and other stakeholders the latest knowledge and research as well as
the opportunity to consult and share best practices.

The NETF will have following functions:

- 1) To provide independent **evidence-based advice to central and state government** agencies on technology-based interventions.
- 2) To build intellectual and institutional capacities in education technology.
- 3) To **envision strategic thrust areas** in this domain;
- 4) To articulate new directions for research and innovation.
- 5) To lay down standards of content, technology, and pedagogy for online/digital teaching-learning. These standards will help to formulate guidelines for e-learning by states, boards, schools, HEIs, etc.
- 6) To maintain regular flow of authentic data from multiple sources including educational technology innovators and will engage with diverse set of researchers to analyse the data.
- 7) To **conduct multiple regional and national conferences**, workshops, etc to solicit inputs from national and international educational technology researchers, entrepreneurs and practitioners.
- 8) To Identify technological interventions for the purpose of improving teaching-learning and evaluation process, supporting teacher preparation and professional development, enhancing educational access, and streamlining educational planning, management, and administration including process related to admissions, attendance, assessments, etc.





9) To categorise emergent technologies based on their potential and estimated frame for disruption, and periodically present this analysis to the ministry of education.

Structured Assessment for Analyzing Learning levels (SAFAL)



- Structured Assessment for Analyzing Learning levels (SAFAL) is a competency-based assessment for Grades 3, 5, and 8 introduced by the Central Board of Secondary Education (CBSE).
- SAFAL will ensure progress throughout school years by providing diagnostic information about students' learning to schools and thus, support school education to move towards competency-based education.





- SAFAL will be conducted on a pilot basis in CBSE schools for students in Grades 3, 5 and 8 during the academic year 2021-22.
- To track progress throughout the school years for the benefit of students, parents, teachers, principals, and the entire schooling system in planning improvements to schools and teaching-learning processes, all students will take school examinations in Grades 3, 5, and 8 which will be conducted by the appropriate authority.
- These examinations would test achievement of basic learning outcomes, through assessment of core concepts and knowledge from the national and local curricula, along with relevant higher-order skills and application of knowledge in real-life situations, rather than rote memorisation.
- The Grade 3 SAFAL results will identify areas of intervention to improve foundational literacy and numeracy among learners and help develop reforms for the NIPUN Bharat Mission.
- SAFAL results will not be used in any manner by schools for promotion of students to the next grade.
- The overall results of school examinations will be used only for developmental purposes of the school education system.

4.40 POWERS AND PRIVILEGES OF THE HOUSE OF LEGISLATURES

Recently, the Supreme Court has rejected the Kerala government's plea to withdraw prosecution against six Left Democratic Front (LDF) MLAs who were involved in the 2015 Kerala Assembly ruckus.

The part of the government's argument for lifting charges against the accused MLAs was that they are protected from prosecution by **Article 194 of the Constitution**.

Article 194 of the Constitution?





- Article 194 deals with the powers and privileges of the House of Legislatures and of its members and committees.
 - It says that no member of the Legislature of a State shall be liable to any proceedings in any court in respect of anything said or any vote given by him in the Legislature or any committee thereof.
 - It says that no person shall be so liable in respect of the publication by or under the authority of a House of such a Legislature of any report, paper, votes or proceedings.
- The parliamentary privilege refers to the **right and immunity enjoyed by** legislatures, in which legislators are granted protection against civil or criminal liability for actions done or statements made in the course of their legislative duties.

Supreme Court views on Article 194 of the Constitution

- The SC said that **legislative privileges available to the members of a House cannot extend to immunity** from application of criminal law.
- The state High Court upheld a trial court decision that rejected the request to withdraw
 the prosecution of the six MLAs under the Indian Penal Code (IPC) and
 Prevention of Damage to Public Property Act 1984.
- Justice Chandrachud said that **privileges and immunities are not gateways to claim exemptions** from the general law of the land.
- The court said that relying on the provisions of Article 194 was a betrayal of the
 provisions of the Constitution and was based on a misconception that elected
 members of the legislature stand above the general application of criminal law.

Powers and Privileges of the House of Legislatures

 The Legislative Privileges are the rights belonging to the Legislature for effective discharge of their legislative functions.





- Article 105 and Article 194 of the Indian Constitution lay down the powers, privileges and immunities of Members of Parliament (MPs) and State Assemblies respectively.
- These immunities are modelled on the **Privilege Pattern of the British Parliament**.
 - The MPs are granted freedom of speech during any proceeding in the House.
 - No MP would be liable to any court proceeding for anything said or done or any vote given in the House.

5.1 SC DIRECTS CENTRE, STATES TO FILE REPORT REGARDING APPOINTMENT OF INFORMATION COMMISSIONERS IN CIC

Recently, the Supreme Court has given four weeks to the Centre and states to **report the status on vacancies** in **Central Information Commission (CIC) and State Information Commissions.**

Central Information Commission (CIC)

- It was **established by the Central Government** in 2005.
- It was constituted through an Official Gazette Notification under the provisions of the Right to Information Act (2005).
- It is not a constitutional body.
- It is a **high-powered independent body** which inter alia looks into the complaints made to it and decides the appeals.
- It entertains complaints and appeals pertaining to offices, financial institutions, public sector undertakings, etc., under the Central Government and the Union Territories.

Composition of Central Information Commission (CIC)

• It consists of a **Chief Information Commissioner** and not more than ten Information Commissioners.





- They are appointed by the President on the recommendation of a committee consisting
 of:
 - ✓ The Prime Minister as Chairperson,
 - ✓ The Leader of Opposition in the Lok Sabha and
 - ✓ A Union Cabinet Minister nominated by the Prime Minister
- They should be persons of eminence in public life with wide knowledge and experience in law, science and technology, social service, management, journalism, mass media or administration and governance.
- They should not be a Member of Parliament or Member of the Legislature of any State or Union Territory.
- They should not hold any other office of profit or connected with any political party or carrying on any business or pursuing any profession.

Tenure and Service Conditions of Central Information Commission (CIC)

- The Chief Information Commissioner and an Information Commissioner hold office for a **term of 5 years** or **until they attain the age of 65 years**, whichever is earlier.
- They are **not eligible for reappointment**.
- The President can remove the Chief Information Commissioner or any Information
 Commissioner from the office under the following circumstances:
 - ✓ If he is adjudged an insolvent; or
 - ✓ If he has been convicted of an offence which (in the opinion of the President) involves a moral turpitude; or
 - ✓ If he engages during his term of office in any paid employment outside the duties of his office; or
 - ✓ If he is (in the opinion of the President) unfit to continue in office due to infirmity of mind or body; or
 - ✓ If he has acquired such financial or other interest as is likely to affect prejudicially his official functions.





The **salary**, **allowances** and **other service conditions** of the Chief Information Commissioner are similar to those of the Chief Election Commissioner and that of the Information Commissioner are similar to those of an Election Commissioner.

5.2 ELECTING A SPEAKER AND DEPUTY SPEAKER

Recently, it was noted that the Maharashtra Legislative Assembly has been without a Speaker for most of 2021 and Lok Sabha and several state Assemblies are without a Deputy Speaker.

Election of Speaker

- The Speaker is **elected by the Lok Sabha** from amongst its members.
- The Lok Sabha elects another member to fill the vacancy whenever the office of the Speaker falls vacant.
- The date of election of the Speaker is **fixed by the President**.

Tenure of Speaker

- The Speaker remains in office during the life of the Lok Sabha.
- The Speakers has to **vacate his office earlier** in any of the following three cases:
 - o If he **ceases to be a member** of the Lok Sabha;
 - o If he **resigns by writing** to the Deputy Speaker; and
 - If he is removed by a resolution passed by a majority of all the members of the Lok Sabha
- When a resolution for the removal of the Speaker is under consideration of the House, he cannot preside at the sitting of the House.
- It is noted that whenever the Lok Sabha is dissolved, the Speaker does not vacate his
 office and continues till the newly-elected Lok Sabha meets.





Role of Speaker

- The Speaker is the **head of the Lok Sabha**, and its representative.
- He is the guardian of powers and privileges of the members, the House as a whole and its committees.
- He is the principal spokesman of the House, and his decision in all Parliamentary matters
 is final.
- He derives his powers and duties from three sources i.e. the Constitution of India, the Rules of Procedure and Conduct of Business of Lok Sabha, and Parliamentary Conventions.

Powers and Functions of Speaker

- He maintains order and decorum in the House for conducting its business and regulating its proceedings.
- He **adjourns the House or suspends the meeting** in absence of a quorum.
- He presides over a **joint setting of the two Houses** of Parliament.
- He decides whether a bill is a money bill or not and his decision on this question is final.

Deputy Speaker of Lok Sabha

- The Deputy Speaker is also **elected by the Lok Sabha itself** from amongst its members.
- The Deputy Speaker **performs the duties of the Speaker's office** when it is vacant.
 - He also acts as the Speaker when the latter is absent from the sitting of the House.
- It should be noted here that the Deputy Speaker is not subordinate to the Speaker.
- The Deputy Speaker is entitled to a regular salary and allowance fixed by Parliament, and charged on the Consolidated Fund of India.

5.3 AKALIS TO MOVE ADJOURNMENT MOTION IN LOK SABHA ON FARM LAWS





Recently, the Shiromani Akali Dal general secretary has said that as their party would be moving **adjournment motion in the Lok Sabha** to seek repealing of three farm laws.

Adjournment Motion?

- It is introduced in the Lok Sabha to draw attention of the House to a definite matter of
 urgent public importance.
- It needs the support of 50 members to be admitted in the Parliament.
- It is regarded as an extraordinary device because it interrupts the normal business of the House.
- It involves an element of censure against the government and hence Rajya Sabha is not permitted to make use of this device.
- The right to move a motion for an adjournment of the business of the House is subject to the following restrictions:
 - It should raise a matter which is definite, factual, urgent and of public importance;
 - o It should **not cover more than one matter**;
 - It should be restricted to a specific matter of recent occurrence and should not be framed in general terms;
 - It should not raise a question of privilege;
 - It should **not revive discussion on a matter** that has been discussed in the same session;
 - It should **not deal with any matter** that is under adjudication by court; and
 - o It should **not raise any question** that can be raised on a distinct motion.

What are Motions?

- The House expresses its decisions or opinions on various issues through the **adoption or rejection of motions** moved by either ministers or private members.
- The motions **moved by the members** to raise discussions on various matters fall into three principal categories:





- Substantive Motion: It is a self-contained independent proposal dealing with a very important matter like impeachment of the President or removal of Chief Election Commissioner.
- Substitute Motion: It is a motion that is moved in substitution of an original motion and proposes an alternative to it.
- Subsidiary Motion: It is a motion that, by itself, has no meaning and cannot state
 the decision of the House without reference to the original motion or proceedings of
 the House.

Types of Motions

- **Closure Motion:** It is a motion moved by a member to cut short the debate on a matter before the House.
- **Privilege Motion:** It is concerned with the breach of parliamentary privileges by a minister.
 - It is moved by a member when he feels that a minister has committed a breach of privilege of the House.
- Calling Attention Motion: It is introduced in the Parliament by a member to call the
 attention of a minister to a matter of urgent public importance, and to seek an authoritative
 statement from him on that matter.
- **No-Confidence Motion:** Article 75 of the Constitution says that the council of ministers shall be collectively responsible to the Lok Sabha.
 - The Lok Sabha can remove the ministry from office by passing a no-confidence motion.

5.4 MINISTRY OF COOPERATION IS A POLITICAL GAME CHANGER FOR 2024

Recently, the Centre has now created a separate **Ministry of Cooperation** in the backdrop of ongoing farmer protests against the new farm laws.

Cooperative Movement in India





- The cooperative movement was developed in pre-Independence India in response to agricultural distress and indebtedness.
- According to the Ministry of Statistics and Programme Implementation, the formal launch of the cooperative movement in India occurred with the introduction of the Cooperative Societies Act in 1904.
- In 1912, another Cooperative Societies Act was passed to rectify some of the drawbacks
 of the earlier law.
- The term 'cooperation' was included as a state subject in 1919.

Key Sectors of Cooperatives

- The cooperatives are geared towards benefiting the chunk of Indian people. about
 65 per cent of the country's population.
- According to the Co-operative Societies Act, 1912, at least 10 persons aged above 18
 years with common economic objectives, like farming, weaving, consuming, etc. can form
 a cooperative society.
- The various kinds of cooperatives in India include consumers' cooperative societies, which seek to protect the interest of general consumers by making goods available at reasonable rates.
- The **producers' cooperative societies protect the interest** of small producers by enabling access to raw materials, tools and equipment, machinery, etc.

Constitutional Provisions of Co-operative Societies

- The 97th Constitutional Amendment Act of 2011 gave a constitutional status and protection to co-operative societies.
- It made the following **three changes** in the constitution:
 - It made the right to form co-operative societies a fundamental right (Article 191).





- It included a new Directive Principle of State Policy on promotion of cooperative societies (Article 43-B2).
- It added a new Part IX-B in the Constitution which is entitled "The Cooperative Societies" (Articles 243-ZH to 243-ZT).
- The **Part IX-B of the constitution** contains the following provisions with respect to the co-operative societies:
- **Incorporation of Co-operative Societies:** The state legislature may make provisions for the incorporation, regulation and winding-up of co-operative societies.
- **Number and Term of Members of Board and its Office Bearers:** The board shall consist of such number of directors as may be provided by the state legislature.
- The state legislature shall provide for the reservation of one seat for the Scheduled Castes or
 the Scheduled Tribes and two seats for women on the board of every co-operative society
 having members from such a category of persons.
- The term of office of elected members of the board and its office bearers shall be five years from the date of election.
- Election of Members of Board: The election of a board shall be conducted before the
 expiry of the term of the board so as to ensure that the newly elected members assume office
 immediately.
- **Supersession and Suspension of Board and Interim Management:** No board shall be superseded or kept under suspension for a period exceeding six months.
- Audit of Accounts of Co-operative Societies: The state legislature may make provisions
 for the maintenance of accounts by the co-operative societies and the auditing of such
 accounts at least once in each financial year.
- Offences and Penalties: The state legislature may make provisions for the offences relating to the co-operative societies and penalties for such offences.





- Such a law shall include the **commission or omission** of the following acts as offences:
- A co-operative society willfully makes a false return or furnishes false information
- Any person willfully disobeys any summon, requisition or order issued under the State Act
- Any employer who, without sufficient cause, fails to pay to a co-operative society the amount deducted from its employee within a period of fourteen days
- Any officer who willfully fails to handover custody of books, accounts, documents, records, cash, security and other property belonging to a cooperative society to an authorised person
- Any person who adopts corrupt practices before, during or after the election of members of the board or office bearers

Role of Ministry of Cooperation

- It will help realise the vision of "Sahkar se Samriddhi", which roughly translates as "Prosperity through Cooperation".
- It is mandated to provide a separate administrative, legal and policy framework for strengthening the cooperative movement with a focus to help deepen cooperatives as a true people-based movement.
- It will streamline processes for 'ease of doing business' for cooperatives and enable development of multi-state cooperatives.

5.5 GENDER SAMVAAD

Recently, the **Second Gender Samvaad** was organised by the Ministry of Rural Development. **Gender Samvaad**





- It is a joint initiative of Deendayal Antyodaya Yojana-National Rural Livelihoods
 Mission (DAY-NRLM) and the Initiative for What Works to Advance Women and
 Girls in the Economy (IWWAGE) at LEAD.
- It is an attempt to create a common platform for generating greater awareness on NRLM's interventions, and the impact of its gender operational strategy, across the country.
- It focuses on **highlighting best practices and the lessons learnt** in implementing gender responsive interventions.
- It is a bi-monthly webinar which will provide states with opportunities to exchange
 knowledge on how to improve women's agency, share international experiences of
 successful gender interventions.

Objectives of Gender Samvaad

- It will **provide states** with opportunities to:
 - Understand best practices/initiatives that other states have been undertaking to improve women's agency;
 - Understand gender interventions globally;
 - Engage with experts and other colleagues on suggestions regarding how to handle issues/implementation barriers;
 - Contribute to creation of a 'gender repository' with resource materials on best practices for gender interventions across the country/other countries; and
 - Build advocacy around the need to focus on gender issues across SRLMs and the NRLM.

IWWAGE





- It is an initiative of LEAD, an action-oriented research centre of IFMR Society (a not for profit society registered under the Societies Act).
- It aims to **build on existing research and generate new evidence** to inform and facilitate the agenda of women's economic empowerment.
- It is supported by the **Bill & Melinda Gates Foundation**.
- The **IWWAGE focuses** on three thematic areas:
 - Barriers to Work
 - Quality of Work
 - Women's Agency

5.6 TUSSLE BETWEEN CENTRAL Vs UNION GOVERNMENT

Recently, a controversy erupted over the new DMK government referring to the government of Prime Minister Narendra Modi as the 'union government' instead of 'central government'.

Central v/s Union Government

- Justice (retd) K Chandru had pointed out that more than 70 years after Independence, there is **no authorised Tamil translation** of the Constitution of India.
 - The question in the 'union or centre' debate is about the nature of the Indian state.
- In the Government of India Act, 1935, provinces had more power and the Viceroy had only the minimum but the Indian constitution changed this equation, and the federal government was made more powerful.
- The actual power is **vested with the Union of India** in all respects.





 The Tamil Nadu government stated that the Constitution describes India as a "Union of States" and therefore the ideal reference to the Centre would be the "Union Government".

Constitutional Provisions for Central or Union Government

- Article 1(1) of the Constitution of India says that India, that is Bharat, shall be a Union
 of States.
- The chairman of the drafting committee of the Indian Constitution had used the world
 'Union' because:
 - The Indian federation was not the result of an agreement by the units; and
 - The component units had no freedom to secede from the federation.
- The Indian Constitution constantly uses the word "Union" to describe the entire country as well as the government that administers it.
 - Article 53 reads that the executive power of the Union shall be vested in the President.
- The 'Central government' is a term not used in the original Constitution as passed by the Constituent Assembly.
- The Preamble clearly demonstrates the federal form, spirit and content of the Indian
 Constitution with an open acknowledgement of the centralizing tendencies and the
 quasi-federal characteristics in the actual working of the Constitution.
- The **seventh schedule (Article-246) of the Constitution** contains the Union List with 97 items, State List with 66 items and Concurrent List with 47 items.

Reasons for use of Central or Union Government





- The British Parliament passed the Regulating Act, appointing a governor general to oversee all of British India.
 - The administration that the governor general ran was often described as the "Central Government" in order to differentiate it from the "provincial governments".
- The Government of India Act 1919 introduced a rudimentary form of self-government and federalism in India and the powers were split between "central" and "provincial" subjects.
- The **Government of India Act 1935** proposed a merger between British India and the princely states that the term "Federation of India" was first used.
- The modern term "Union" was first officially used in 1946 by the **Cabinet Mission Plan**.

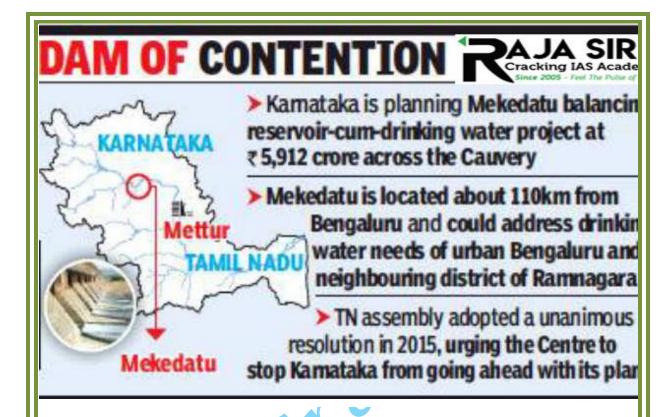
5.7 CONSTRUCTION OF MEKEDATU DAM

Recently, the Feasibility Report (FR) of Mekedatu Dam was submitted to Central Water Commission (CWC) by Government of Karnataka for according "in-principle" clearance for preparation of Detailed Project Report (DPR) of the project.

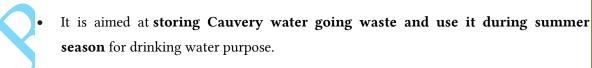
Mekedatu Dam







- It is a Balancing Reservoir cum Drinking Water Project in Karnataka.
- It is proposed to be **built at a deep gorge** situated at the **confluence of the Cauvery**River and its tributary Arkavathi.
- It is a **multipurpose project**, which involves building a balancing reservoir, near **Kanakapura in Ramanagara**.
- It is aimed at **ensuring drinking water to Bengaluru and neighbouring areas** (4.75 TMC) and also can generate 400 MW power.







 A balanced reservoir is planned at the confluence of River Arkavathi and River Cauvery, across the River Cauvery for a comprehensive drinking water scheme to cater to needs of Bengaluru citizens in the future.

Expert views on Mekedatu Dam

- It is a **complex situation from Karnataka's point of view** i.e. it is the last catchment that is unregulated below the KRS (Krishna Raja Sagar) dam and the Kabini Reservoir.
- Tamil Nadu fears that if Karnataka controls the water all the way up to Ontigondlu, the latter might not stick to its obligation mandated by the Supreme Court.
- The **Mekedatu** is one issue in the Cauvery water sharing dispute, which has been a bone of contention between the two since 1892.

Kaveri River

- It is known as 'Ponni' in Tamil.
- It is the **fourth-largest river in south India**.
- It originates in the Western Ghats at Talakaveri in Karnataka's Kodagu district and it passes through Tamil Nadu.
- The river bisects the state into north and south and finally reaches the Bay of Bengal at Poompuhar, also known as Kaveripoompattinam in Tamil Nadu.
- The Cauvery basin is spread over 81,155 sq km in the states of Karnataka (34,273 sq km), Tamil Nadu (43,856 sq km) and Kerala (2,866 sq km) and the Union Territory of Puducherry (160 sq km).
- Its major tributaries, Kabini and Moyar, join it before it reaches the Stanley Reservoir at Mettur in Tamil Nadu's Salem district.





5.8 LANDMARK DECISION TAKEN BY GOVERNMENT OF INDIA IN MEDICAL EDUCATION

27% reservation for OBCs and 10% reservation for Economically Weaker Section (EWS) in All India Quota (AIQ) Scheme for undergraduate and postgraduate medical / dental courses (MBBS / MD / MS / Diploma / BDS / MDS) from current academic year 2021-22 onwards

Under the visionary guidance of the Prime Minister Narendra Modi, Ministry of Health and Family Welfare has taken a historic and a landmark decision for providing 27% reservation for OBCs and 10% reservation for Economically Weaker Section (EWS) in the All India Quota (AIQ) Scheme for undergraduate and postgraduate medical / dental courses (MBBS / MD / MS / Diploma / BDS / MDS) from the current academic year 2021-22 onwards. Prime Minister in a meeting held on 26th July (Monday), 2021 had directed the concerned Union Ministries to facilitate an effective solution to this long pending issue.

This decision would benefit every year nearly 1500 OBC students in MBBS and 2500 OBC students in post graduation and also around 550 EWS students in MBBS and around 1000 EWS students in post graduation. The All India Quota (AIQ) Scheme was introduced in 1986 under the directions of the Honble Supreme Court to provide for domicile-free merit based opportunities to students from any State to aspire to study in a good medical college located in another State. All India Quota consists of 15% of total available UG seats and 50% of total available PG seats in government medical colleges.

Initially, there was no reservation in AIQ Scheme up to 2007. In 2007, the Hon'ble Supreme Court introduced reservation of 15% for SCs and 7.5% for STs in the AIQ Scheme. When the Central Educational Institutions (Reservation in Admission) Act became effective in 2007 providing for uniform 27% reservation to OBCs, the same was implemented in all the Central Educational Institutions viz. Safdarjung Hospital, Lady Harding Medical College, Aligarh Muslim University and Banaras Hindu University etc. However, this was not extended to the AIQ seats of State medical and dental colleges.





The present Government is committed to **providing due reservation both to the backward category as well as the EWS category**. The Union Government has now taken a historic decision to provide **for 27% reservation for OBCs** and **10% reservation for EWS** in the AIQ Scheme. The OBC students from across the country shall now be able to take benefit of this reservation in AIQ Scheme to compete for seats in any State. Being a Central Scheme, the Central List of OBCs shall be used for this reservation. Around 1500 OBC students in MBBS and 2500 in post graduation will be benefitted through this reservation.

In order to provide benefit to students belonging to EWS category in admission to higher educational Institutions, a Constitutional amendment was made in 2019 which enabled the **provision of 10% reservation for EWS category**. Accordingly, seats in medical / dental colleges were increased over two years in 2019-20 and 2020-21 to accommodate this additional 10% EWS reservation so that the **total number of seats available for unreserved category do not reduce**. In the AIQ seats, however, this benefit had not been extended so far.

Therefore, along with the 27% reservation for OBCs, 10% reservation for EWS is also being extended in AIQ seats for all the undergraduate / postgraduate medical/dental courses from the current academic year 2021-22. This will benefit every year around more than **550 EWS students for MBBS** and around 1000 EWS students for PG medical courses.

The above decision is the reflection of the Government's commitment to provide due reservation for backward and EWS category students. This decision is also in sync with the significant reforms carried out in the field of medical education since 2014. During the last six years, MBBS Seats in the country have increased by 56% from 54,348 seats in 2014 to 84,649 seats in 2020 and the number of PG seats have increased by 80% from 30,191seats in 2014 to 54,275 seats in 2020. During the same period, 179 new medical colleges have been established and now the country has 558 (Govt: 289, Pvt: 269) medical colleges.

5.9 WHAT IS TELANGANA'S DALIT BANDHU SCHEME, AND WHY HAS IT DRAWN CRITICISM?





Recently, the **Telangana Chief Minister** K Chandrasekhar Rao (KCR) said that his government is ready to **spend Rs 80,000 crore to Rs 1 lakh crore for Dalit Bandhu**.

Telangana Dalit Bandhu Scheme

- It is the latest flagship programme of the Telangana government.
- It is envisioned as a **welfare scheme for empowering Dalit families** and enable entrepreneurship among them through a direct benefit transfer of Rs 10 lakh per family.
- The officials were asked to visit Dalit colonies and interact with Dalit families to find out their views and opinions before preparing guidelines for the scheme.
- The beneficiaries will then be selected from 20,929 eligible Dalit families of the
 constituency after scrutiny based on these guidelines.

Implementation of Telangana Dalit Bandhu Scheme

- It will be implemented on a **pilot basis in the Huzurabad Assembly constituency.**
- It will be rolled out across the state in a phased manner based on the experiences of implementation in Huzurabad.

Significance of Telangana Dalit Bandhu Scheme

- It is touted as the **country's biggest direct benefit transfer scheme**, to empower Dalits across the state.
- It will focus on **monitoring the implementation of the scheme**, evaluating the results, and also creating a safety fund for the beneficiaries with the government's participation.





6.1 ZIKA VIRUS INFECTION CONFIRMED IN KERALA

Recently, Kerala is on alert after detecting its **first ever positive case** of the **Zika virus**.

Zika Virus

- ❖ It is a viral infection which is spread by mosquitoes.
- ❖ It is a mosquito-borne Flavivirus.
- The vector of Zika virus is the Aedes aegypti mosquito, which also spreads dengue and chikungunya.
- ❖ It was first identified in Uganda in 1947 in monkeys and it was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.
- ❖ In 2015, a major outbreak in Brazil led to the revelation that **Zika can be associated with** microcephaly, a condition in which babies are born with small and underdeveloped brains.
- ❖ The infected people can **transmit Zika sexually**.
- ❖ The virus can be **passed from a pregnant woman to her fetus** and can cause infants to be born with microcephaly and other congenital malformations.

Implication of Zika Virus

- ❖ The fears around **Zika primarily involve microcephaly**, especially when pregnant women are infected.
- The countries that have had a Zika outbreak, including Brazil, have reported a steep increase in Guillain-Barré syndrome.





- ✓ It is a **neurological disorder** that could lead to paralysis and death.
- ❖ In 2017, following a study on Brazil's confirmed cases, the US National Institutes of Health study estimated the **fatality rate at 8.3 per cent.**

Symptoms of Zika Virus

- ❖ The symptoms are **similar to those of flu**, including fever bodyache, headache etc.
- ❖ The additional symptoms can include the **occasional rash like in dengue**, while some patients also have conjunctivitis.
- ❖ The **incubation period** (the time from exposure to symptoms) of Zika virus disease is estimated to be **3-14 days**.

Treatment and Prevention of Zika Virus

- **!** It has **no treatment or vaccine**.
- The symptoms of Zika virus are mild and usually require rest, consumption of plenty of fluids, and common pain and fever medicines.
- The governments take mosquito control measures such as spraying of pesticides, use of repellents etc. when Zika cases are reported.
- There is focus on contraceptives because of the possibility of congenital abnormalities and sexual transmission.
- ❖ The WHO requires countries to **counsel sexually active men and women** on the matter to minimise chances of conception at the time of an outbreak.

Background of Zika Virus in India

- ❖ In India, Zika virus was **first recorded in 1952-53.**
- ❖ The latest **major outbreak was in 2018**, when 80 cases were reported in Rajasthan.

6.2 METHANE-PRODUCING PROCESSES ON ENCELADUS





Recently, NASA's Cassini spacecraft has detected an unusually high concentration of methane, along with carbon dioxide and dihydrogen, in the moons of Saturn by flying through their plumes.

Highlights

- The **giant water plumes erupting from Enceladus** have inspired research and speculation about the vast ocean that is believed to be sandwiched between the moon's rocky core and its icy shell.
- The Cassini spacecraft has found that **Titan has methane in its** atmosphere and **Enceladus has a liquid ocean** with erupting plumes of gas and water.
- An international research team has used new statistical methods to understand
 if methanogenesis or methane production by microbes could explain the molecular
 hydrogen and methane.

Methane-producing organisms on Earth

- Microorganisms called methanogens are capable of generating methane as a metabolic byproduct.
- Methanogens **do not require oxygen** to live and are widely distributed in nature.
- They are found in **swamps**, **dead organic matter**, and even in the human gut.
- They are known to **survive in high temperatures** and simulation studies have shown that they can **live in Martian conditions**.
- On Earth, hydrothermal activity occurs when cold seawater seeps into the ocean floor, circulates through the underlying rock and passes close by a heat source.

Methanogenesis on Enceladus

 The team using the newly developed model gave a set of conditions, including dihydrogen concentration and different temperatures to understand if microbes would grow.





- The team writes that methane could be formed by the chemical breakdown of organic matter present in Enceladus' core.
 - Hydrothermal processes could help the formation of carbon dioxide and methane.
- The results suggest that **methane production from hydrothermal vents is not sufficient** to explain the high methane concentration detected by Cassini in the plumes.

Cassini Mission

- It was launched on October 15, 1997 on a seven-year journey to investigate Saturn, its rings, and its moons.
- The spacecraft consists of an orbiter and the European Space Agency's Huygens Titan probe.
- Cassini arrived at the planet in 2004 and continues to study the Saturn system with 12
 different instruments.
- The Huygens probe was **deployed from the Cassini spacecraft** and landed on the moon Titan in January of 2005.
- The probe **entered the clouds of Titan and gathered atmospheric data** and images as it parachuted to the surface.
- Cassini-Huygens was a mission of firsts because it was first to orbit Saturn, first landing
 in the outer solar system and first to sample an extraterrestrial ocean.
- It revealed Titan to be one of the most Earth-like worlds we have encountered and shed light on the history of our home planet.

Naming of the Spacecraft

- Christiaan Huygens (1629-1695) was a Dutch scientist who discovered Saturn's rings and, in 1655, its largest moon, Titan.
- Italian Jean-Dominique Cassini (1625-1712) discovered the Saturnian satellites Iapetus, Rhea, Tethys and Dione.





 In 1675 he discovered what is known today as the 'Cassini Division', the narrow gap separating Saturn's rings.

6.3 'NOTHING TO WORRY ABOUT': TWO CASES OF KAPPA COVID-19 VARIANT FOUND IN UTTAR PRADESH

Recently, two cases of **Kappa variant of Covid-19** have been recorded in Uttar Pradesh.

Kappa variant of Covid-19

- According to World Health Organisation (WHO), Kappa is one of the two Covid-19
 variants (the other being Delta) first identified in India.
- The **Delta** and **Kappa** variants are **siblings**i.e. the **direct descendants of a variant** that earlier used to be referred to as the double mutant, or **B.1.617**.
- The WHO had named this **variant 'Kappa' and B.1.617.2 'Delta'** just as it named various variants of the coronavirus using Greek alphabets.
- According to the WHO, this variant was first identified in India in October 2020.

Degree of severity of Kappa variant of Covid-19

- Kappa variant is still listed among 'variants of interest' and not 'variants of concern' by the WHO.
- The variants of interests are "a SARS-CoV-2 variant with genetic changes that are predicted or known to affect virus characteristics such as transmissibility, disease severity, immune escape, diagnostic or therapeutic escape.

6.4 MAHARASHTRA TAKES LEAD IN FIGHT AGAINST LYMPHATIC FILARIASIS

Recently, Maharashtra is leading the way in the fight to reach the last mile when it comes to elimination of Lymphatic Filariasis (Filaria).

Lymphatic Filariasis

• It is a **parasitic disease** caused by microscopic, thread-like **worms**.





- There are **3 types** of these thread-like filarial worms:
 - ✓ **Wuchereriabancrofti**, which is responsible for 90% of the cases
 - ✓ **Brugiamalayi**, which causes most of the remainder of the cases
 - ✓ **Brugiatimori**, which also causes the disease
- The **adult worms only live in the human lymph system** and the lymph system maintains the body's fluid balance and fights infections.
- It is caused by infection with parasites classified as nematodes (roundworms) of the family
 Filariodidea.
- It is spread from person to person by mosquitoes.

Impact of Lymphatic Filariasis

- It is usually acquired in childhood and the infection damages the lymphatic system.
- It causes **enlargement of body parts** such as **hydrocele** (abnormal swelling of the scrotum) and **lymphedema** (swelling in the limbs).
- It is the second most disabling disease after mental health according to World Health Organization (WHO).
- It is considered globally as a **neglected tropical disease (NTD).**
- In 2019, 859 million people in 50 countries were living in areas that require preventive chemotherapy to stop the spread of infection.

Treatment of Lymphatic Filariasis

- It is preventable with the administration of anti-filarial drugs during annual Mass Drug Administration rounds.
- **IDA**, a new drug combination approved by the WHO, has been proven to be **more efficacious for LF elimination** and can help reduce the number of MDA rounds needed to eliminate LF.

6.5 FINAL LAUNCH OF SUBORBITAL FLIGHT UNITY 22





Recently, the Virgin Group founder Richard Branson and five others undertook a brief trip to the "edge of space" which is known as **Suborbital Flight**.

Suborbital Flight

- When an object travels at a horizontal speed of about 28,000 km/hr or more, it goes into
 orbit once it is above the atmosphere.
 - The satellites need to reach that threshold speed in order to do orbit Earth and such a satellite would be accelerating towards the Earth due to gravity.
- Any object travelling slower than 28,000 km/hr must eventually return to Earth.
- It allows space travellers to experience a few minutes of "weightlessness".
- It implies that while the **suborbital vehicles will cross the ill-defined boundary of space**, they will not be going fast enough to stay in space once they get there.

Orbital Vs Suborbital Flights

- The main difference between orbital and suborbital flight is the speed at which a vehicle
 is traveling.
- An orbital spacecraft must achieve what is known as orbital velocity, whereas a suborbital rocket flies at a speed below that.
 - The orbital velocity is the speed that an object must maintain to remain in orbit around a planet.
- A suborbital rocket **does not have the power to achieve orbit** and it will fly up to a certain height that depends on its speed, and then come back down once its engines are shut off.

Opportunities offered by Suborbital Flights

- It would provide increased flight access for design innovation and experimental manipulation due to high projected flight rates.
- It would also allow for **human-tended experiments**, much like the traditional zero-g aircraft, with rapid access to these payloads before, during, and after launch.





- It would be the **potential for less bureaucracy** than is typically experienced with government space access.
- The access to commercial suborbital spaceflight has the potential to open up a new realm in research and development.

6.6 DEPARTMENT OF SCIENCE & TECHNOLOGY (DST) TO SET UP A WORLD CLASS INDIA'S FIRST NATIONAL S&T RESEARCH UNIVERSITY

Recently, Union Minister of State (Independent Charge) Science & Technology said that the Department of Science & Technology (DST) should make efforts to set up **India's first National S&T Research University.**

Need for National S&T Research University

- India today has **attained top 3rd global ranking** in terms of research publications and **global number 9** in the quality of research publications.
 - India's global ranking in the quality of research papers has improved from number
 14 to number 9.
- There is need for focusing on increasing numbers of beneficiaries in human resource related schemes like MANAK, INSPIRE, Doctoral and post-doctoral Fellowships, and other schemes.
- In 2022, DST will target for the launch of 7,500 STI based Start-Ups, 750,000 students of
 6-10 classes participating in the MANAK Award programmes.
 - Under the Vigyan Jyoti Programme, the DST will target 75,000 girl students getting benefit of the scheme by 2022.
- There has been an increase in the number of resident patents filed, number of Full

 Time Equivalent (FTE) researchers and number of women scientists.

Importance of National S&T Research University





- It is aimed at leveraging the **research strength of DST's different Autonomous**Research & Development Institutions working in the field of science and technology.
- **S&T Strategic Planning:** It encompasses medium- and long-term science and technology development, including medium-and long-term planning and five-year planning on S&T.
- **S&T Programs:** It consists of major S&T 3 projects, key technology support programs, high-tech R&D projects, basic research projects, basic conditions for S&T projects, and international technology cooperation projects.
- **S&T Projects:** The experts are considered to have more of a right to speak, because they better understand basic research and research in cutting-edge technologies.
- **S&T Policy:** The policies that are closely related to the concerns of research institutes and universities, such as the "four skills" policy and university science park policy, are likely to benefit from experts' opinions.

6.7 THE GENOME OF A SALT-SECRETING MANGROVE SPECIES DECODED BY DBT-ILS

Recently, the scientists at the DBT-Institute of Life Sciences and SRM-DBT Partnership Platform for Advanced Life Sciences Technologies have decoded the genome of a Salt-secreting Mangrove Species 'Avicennia marina'.

Avicennia Marina

- It is one of the most prominent mangroves species found in all mangrove formations in India.
- It is a **salt-secreting and extraordinarily salt-tolerant mangrove species** that grows optimally in 75% seawater and tolerates >250% seawater.
- It is among the rare plant species, which can excrete 40% of the salt through the salt glands in the leaves.
- It extraordinary feature is its capacity to **exclude salt entry to the roots.**

Highlights of Genome Decoding





- It reports the **assemblage of a 456.6 Mb of the estimated 462.7 Mb A**. marina genome (98.7% genome coverage) in 31 chromosomes derived from 88 scaffolds and 252 contigs.
- The percentage of genomes in gaps was 0.26%, thereby proving it to be a high-level assembly.
- The A. marina genome assembled can be considered as a **reference-grade genome** reported so far for any mangrove species globally and the first report from India.
- It identified 31,477 protein-coding genes and a "salinome" consisting of 3246 salinityresponsive genes and homologs of 614 experimentally validated salinity tolerance genes.
- The study reported **identification of 614 genes**, **including 159 transcription factors**, which are homologous to the genes that were functionally validated for salinity tolerance in transgenic systems.

Mangroves

- They are a **unique group of species found in marshy intertidal estuarine regions** and survive a high degree of salinity through several adaptive mechanisms.
- They only grow at tropical and subtropical latitudes near the equator because they
 cannot withstand freezing temperatures.
- They are the only trees in the world that can tolerate saltwater, excreting the excess salt through their leaves.

Significance of Mangroves

- They are important resources for the coastal region and are of great ecological and economic value.
- They form a link between marine and terrestrial ecosystems, protect shorelines, provide habitat for a diverse array of terrestrial organisms.
- They stabilize the coastline, reducing erosion from storm surges, currents, waves, and tides.
- They are hotbeds for animal life, both below water and above ground and this biodiversity makes ecosystems more resilient to disease and death.





 They are prolific sequesters of carbon dioxide and are therefore integral for combatting climate change.

Causes of Mangroves destruction

- **Shrimp Farming:** It is fuelling the clearing of mangrove forests.
 - The shrimps are raised in large deposits of waste, bits of feed, pesticides, antibiotics, and chemicals which are often siphoned off or washed out into the ocean, harming neighboring ecosystems.
- **Sea Level Rise:** The rising sea levels, caused by the climate crisis, also pose a significant threat to mangrove forests.
 - The rising sea levels wash away mud, depriving mangroves of the soil they thrive in and eventually leading to the mangroves dying from oxygen deprivation.
- **Invasive Species:** They are threatening mangroves and are looking to undermine their ability to regenerate themselves and impact their unique wildlife varieties.

6.8 IMPACT OF LIGHTNING IS IN THE NEWS?

Recently, at least **30 people were killed in separate incidents of lightning** in various parts of the country in the past 24 hours.

What is lightning?

- Lightning is an electrical discharge caused by imbalances between storm clouds and the ground, or within the clouds themselves.
- Lightning is **extremely hot** i.e. a flash can heat the air around it to temperatures five times hotter than the sun's surface.
- The heat causes **surrounding air to rapidly expand and vibrate**, which creates the pealing thunder we hear a short time after seeing a lightning flash.
- The cloud-to-ground lightning bolts are a common phenomenon i.e. about 100 strike Earth's surface every single second.





 A typical cloud-to-ground lightning bolt begins when a step-like series of negative charges, called a stepped leader, races downward from the bottom of a storm cloud toward the Earth along a channel at about 200,000 mph.

Impact of Lightning Strike

- About 2,000 people are killed worldwide by lightning each year and hundreds more survive strikes but suffer from a variety of lasting symptoms.
- Its extreme heat will vaporize the water inside a tree, creating steam that may blow the tree apart.
- Lightning is **not confined to thunderstorms** because it is been seen in volcanic eruptions, extremely intense forest fires, surface nuclear detonations, heavy snowstorms, and in large hurricanes.
- The intense heat, light and electricity can **damage the victim's eyes.**
- The lightning strikes can increase the chances of impotence in men and overall decreased libido.

Precautions against Lightning

- People should stay away from windows and doors and avoid contact with anything that conducts electricity, including landline telephones.
- It is **unsafe to take shelter under an isolated tall tree**, as it could attract lightning and pass it on to us.
- Lightning travels along vertical surfaces to seek the ground, hence standing just below
 the overhanging edge of a cliff is also considered dangerous.
- It is dangerous to lie down on the ground in an **attempt to escape from lightning**, as the electric charge from a nearby strike will spread horizontally along the ground.

6.9 GUILLAIN-BARRÉ SYNDROME IS IN THE NEWS?

Recently, the federal officials have said that **Johnson & Johnson's beleaguered COVID-19** vaccine may be associated with a small increased risk of **Guillain-Barré syndrome**.

What is Guillain-Barré Syndrome?

- It is a rare condition in which the body's immune system attacks nerve cells.
- It can cause muscle weakness and paralysis.
- It is most **common in adults** over 50.





- The exact cause of Guillain-Barre syndrome is unknown but two-thirds of patients report symptoms of an infection in the six weeks preceding which include respiratory or a gastrointestinal infection or Zika virus.
- There's no known cure for Guillain-Barre syndrome, but several treatments can ease symptoms and reduce the duration of the illness.

Connection between COVID-19 Vaccines and Guillain-Barré Syndrome

- One hundred reports of the syndrome after vaccination with the Johnson & Johnson shot have been submitted to the federal Vaccine Adverse Event Reporting System (VAERS).
- The syndrome was generally **reported about two weeks after vaccination**, primarily in men, many of whom were 50 or older.
- There is not yet any data to suggest a link between the condition and COVID vaccines made by Pfizer-BioNTech or by Moderna.

Types of Guillain-Barré Syndrome

- Acute inflammatory demyelinating polyradiculoneuropathy (AIDP): It is the most common form in North America and Europe.
- The most common sign of AIDP is muscle weakness that starts in the lower part of your body and spreads upward.
- **Miller Fisher syndrome (MFS):** It is a type in which paralysis starts in the eyes.
- MFS is also associated with unsteady gait and is less common in the U.S. but more common in Asia.
- Acute motor axonal neuropathy (AMAN) and acute motor-sensory axonal neuropathy (AMSAN): They are less common in the U.S. but they are more frequent in China, Japan and Mexico.

6.10 NTPC GETS GOVT NOD TO SET UP COUNTRY'S SINGLE LARGEST SOLAR PARK IN GUJARAT

Recently, the **NTPC Renewable Energy Ltd** has received the go-ahead from Ministry of New and Renewable Energy (MNRE) to set up **India's largest solar park**.





Highlights

- ❖ The current total installed **generation capacity** of NTPC stands at **66 GW**.
 - NTPC, India's largest energy integrated company, aims to build 60 GW Renewable Energy Capacity by 2032.
- There are five operational solar power parks in India, of which Bhadla in Rajasthan (2.2 GW) and Pavgada in Karnataka (2.05 GW) are among the world's largest single location solar plants.
 - ➤ India's first solar power park of 0.75 GW was fully commissioned in 2019 in Rewa district of Madhya Pradesh.
- ❖ The ministry announced a solar power park scheme in 2014-15 when it targeted 20 GW of capacity under solar parks/ultra-mega solar power projects by 2020.

India's Single Largest Solar Park

- ❖ It is a **4750 MW** (4.75 GW) **renewable energy park** located at Rann of Kutch in Khavada, **Gujarat**.
- ❖ It will be **India's largest solar park** to be built by the **largest power producer** of the country.
- ❖ It has been approved under Mode 8 (Ultra Mega Renewable Energy Power Park) of Solar Park Scheme.
- ❖ It will be almost **twice the capacity of the Bhadla solar park in Rajasthan**, currently the largest single-location solar power project in the country.

Solar Park Scheme

- The scheme for "Development of Solar Parks and Ultra-Mega Solar Power Projects" was rolled out in December, 2014.
- Under the scheme, the Ministry of New and Renewable Energy provides Central Financial
 Assistance to private project developers.





- It offers suitable developed land with all clearances, transmission system, water access, road connectivity, communication network, etc.
- ❖ It facilitates and speeds up installation of grid connected solar power projects for electricity generation on a large scale.
- **All the States and Union Territories** are eligible for getting benefit under the scheme.
- The Solar Energy Corporation of India Limited (SECI) is the designated authority for solar power park development.

Solar Energy Corporation of India Limited (SECI)

- It is a CPSU under the administrative control of the **Ministry of New and Renewable Energy (MNRE).**
- It is the **only CPSU dedicated** to the solar energy sector.
- It was **originally incorporated as a section-25** (not for profit) company under the Companies Act, 1956.
- It aims to carry on business of generation, forecasting, purchasing, producing, manufacturing, importing, exporting, exchanging, selling and trading in power products and services in India and abroad.

6.11 DID RICHARD BRANSON REALLY REACH 'SPACE'?

Recently, the British businessman Richard Branson beat rival Jeff Bezos to **reach the edge of space**, **giving space tourism** an official kick start.

Karman Line?

- ❖ The experts have suggested the actual boundary between Earth and space lies anywhere from a mere 18.5 miles (30km) above the surface to more than a million miles (1.6 million km) away.
- The Kármán line gets its name from Hungarian-born aerospace pioneer Theodore von Kármán.





- ❖ The Kármán line is **based on physical reality** in the sense that it roughly marks the altitude where traditional aircraft can no longer effectively fly.
 - Anything traveling above the Kármán line needs a propulsion system that doesn't rely on lift generated by Earth's atmosphere.
- The Kármán line is also where the human laws governing aircraft and spacecraft diverge.
- It has been compared to international waters, as there are no national boundaries and human laws in force beyond the line.
- The world governing body for aeronautic and astronautic records, the Federation Aéronautique Internationale (FAI), and many other organizations use the Karman Line as a way of determining when space flight has been achieved.

Need for Karman Line

- The 1967 Outer Space Treaty says that space should be accessible to all countries and can
 be freely and scientifically investigated.
- The defining of a legal boundary of what and where space is can help avoid disputes and keep track of space activities and human space travel.
- The lack of a **definition or delimitation of outer space** has not impeded the development of activities in either sphere.

Layers of Atmosphere

- The Earth's atmosphere has been divided into various layers, with the troposphere starting at the Earth's surface and extending about 14.5 km high, stratosphere extending to 50 km, mesosphere to 85 km, thermosphere to 600 kilometers and exosphere to 10,000 km.
- Dr McDowell noted that the chemical composition of the atmosphere was largely
 constant up to the mesopause, or the boundary between the mesosphere and the
 thermosphere.





6.12 THE 'RE-WILDING' OF WILD ANIMALS, AND THE CHALLENGES IT INVOLVES

Recently, the attempt of **Periyar Tiger Reserve (PTR)** to reintroduce into the wild an abandoned nine-month-old cub named Mangala after rearing it in 'captivity' for two years has brought the **controversial concept of 're-wilding'** of abandoned or injured animals under the lens.

'Re-wilding' of Wild Animals?

- ❖ The Standard Operating Procedures/Guidelines laid down by the National Tiger Conservation Authority (NTCA) under Section 38(O) of The Wildlife Protection Act, 1972 provide three ways to deal with orphaned or abandoned tiger cubs:
 - > The first is to make an effort to **reunite the abandoned cubs** with their mother.
 - Second, if a reunion of the cub with its mother is not possible, and then shift the cub to a suitable zoo.
 - > Third, reintroduction of the cub into the wild after a certain time when it appears that the cub is **capable of surviving in the wild independently** and this is what is known as 'Re-wilding'.
- The NTCA stresses that the tiger cub should be reared in an in situ enclosure for a minimum of two years, and during this time, each cub should have a successful record of at least 50 'kills'.
- The persons responsible for handling cubs must approach them by putting a tiger mask along with work day clothes of a tiger stripe pattern smeared with tiger urine and faeces.
- ❖ The Re-wilding is **systematic**, **scientifically planned re-establishment** of viable populations of tigers in this historical range over the longer term.

Challenges in 'Re-wilding' of Wild Animals

 The tiger conservationist Billy Arjan Singh was credited with the re-introduction of three leopards and a Siberian tigress cub named Tara in Dudhwa forest area in the 1970s.





- The **re-wilding attempt ran into controversy** after several incidents of killing of humans were reported in Dudhwa.
- The process of re-wilding of a wild animal after rearing it in captivity is very complicated,
 and fraught with risks.
- Huge funds are needed for constructing large, well-fenced enclosures, for the equipment required for technical surveillance of the animal.
- The authorities have to keep tabs on the overall movement of a released animal till the end, which needs a **lot of resources and manpower**.

Views on re-wilding?

- There are 50-50 chances of success and failure of re-wilding of hand reared carnivores in the wild.
- Some conservation scientists and tiger experts have said that translocating hand-reared or even wild tigers is not necessary in India
- The chance of success is less than 1 per cent if we look at all the failures of reintroductions and failures have led to deaths of many tigers as well as serious livestock depredations, and even man-eating problems.
- The real need is to **protect more habitats strictly**, so that the prey densities rise and more tigers can thrive.

6.13 WHAT IS UV-C TECHNOLOGY, AND HOW DOES IT WORK ON CORONAVIRUS?

Recently, the Union Minister of State for Science and Technology has said that **Ultraviolet-C or UV-C Disinfection Technology** will soon be installed in Parliament for the mitigation of airborne transmission of SARS-COV-2.

UV-C Disinfection System?

 The UV-C air duct disinfection system is developed by CSIR-CSIO (Central Scientific Instruments Organisation).





- The system is designed to **fit into any existing air-ducts** and the **virucidal dosages using UV-C intensity** and residence time can be optimised according to the existing space.
- The virus is deactivated in any aerosol particles by the calibrated levels of UV-C light.

UV?

- Ultraviolet (UV) is a **type of light or radiation** naturally emitted by the Sun.
- It covers a wavelength range of 100-400 nm.
 - o The **human visible light ranges** from 380-700 nm.
- The UV is divided into three bands: UV-C (100-280 nm), UV-B (280-315 nm) and UV-A (315-400 nm).
- The UV-A and UV-B rays from the Sun are transmitted through our atmosphere and all UV-C is filtered by the ozone layer.
 - UV-B rays can only reach the outer layer of our skin or epidermis and can cause sunburns and are also associated with skin cancer.
 - UV-A rays can penetrate the middle layer of the skin or the dermis and can cause aging of skin cells and indirect damage to cells' DNA.
 - UV-C radiation from man-made sources has been known to cause skin burns and eye injuries.

UV-C in killing Coronavirus

- UV-C radiation (wavelength around 254 nm) has been used for decades to disinfect the air in hospitals, laboratories, and also in water treatment.
- In 2020, a report mentioned that the UV-C radiation can destroy the outer protein coating of the SARS-Coronavirus.
 - It showed that 222-nm, known as 'far-UVC light', efficiently kills airborne human coronaviruses i.e. alpha HCoV-229E and beta HCoV-OC43.
- An in-vitro experiment conducted by Hiroshima University researchers showed that 99.7% of SARS-CoV-2 viral culture was killed when exposed to 222 nm UV-C irradiation at 0.1 mW/cm2 for 30-seconds.





 In 2021, a study reported that the UV-C irradiation was highly effective in inactivating SARS-CoV-2 replication.

Safety concerns for using UV-C Disinfection System

- The researchers from the IIT-Kanpur, who developed a portable disinfectant device that used UV-C radiation (222-254 nm), have noted that the device was specifically developed to disinfect non-living things.
- The release from the Ministry of Science and Technology does not state the wavelength
 or duration used, but mentioned that the product was tested for more than 99% disinfection.
- There are few studies which have shown that far-UVC light (207–222 nm) does not harm mammalian skin.
- The Far-UVC light has a **very limited range and cannot penetrate through the outer dead-cell layer** of human skin or the tear layer in the eye.

6.14 SHRI ARJUN MUNDA VIRTUALLY LAUNCHES THE NATIONWIDE CAMPAIGN 'COVID TEEKA SANG SURAKSHIT VAN, DHAN AUR UDDYAM'

Recently, the Union Minister of Tribal Affairs has launched a campaign called 'COVID Teeka Sang' Surakshit Van, Dhan aur Uddyam'.

COVID Teeka Sang Surakshit Van, Dhan aur Uddyam

- It is a nationwide campaign to accelerate the pace of COVID vaccination among tribals in India.
- It has been launched by TRIFED under the Ministry of Tribals for 10.5 crore tribal community people across the country.
 - o It is being launched in partnership with **UNICEF and WHO**.
- It hopes to make the Van Dhan Vikas Kendras and villages to be the **first in respective** states to be declared COVID free and free of all restrictions.





- It will be implemented with the **help of traditional village headsmen**, **SHGs**, **and ground level workers** in villages and the Van Dhan Kendras will become the focal points.
- Its objective is that the **tribal communities should not only remain safe and healthy** during the pandemic but should also be able to continue their livelihood activities.
- It focusses on reassurance, pride and self-efficacy.
- It promotes 'Livelihoods with Health' in tribal areas, fast tracks the activities of VDVK, and accelerates the pace of COVID vaccination among tribals.
- It is aligned with UNICEF's equity approach to survival, growth and development of children.
- The campaign will highlight the three key J's:
 - Jeevan (Life): Every life and livelihood is precious, so vaccination is key to life and is free.
 - Jeevika (Livelihood): The tribal population can continue Van Dhan Vikas Kendra and livelihood activities without any fear of getting the disease if you are vaccinated.
- It also saves you from hospitalization and other opportunity costs.
 - Jaagrookta (Awareness): Simplification of the process of registration for vaccination, place, accessibility to different audiences and age groups, especially women and elderly population.
- Van Dhan Vikas Kendras collaborate and work with other stakeholders with service as a motto and with dedication and commitment that they have a key role to make Panchayats and villages coronavirus free.

Significance of COVID Teeka Sang Surakshit Van, Dhan aur Uddyam

- It will leverage the 45,000 Van Dhan Vikas Kendras (VDVK) of the Tribal Co-operative Marketing Development Federation of India (TRIFED).
- It will help to beat the infodemic against the coronavirus vaccine, and myths,
 rumours, misinformation and disinformation are adding to the infodemic.
- It will leverage the strength and network of Self Help Groups and other common touch
 points to promote vaccine uptake and COVID Appropriate Behaviour.





- It aims to clear all the misconceptions related to vaccination among the tribal
 people and to motivate them to get themselves vaccinated so that they do not suffer in the
 future.
- Its goal is to connect over **50 lakh tribals emphasizing COVID-19 vaccination is free** and available in the nearby centres

6.15 IIT-HYDERABAD DEVELOPS CHEAPER COVID-19 TESTING KIT 'COVIHOME

Recently, a team led by Prof Shiv Govind Singh of the Department of Electrical Engineering at IIT Hyderabad has developed 'COVIHOME'.

COVIHOME

- It is deemed India's first Rapid Electronic Covid-19 RNA test kit.
- It is an artificial intelligence (AI)-powered Covid-19 testing kit that can produce results in 30 minutes for both symptomatic and asymptomatic patients.
- It is developed by the **Indian Institute of Technology (IIT)-Hyderabad**.
- It is validated by the Centre for Cellular & Molecular Biology (ICMR-CCMB) Hyderabad.
- It **does not require** RT-PCR (Reverse Transcription Polymerase Chain Reaction), an expert human resource, and a BSL-2 lab facility for the extraction of RNA.
- The **validation report confirmed** the kit's efficiency at 94.2 percent, Sensitivity 91.3 percent and Specificity 98.2 percent.

6.16 HOW THE MOON 'WOBBLE' AFFECTS RISING TIDES

Recently, a study has published that the **Wobble effect of Moon** is expected to lead to more flooding here on Earth in the middle of the next decade.

Moon Wobble?

• It is a **regular oscillation** that humans have known about for centuries.





- It is one of many factors that can either **exacerbate rising sea levels or counteract them**, alongside other variables like weather and geography.
- It was first documented way back in 1728.
- The wobble takes over an **18.6-year period to complete**, and continues in a cyclic fashion.

Highlights

- The study aimed to untangle all of those variables in an effort to improve predictions about the future of floods.
- The results underscored a basic fact separate from the movement of the moon that our oceans are raising because of climate change.
- The rising temperatures caused by greenhouse gas emissions are not the only cause of higher flood risks and the report explored the interplay of many variables that push and pull at ocean levels.
- The study warned that we should expect this wobble to heighten high tides in the middle of the 2030s.

Development of Wobble Effect

- The high tides on this planet are caused mostly by the pull of the moon's gravity on a spinning Earth and on most beaches, we would see two high tides every 24 hours.
- The moon also revolves around the Earth about once a month, and that orbit is a little
 bit tilted.
- The path of the moon's orbit seems to fluctuate over time and completing a full cycle (referred to as a nodal cycle) every 18.6 years.
- At certain points along the cycle, the **moon's gravitational pull comes from such an angle that it yanks one of the day's two high tides** a little bit higher, at the expense of the other.
 - It does not mean that the moon itself is wobbling, nor that its gravity is necessarily pulling at our oceans any more or less than usual.





 The high-tide flooding related to climate change is expected to break records with increasing frequency over the next decade.

Effect of wobble?

- The effect of the wobble could cause high tide levels at a beach to oscillate by 1 or 2 inches over the course of its long cycle.
- In half of this lunar cycle, **Earth's regular daily tides are diminished**, with high tides lower than usual and low tides higher than usual.
 - In the cycle's other half, the situation is reversed, with high tides higher and low tides lower.
- The moon wobble impacts the gravitational pull of the moon, and therefore, indirectly
 influences the ebb and flow of tides here on the Earth.
- The lunar cycle is expected to shift again by mid-2030, and in the coming phase, the **tides** will amplify once again.

Link between Moon Wobble and Climate Change

- The upcoming changes in the lunar cycle will pose a serious threat, as the amplified high
 tides coupled with the rising sea levels will make the risk of flooding far greater across
 all coastal regions of the globe.
- The study predicts that the high tide-associated floods, also known as nuisance floods or sunny day floods, may occur in clusters that could last for months or even for longer periods.

6.17 WHAT IS ISRAELI SPYWARE PEGASUS?

Recently, the Indian Express reported that the popular messaging platform **WhatsApp was used to spy on journalists and human rights activists in India** earlier that year.

• The surveillance was carried out using a **spyware tool** called **Pegasus**.





Spyware Pegasus?

- All spyware do what the name suggests i.e. **they spy on people through their phones.**
- Pegasus works by **sending an exploit link**, and if the target user clicks on the link, the malware or the code that **allows the surveillance is installed on the user's phone.**
- It is developed by an **Israeli firm**, the **NSO Group**.

Complaints against Spyware Pegasus

- The first reports on **Pegasus's spyware operations emerged in 2016**, when Ahmed Mansoor, a human rights activist in the UAE, was targeted with an SMS link.
- In September 2018, the Citizen Lab showed that Pegasus delivers a chain of zero-day
 exploits to penetrate security features on the phone and installs Pegasus without the
 user's knowledge or permission.
- In December 2018, Montreal-based Saudi activist Omar Abdulaziz lodged a case against the NSO Group in a court in Tel Aviv, alleging that his phone had been infiltrated using Pegasus.
- In May 2019, the Financial Times reported that Pegasus was being used to exploit WhatsApp and spy on potential targets.

Concerns associated with Spyware Pegasus

- The Citizen Lab post said Pegasus can send back the target's private data, including
 passwords, contact lists, calendar events, text messages, and live voice calls from
 popular mobile messaging apps.
- The target's phone camera and microphone can be turned on to capture all activity in the phone's vicinity, expanding the scope of the surveillance.
- The malware can also access email, SMS, location tracking, network details, device settings, and browsing history data.
- The **key features** of Pegasus are:
 - o Ability to access password-protected devices;





- o Being totally transparent to the target;
- Leaving no trace on the device;
- Consuming minimal battery, memory and data so as to not arouse suspicion in more alert users;
- o A self-destruct mechanism in case of risk of exposure; and
- Ability to retrieve any file for deeper analysis

How do zero-click attacks work?

- A zero-click attack helps spyware like Pegasus gain control over a device without human interaction or human error.
- Most of these attacks **exploit software which receive data** even before it can determine whether what is coming in is trustworthy or not, like an email client.
- The vulnerability allows remote code execution capabilities and enables an attacker to remotely infect a device by sending emails that consume a significant amount of memory.
- The zero-click attacks are hard to detect given their nature and hence even harder to prevent.

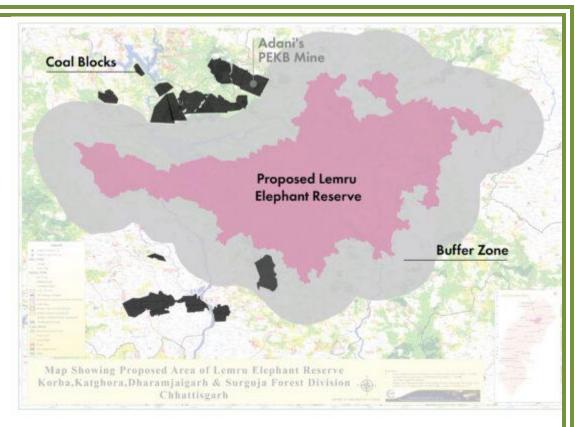
6.18 WILL CHHATTISGARH'S PROPOSED ELEPHANT RESERVE HAVE A SMOOTH CORRIDOR?

Recently, the **Chhattisgarh government is facing objections** from its own legislators, including a minister, to its plan to further decrease the area of the proposed **Lemru Elephant Reserve**.

- The government has **proposed to decrease the area to 450 sq km** as against the previous plan to stretch it to 3,287 sq km from the current 1,995 sq km.
- The proposed Lemru elephant reserve is a **natural elephant habitat with very few human habitations** and has been an elephant bearing area from ancient times.







The **final area proposed for the reserve is 1,995.48 sq km**, significantly higher than the 450 sq km proposed earlier.

- The reserve is in a **coal-bearing area** with an estimated value of Rs 100,000 crore.
- The identified reserve area has very good availability of elephant food and has approximately 27 perennial rivulets of water present inside the forest for the elephants.
- The people dwelling in the forests of Surguja, Korba, Jashpur and Raigarh districts in Northern Chhattisgarh have been witnessing the migration of elephants into their forests.
- The rampant open cast mining in Jharkhand had **destroyed elephant habitats**, which ultimately pushing the pachyderms to the rich forest regions in North Chhattisgarh.





- The mining has driven the elephants in search of new forest territories, which takes
 them through human-dominated habitats, aggravating incidents of human-elephant
 interactions that end in injury or death.
- The human-elephant conflict is a **symptom of inappropriate land-use practices** such as diversion of forest for development and mining activities.
- It leads to loss or fragmentation of elephant habitats and traditional routes which leads to loss of food and water for the elephants in the forest.
- The issue of **human-elephant conflict was part of the election discourse** in at least the areas that are severely impacted by the human-elephant interaction.
- It is important to **restore elephant corridors from the pressure of mining activities** in the forest and to mitigate human-elephant interactions in the state.
- It is recommended to adopt an **integrated land use planning** and emphasis of the state governments should be to take appropriate steps to secure and restore corridors.

6.19 GENOMIC VARIANTS OF ORAL CANCER (dbGENVOC)

Recently, the DBT-National Institute of Biomedical Genomics (NIBMG), Kalyani has created a **database of genomic variations** in oral cancer called 'dbGENVOC'.

dbGENVOC

- It is a browsable online database of **GENomic Variants of Oral Cancer** and is a free resource.
- It is a **comprehensive**, **flexible database framework**, developed with an aim to allow potential users to access, query, browse and download clinically relevant somatic and germline variation data from Indian oral cancer patients.
- It contains:



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- 24 million somatic and germline variants derived from whole exome sequences of 100 Indian oral cancer patients and whole genome sequences of 5 oral cancer patients from India;
- **Somatic variation data from 220 patient samples** drawn from the USA and analyzed by TCGA-HNSCC project; and
- Manually curated variation data of 118 patients from recently published peer-reviewed publications
- It has a **built-in powerful search engine** alongwith a catalogue of genomic variants.
- It is **first of its kind database** in the world.
- It also allows a reasonable extent of statistical and bioinformatic analysis to be carried out online, including identifying variants in associated altered pathways in oral cancer.
- It will be **updated annually with variation data from new oral cancer patients** from different regions of India and Southeast Asia.
- It will **store variant calls from various studies** that uses massively parallel sequencing to generate genome-scale data.
- It has the **potential to support advances** in oral cancer research.
- It will be a major step in moving forward from simply cataloguing variants to gain insight into their significance.

6.20 LAMBDA COVID VARIANT: LAMBDA, VARIANT OF INTEREST

Amid **Delta variant of the SARS-CoV-2 coronavirus** continues to drive the rise in infections around the world, another variant, **Lambda**, is increasingly being seen by scientists and health experts as a new emerging threat.





Lambda Covid Variant

- It is previously known by its formal **scientific name C.37**.
- In June 2021, the World Health Organization has designated the Lambda variant, as
 the seventh and newest "variant of interest".
- It has been the **dominant variant in Peru** and other countries of South America.
- The Lambda variant has **not yet been found in the Indian population**, but has been detected in the UK and other European countries.

Mutations in Lambda Covid Variant

- According to the WHO, the Lambda variant has at least seven significant mutations
 in the spike protein (the Delta variant has three).
- It could have a range of implications, including the possibility of increased transmissibility or enhanced resistance to antibodies, created either through natural infection or vaccination.
- It had greater infectivity than the Alpha and Gamma variants (known to have originated in the UK and Brazil respectively).
- The study by researchers at the Chile reported decreased effectiveness of the Chinese
 Sinovac vaccine (Coronavac) against the Lambda variant.

'Variant of interest'

- It implies that the **genetic changes involved are predicted or known** to affect transmissibility, disease severity, or immune escape.
- It is an acknowledgement of the fact that the variant has caused significant community transmission in multiple countries and population groups.





• There are currently **seven variants**, including the Lambda that the WHO classifies as "variants of interest".

6.21 DISCRETE AURORAS ON MARS

Recently, the **UAE's Hope spacecraft** has captured images of **glowing atmospheric lights** in the Red Planet's night sky, known as **discrete auroras**.

Phenomena of Auroras on Earth

- The Auroras are caused when charged particles ejected from the Sun's surface, called the solar wind, enter the Earth's atmosphere.
 - The particles from solar wind are harmful, and our planet is protected by the geomagnetic field, which preserves life by shielding us from the solar wind.
- At the north and south poles, some of the solar wind particles are able to
 continuously stream down, and interact with different gases in the atmosphere to
 cause a display of light in the night sky.
- It is known as an **aurora which is seen from the Earth's high latitude regions** (called the auroral oval), and is **active all year round**.
 - In the **northern part** of our globe, the **polar lights are called aurora borealis or Northern Lights**, and are seen from the US (Alaska), Canada, Iceland, Greenland, Norway, Sweden and Finland.
 - In the **south**, they are called **aurora australis or southern lights**, and are visible from high latitudes in Antarctica, Chile, Argentina, New Zealand and Australia.

Auroras in Mars





- Unlike Earth, which has a strong magnetic field, the Martian magnetic field has
 largely died out because the molten iron at the interior of the planet has cooled.
- The Martian crust, which hardened billions of years ago when the magnetic field still existed, retains some magnetism.
- In contrast with Earth, which acts like one single bar magnet, magnetism on Mars is unevenly distributed, with fields strewn across the planet and differing in direction and strength.
- The disjointed fields channel the solar wind to different parts of the Martian atmosphere, **creating "discrete" auroras** over the entire surface of the planet as charged particles interact with atoms and molecules in the sky.

Objectives of UAE's Hope Orbiter

- The primary objective of the mission is to **study Martian weather dynamics**.
- The probe will look into how weather changes the escape of hydrogen and oxygen into space by correlating the lower atmosphere and upper atmosphere conditions.
- The scientists will be able to look into why Mars lost so much of its early atmosphere
 and liquid water by measuring how much hydrogen and oxygen is spilling into space.
- The scientists will have a **better understanding of the climate dynamics** of different layers of Mars' atmosphere with the information gathered during the mission.

6.22 CoWIN GLOBAL CONCLAVE 2021

Recently, the Prime Minister Shri Narendra Modi addressed the CoWIN Global Conclave 2021.

Highlights





- The conclave aims to share India's experience with regards to universal vaccination to fight Covid-19 through CoWIN.
- The conclave is being organised in a joint initiative by the Union Ministry of Health
 Family Welfare, Ministry of External Affairs and the National Health
 Authority (NHA).
- About 50 countries, including Canada, Mexico, Nigeria, Panama and Uganda, have shown interest in adopting CoWIN to run their vaccination drives.

CoWIN

- It is Covid Vaccine Intelligence Work.
- It is a platform which is being used in India to **help people register for vaccination against Covid-19**, book a slot and download vaccination certificates.
- It was introduced by the central government in January 2021 when the vaccination drive against Covid-19 began in the country.
- It is a **website for beneficiaries and for officials** associated with the vaccination process, there is a different mobile application as well.

Features of CoWIN Platform

- It allows beneficiaries to book a vaccination slot as they can choose a day and time slot as per their preference.
- It also allows the user to add four family members in their profile and book slots for them as well.
- The platform also offers the option of linking one's passport with that of the Covid-19 vaccine certificate.

Objectives of COWIN Platform





- **Equitable vaccination** at universal scale & transparent distribution for all citizens;
- **Inclusive distributio**n to align stakeholders and remove information asymmetry;
- **Dynamic architecture** that evolves and accommodates change easily; and
- Tailored interface portals for citizens, vaccinators as well as administrators

6.23 SOCIAL BEHAVIOUR OF MALE ASIAN ELEPHANTS

Recently, the researchers from Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) studied social behaviour of male Asian elephants.

Highlights

- The study had collected and analyzed data on behaviour of identified wild Asian elephants of Nagarahole and Bandipur National Parks.
- They found that the **time spent by male Asian elephants** in all-male and mixed-sex groups depended on the age of the male.
 - The adult Asian male elephants preferred to spend their time alone than in mixed-sex or in all-male groups.
 - The old males were found mostly in the company of their age
 peers and less frequently with young males.
- The adult male Asian elephants are less social than females and they enter musth i.e. a mate-searching strategy for old (above 30 years of age) males.
- The researchers hypothesised that when the **adult males enter musth**, **dominance relationships** may affect the number of mating opportunities they procure.
- The team observed male elephants and identified them using features of their ears, tails, and tusks and recorded whether males associated with each other in the presence or absence of females.





- The results showed that all-male groups (in the absence of females) were rare and small.
- In contrast, African savannah elephants have been found to spend more time in all-male groups and to form larger groups, and young males preferred to associate with older males.

Asian Elephants

- The Asian elephant (Elephas maximus) is polygynous, with males and females exhibiting different morphologies and adult lifestyles.
- It is the largest land mammal on the Asian continent.
- It inhabits dry to wet forest and grassland habitats in 13 range countries spanning South and Southeast Asia.
 - It lives in forested regions of India and throughout **Southeast Asia**, including **Myanmar**, **Thailand**, **Cambodia**, and **Laos**.
- It is listed as 'Endangered' under the IUCN Red List of Threatened Species.
- It can be identified by their **smaller**, **rounded ears** and an African elephant's ears resemble the continent of Africa.
- It is protected under **Schedule I** of the Wildlife Protection Act, 1972.
- It is included in **Appendix I** of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Bandipur National Park

- It is located in Chamarajanagar district of **Karnataka**.
- It is the part of **Nilgiri Biosphere Reserve** making it largest protected area in Southern India and largest habitant of Wild Elephants in South Asia.





- It shares its boundary with 3 other National park namely Nagarahole National Park,
 Wayanad National Park and Mudumalai National park.
- Tigers, Indian Elephants, Leopard, Dhole, Sambar, Sloth bear, Chital many more animals and Birds can be spotted in the Bandipur National park.
- The reserve was brought under **Project Tiger in 1973.**

6.24 SHORT SPAN BRIDGING SYSTEM (SSBS)

Recently, the Ministry of Defence has announced the induction of **Short Span Bridging System** (SSBS) into the Indian Army.

Short Span Bridging System (SSBS)

- It is designed and developed by the Research & Development Establishment Pune, a
 premier engineering laboratory of Defence Research and Development
 Organisation (DRDO).
 - The **production agency** of SSBS is **M/s L&T Ltd.**
- It plays a crucial role of **bridging the gaps up to 9.5 m as a single span** providing a 4 m wide, fully decked roadway, ensuring faster movement of the troops.
- It involved the **development of two prototypes** of 5 m SSBS on Tatra 6×6 chassis and another two prototypes of 10 m SSBS on Tatra 8×8 re-engineered chassis.
- It is **compatible with Sarvatra Bridging System** (75 m), where the last span requires covering gaps less than 9.5 m.

Significance of Short Span Bridging System (SSBS)

- It will help in **quick movement of troops** and enhance the mobilization of resources.
- It will give a boost to the **fast-growing Indian defence industrial ecosystem**.





- It will help the industry to contribute towards 'Atmanirbhar Bharat'.
- It will enhance the mechanised formation in western front capability and operation speed will also increase.
- It will help the force **overcome geographical obstacles** like small rivers and canals in case of operations along the western borders with Pakistan.

6.25 WORLD ASTEROID DAY

Recently, Nehru Science Centre, Mumbai in association with Vigyan Prasar and Akash Ganga Centre for Astronomy commemorated World Asteroid Day.

World Asteroid Day

- It started in 2016 in order to make people aware about the possible impact of Asteroids on Earth and its habitants.
- It is **celebrated annually on 30th June** as per United Nations resolution.
- It came into being to commemorate the anniversary of the Siberian Tunguska disaster in 1908.
 - The resolution stated the day would be set aside to observe each year
 at the international level the anniversary of the Tunguska impact
 over Siberia.
- The day was co-founded by Stephen Hawking, Grigorij Richters, Danica Remy, Apollo
 9 astronaut Rusty Schweickart, and Brian May.
- The decision was made based on a proposal by the Association of Space Explorers, which was endorsed by **Committee on the Peaceful Uses of Outer Space (COPUOS).**

Asteroids





- Asteroids are **rocky objects** that orbit the Sun, much smaller than planets.
 - They are also called **minor planets**.
- Asteroids are divided into three classes:
 - First, those found in the main asteroid belt between Mars and Jupiter, which is estimated to contain somewhere between 1.1-1.9 million asteroids.
 - The **second group is that of trojans**, which are asteroids that share an orbit with a larger planet.
 - NASA reports the presence of Jupiter, Neptune and Mars trojans.
 - In 2011, they reported an Earth Trojan as well.
 - The third classification is Near-Earth Asteroids (NEA), which have orbits that pass close by the Earth.

Committee on the Peaceful Uses of Outer Space (COPUOS)

- It was set up by the General Assembly in 1959 to govern the exploration and use
 of space for the benefit of all humanity for peace, security and development.
- It was tasked with reviewing international cooperation in peaceful uses of outer space, studying space-related activities that could be undertaken by the United Nations.
- It has two subsidiary bodies i.e. the **Scientific and Technical Subcommittee**, and the **Legal Subcommittee**, both established in 1961.
- It reports to the Fourth Committee of the General Assembly, which adopts an annual resolution on international cooperation in the peaceful uses of outer space.





6.26 MOD ISSUES RFP FOR CONSTRUCTION OF SIX P-75(I) SUBMARINES FOR INDIAN NAVY

Recently, the Ministry of Defence has issued **Request of Proposal (RFP)** for the first acquisition programme under the **Strategic Partnership Model** for construction of **six AIP fitted Conventional Submarines** named **Project 75(India)** for the Indian Navy.

Highlights

- The RFP was issued to shortlisted **Strategic Partners (SPs) or Indian Applicant Companies** for the project viz, M/s Mazagaon Dock Shipbuilders Limited (MDL) and M/s Larsen & Tubro (L&T).
- The project cost is over **Rs 40,000 crore**.

Project-75(India)

- It is a follow-on of the **Project 75 Kalvari-class submarine** for the Indian Navy.
- The P-75 (I) contract will be awarded to MDL (Mazagon Docks Ltd) or Larsen &Toubro.
- It is part of a **30-year submarine building plan** that ends in 2030.
- The 'I' symbolizes the attempt to give India the **ability to design and produce submarines** as part of a 30-year submarine building programme.
- The goal is to **produce 24 conventional submarines** by 2030 (now been reduced to 18).







- It offers a chance to stabilise the entire submarine line on an in-service platform, whether French, Russian or German.
- Under the Project 75 (I), the navy will operate six Scorpene submarines by 2023 which
 will be in service until 2050 and beyond.

Significance of Project-75(India)

- It envisages indigenous construction of six modern conventional submarines with contemporary equipment, weapons & sensors including Fuel-Cell based AIP (Air Independent Propulsion Plant).
- It would provide a major boost to the indigenous design and construction capability of submarines in India, in addition to bringing in the latest submarine design and technologies as part of the project.
- It would aid in **boosting the core submarine/ship building industry**.





• It would greatly **enhance manufacturing/industrial sector**, especially the MSME by development of an industrial eco-system for manufacture of associated spares/systems/equipment related to submarines.

It aims to give the navy a fleet of modern conventional submarines with greater endurance and capabilities.

6.27 IIT ROPAR DEVELOPS FIRST-OF-ITS-KIND OXYGEN RATIONING DEVICE – AMLEX

Recently, the Ministry of Education has launched the **Oxygen Rationing Device – AMLEX**.

AMLEX



• It is **first-of-its-kind** Oxygen rationing device.





- It supplies a required volume of oxygen to the patient during inhalation and trips when the patient exhales CO2.
- It can operate on both portable power supply (battery) as well as line supply (220V-50Hz).
- It has been developed by the **Indian Institute of Technology**, **Ropar**.
- It can be easily connected between oxygen supply line and the mask worn by the
 patient.
- It uses a sensor which senses and successfully detects inhalation and exhalation of the user in any environmental condition.

6.28 BIRD FLU DEATH AT AIIMS

Recently, an 11-year-old boy died of **H5N1 avian influenza** in Delhi which is the first recorded death due to the bird flu in India in 2021.

H5N1 Avian Influenza?

- Bird flu or avian influenza is a disease caused by avian influenza Type A
 viruses found naturally in wild birds worldwide.
- The virus can **infect domestic poultry** including chickens, ducks and turkeys.
- Avian Influenza type A viruses are classified based on two proteins on their surfaces i.e. Hemagglutinin (HA) and Neuraminidase (NA).

Bird Flu Infection in Humans

 There have been reports of avian and swine influenza infections in humans including A(H1N1), A(H1N2), A(H5N1), A(H7N9), etc.





- The **first report of human H5N1 infection was in 1997** and currently, over 700 human cases of Asian Highly Pathogenic Asian Avian Influenza A (HPAI) H5N1 virus have been reported.
- The most common route of **virus transmission is direct contact** i.e. when a person comes in close contact with infected birds, either dead or alive.
- Humans can also be affected if they come in contact with contaminated surfaces or air near the infected poultry.
- There is no sufficient evidence suggesting the spread of the virus through properly cooked meat.

Symptoms of avian influenza

- According to US CDC, the reported signs and symptoms of avian influenza A virus
 infections in humans have ranged from mild to severe influenza-like illness.
 - Fever, cough, sore throat, muscle aches, nausea, abdominal pain, diarrhea, vomiting
 - Severe respiratory illness (e.g., shortness of breath, difficulty breathing, pneumonia, acute respiratory distress, viral pneumonia, respiratory failure)
 - Neurologic changes (altered mental status, seizures)

High Risk group under avian influenza

- The **children and adults below 40** were seen to be the most affected.
- The **mortality was high** in 10-19 years old.

Human to Human Transmission of Bird Flu





- The transmission of the virus from birds to humans is rare and sustained humanto-human transmission of the H5N1 virus has not yet been established.
- Avian influenza or bird flu is predominantly a zoonosis, and there is no evidence of sustained human-to-human transmission so far.

6.29 INDIAN SCIENCE TECHNOLOGY AND ENGINEERING FACILITIES MAP (I-STEM) IS IN THE NEWS?

Recently, the Office of Principal Scientific Advisor to GoI has informed that in the first phase, the I-STEM portal is listed with more than 20,000 pieces of equipment from 1050 institutions across the country and has more than 20,000 Indian researchers.

 It has been accorded extension for five years i.e. until 2026 and enters its second phase with added features.

About I-STEM Portal

- It is the national web portal for sharing R&D facilities
- It is an initiative of Office of the Principal Scientific Adviser to the Govt. of India (PSA, GOI) under the aegis of Prime Minister Science, Technology and Innovation Advisory Council (PM-STIAC) mission.

Objectives of I-STEM Portal





Why I-STEM



- Resources of the Govt. being LIMITED, cannot provide facilities to al
- Existing public-funded facilities often under-utilised
- Unreasonable degree of Duplication of Resources (at present)
- Many research ideas get lost due to non-availability of resources
- No Database of the Outcomes of Funded Projects in Public Domain; So Duplication of Research efforts occurs
- Benefits/Appropriate use of R&D carried out does not reach society often enough

- Its goal is to **strengthen the R&D ecosystem of the country** by connecting researchers with resources.
- It is aimed at **promoting technologies and scientific equipment development indigenously**, and providing necessary supplies and supports to researchers.
- The goals of I-STEM include serving as a platform for generating technical manpower through a variety of training programs conducted by Regional I-STEM Hubs, which would form a natural partner and a complement to the Clusters.

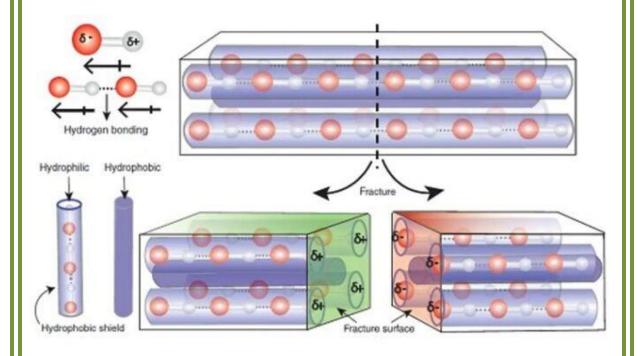
6.30 INDIAN SCIENTISTS MAKE BREAKTHROUGH DISCOVERY OF MATERIAL THAT REPAIRS ITSELF

Scientists have developed **piezoelectric molecular crystals** that **repair their own mechanical damage** without the need for any external intervention, the Department of Science and Technology





(DST) said. Piezoelectric crystals are a class of materials that generate electricity when it undergoes a mechanical impact.



- Devices that are used daily often break down due to mechanical damage, forcing users either to repair or replace them.
- This decreases the life of the equipment and increases maintenance costs. In many cases, like in a **spacecraft**, human intervention for restoration is not possible.
- Keeping such necessities in mind, researchers from the Indian Institute of Science
 Education and Research (IISER) Kolkata, in collaboration with IIT Kharagpur, have
 developed piezoelectric molecular crystals that repair themselves from mechanical
 damages without need for any external intervention, the DST said in a statement.





- Called bipyrazole organic crystals, the piezoelectric molecules developed by the scientists recombine following mechanical fracture without any external intervention, autonomously self-healing in milliseconds with crystallographic precision.
- In these molecular solids, due to the unique property of generating electrical charges
 on mechanical impact, the broken pieces acquire electrical charges at the crack
 junction, leading to attraction by damaged parts and precise autonomous repair.
- These materials with perfect internal arrangement of molecules or ions are called 'crystals' which are abundant in nature.
- The material may find application in high-end micro-chips, high precision mechanical sensors, actuators, and micro-robotics.
- Further research into such materials may eventually lead to the development of smart gadgets that self-repair cracks or scratches.

6.31 CHANDRAYAAN-3 IS LIKELY TO BE LAUNCHED DURING THIRD QUARTER OF 2022

Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh said that Chandrayaan-3 is likely to be launched during third quarter of 2022 assuming normal work flow henceforth. In a written reply to a question in the Lok sabha today, he said, realization of Chandrayaan-3 is in progress.

The Indian Space Research Organisation (ISRO) is working simultaneously on the Chandrayaan-3 and Gaganyaan.

Chandrayaan – 3

Chandrayaan-3 is the successor to the Chandrayaan-2 mission and it will likely attempt
another soft-landing on the lunar surface.





- It will be almost a repetition of Chandrayaan-2 mission in the configuration of spacecraft, the landing spot on the moon and the experiments to be conducted on the lunar surface.
- Although scores of landers sent by Russia, the U.S. and the Chinese have explored the
 moon's surface, so far, no other agency has landed in the southern hemisphere of
 the moon. ISRO hopes to be the first to do so.
- As per ISRO, the total cost of Chandrayaan-3 mission will be over Rs 600 crores. In comparison, the total cost of the Chandrayaan-2 mission was Rs 960 crores.

Gaganyaan

- Gaganyaan, announced by the Prime Minister in August 2018, is the ₹10,000-crore Indian human space flight scheduled for 2022. It is designed to have 3-7 crew members spend 3-7 days in space in a 400-km orbit.
- The first of the two **pre-Gaganyaan flights with a humanoid** will be launched in 2020end along with some of the six shortlisted microgravity experiments.
- ISRO has already constituted an advisory committee for the Gaganyaan. ISRO has also
 identified four astronauts whose training will commence in Russia from January in 2020.

Second Spaceport in Tamil Nadu

- Tamil Nadu government has started acquiring 2,300 acres of land in **Thoothukudi** district for **ISRO's second launch port**. Currently satellites are launched from the **Sriharikota launch centre** in Andhra Pradesh.
- Thoothukudi offers a **locational advantage to launch** towards India's South. When ready, the new port will handle mainly the **Small Satellite Launch Vehicle (SSLV)** that is under development. SSLVs are meant to put a **payload of up to 500 kg** in space.
- The space agency ISRO preferred its second spaceport at Thoothukudi, located on the east coast and near the equator for the following reasons:





Speed Boost To Rockets

 The Earth's rotation provides a speed boost to rockets launched in the eastward direction, and headed for an equatorial orbit around the planet.

Save Lives

• If there is a failure during the launch, then the debris from an explosion would fall directly into the Bay of Bengal instead of land, which would have less impact on damaging property or taking lives. Further, a southern spaceport reduces the distance to the South Pole and ensures access to a vast, unpopulated area below the flight path.

Fuel Efficiency

- Another advantage of the new spaceport include straight southward launches as the current rockets have to be maneuvered around Sri Lanka.
- At present, once the rocket lifts off from Sriharikota, it flies further east to avoid Sri Lanka and then steers itself back towards the South Pole. This manoeuvre requires more fuel, and for a smaller rocket like the SSLV, this could hamper its limited payload capacity and reduce the rocket's value for Antrix, ISRO's commercial ventures operator.

6.32 INTERNATIONAL TIGER DAY

Recently, at the virtual meeting celebrating **International Tiger Day (29th July)**, Prime Minister of India reiterated India's commitment to ensuring safe habitats for its tigers and nurturing tiger-friendly eco systems.

• 14 Tiger Reserves in India received the accreditation of the Global Conservation Assured|Tiger Standards (CAITS).

Key Points





- Conservation Status of Tiger:
 - Indian Wildlife (Protection) Act, 1972: Schedule I
 - International Union for Conservation of Nature (IUCN)Red List:
 - Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I.
- Significance of Tiger Conservation:
 - Tiger conservation is a **symbol of conservation of forests.**
 - The tiger is a unique animal which plays a pivotal role in the health and diversity of an ecosystem.
 - It is a top predator which is at the apex of the food chain and keeps the population of wild ungulates (primarily large mammals) in check.
 - Thus, Tiger helps in maintaining the balance between prey herbivores and the vegetation upon which they feed.
 - Therefore, Tiger Conservation is not just about saving a beautiful animal.
 - It is about making sure that we live a little longer as the forests are known to provide ecological services like clean air, water, pollination, temperature regulation etc.
 - Further, the significance of Tiger conservation can be reflected by the Status of Leopards, Co-predators and Megaherbivores-2018' report.





- According to the report, the overall leopard population in the tiger range landscape of India in 2018 was estimated at 12,852.
- This is a **significant increase** from the 2014 figure that was 7,910 in forested habitats of 18 tiger bearing states of the country.
- The report is a testimony to the fact that conservation of tigers leads to the conservation of the entire ecosystem

Tiger Conservation Projects in India:

- Project Tiger 1973: Project Tiger is a Centrally Sponsored Scheme of the Ministry of
 Environment, Forests and Climate Change (MoEFCC) launched in 1973. It provides
 havens for tigers in the country's national parks.
- National Tiger Conservation Authority (NTCA): It is a statutory body under the MoEFCC and was established in 2005 following the recommendations of the Tiger Task Force.

India's Tiger Conservation Status:

- India is home to over 70% of the tiger population globally.
- India is home to 51 tiger reserves spread across
 18 states and the last tiger census of
 2018 showed a rise in the tiger population.





 India achieved the target of doubling the tiger population four years ahead of schedule (2022)of the Petersburg Declaration on tiger conservation.

India's strategy of tiger conservation attaches topmost importance to involving local communities.

Conservation Assured | Tiger Standards (CA|TS):

- CA|TShas been agreed upon as an accreditation tool by the global coalition of Tiger
 Range Countries (TRCs) and has been developed by tiger and protected area experts.
 - There are currently 13 tiger range countries –India, Bangladesh, Bhutan, Cambodia, China, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Russia, Thailand and Vietnam.
- CA|TS is a set of criteria which allows tiger sites to check if their management will lead
 to successful tiger conservation.
- It was officially launched in 2013.
- The Global Tiger Forum (GTF), an international NGO working on tiger conservation, and World Wildlife Fund India are the two implementing partners of the National Tiger Conservation Authority for CATS assessment in India.
- 14 Tiger Reserves which have been accredited are:
 - Manas, Kaziranga and Orang Tiger Reserve in Assam,
 - **Satpura, Kanha** and **Panna Tiger Reserve** in Madhya Pradesh,
 - **Pench Tiger Reserve** in Maharashtra,
 - Valmiki Tiger Reserve in Bihar,
 - **Dudhwa Tiger Reserve** in Uttar Pradesh,





- Sunderbans Tiger Reserve in West Bengal,
- Parambikulam Tiger Reserve in Kerala,
- Bandipur Tiger Reserve of Karnataka
- Mudumalai and Anamalai Tiger Reserve in Tamil Nadu.

6.33 SPACE ACTIVITIES BILL IN PIPELINE TO REGULATE, PROMOTE PRIVATE PARTICIPATION

Recently, the Union Minister of State (Independent Charge) Science & Technology has said that the **Space Activities Bill** is under active consideration of the Government.

Genesis

- The Indian National Space Promotion and Authorization Centre (IN-SPACe) was created as an independent nodal agency under the Department of Space.
- Its mandate is to promote, hand-holding, licensing, authorization and monitoring
 of private space activities in India.
- The Access to Department of Space (DOS) facilities and expertise are extended to private entities to support their space activities.
- The Government of India is encouraging transfer of technologies developed in the field of space to Indian industries.

Space Activities Bill?

It has proposed that the Central government will form a Space Activity Regulatory
 Mechanism to "develop a space activity plan with established goals, tasks and principles.





- It will include the comprehensive development of space sector and ground segments of space infrastructure and technologies for commercial and economic needs of the country.
- It mandates the Central Government to arrange to provide authorisation to launch
 or operate commercial space activity including corporate and other organisational
 structure either directly or through any agency in the manner as may be prescribed.
- It provides for the **establishment of a regulatory mechanism through an appropriate body**, by the Central Government for the purpose of authorization and licensing of space activities.

Need for Space Activities Bill

- A need for **national space legislation for supporting the overall growth** of the space sector in India has been acutely felt of late.
- The Draft Space Activities Bill, 2017 has said that India's space activities are very unique towards delivering results through various successful accomplishments.
- It was felt that **introduction of a space-specific legal regime instead of the existing regulatory or restrictive regime**, should only enable further growth of space activities in India.
- It will give a **major boost to the Indian Space industry**, which for years has felt constrained due to lack of clear and favorable policies.
- The **Indian Space economy is worth \$7 billion**, which is around 2% of the global Space economy.
 - The report noted that India's Space sector needs to grow at approximately 48% CAGR over the next few years to reach its target of \$50 billion.

Significance of Space Activities Bill





- It will include aspects pertaining to regulation and promotion of private players in space sector.
- The IN-SPACe which is under creation will have Safety and Security Directorate to
 ensure security of ISRO installations when allowing access to private entities.
- It aims to encourage **enhanced participation of non-governmental/private sector agencies** in space activities in India, in compliance with international treaty obligations.
- It will facilitate **private sector participation in space activities under authorisation** and **supervision** by the government.
- The provision on liability for damages caused by space activities of licensee, provides for a risk-sharing mechanism, by which the Central Government may determine the quantum of liability to be borne by the licensee.

What kind of legal cover space activities presently has in India?

- The outer space activities are governed by treaties and principles evolved under UN
 Committee on Peaceful Uses of Outer Space (UNCOPUOS) internationally.
- The Committee on the Peaceful Uses of Outer Space (COPUOS) was set up by the UN
 General Assembly in 1959 to govern the exploration and use of space for the benefit
 of all humanity for peace, security and development.
- **India is also a party** to the Outer Space Treaty, 1967.
- The Constitution of India provides for the implementation of international treaty obligations under Articles 51 and 253.
- The "space" as a subject is not mentioned in the Union List but Parliament retains residuary legislative power in respect of "any matter not enumerated" in any of the three lists.





6.34 GEO-IMAGING SATELLITE "EOS-03" IS SCHEDULED FOR LAUNCH IN THIRD QUARTER OF 2021

Recently, the Union Minister of State (Independent Charge) Science & Technology said that the **Geo-imaging satellite"EOS-03"** is scheduled for launch in third quarter of 2021.

Geo-imaging satellite "EOS-03"

- It is a **geo-imaging satellite** for **Earth Observation** from **Geostationary Orbit**.
- The technology is developed by the Indian Space Research Organisation (ISRO) and it consists of capabilities including:
- Imaging the whole country4-5 times daily
- In addition to natural disasters, EOS-03 would also enable monitoring of water bodies,
 crops, vegetation condition, forest cover changes
- It would enable near-real time monitoring of natural disasters like floods & cyclones.

Small Satellite Launch Vehicle (SSLV)

- It is ideal for the on-demand, quick turn-around launch of small satellites.
- The major technologies developed as part of the realisation of the SSLV are flexible
 nozzle control with electro-mechanical actuators for all stages, miniaturized
 avionics and a velocity trimming module in the upper stage for precise satellite injection.
- It is a cost-effective, three stage and all-solid launch vehicle with a payload capability of 500 kg to 500 km planar orbit or 300 kg to Sun Synchronous Polar Orb





7.1 DEBATE ON KONGU NADU IS IN THE NEWS?

Recently, a list of new Union Cabinet ministers issued by the BJP has triggered a debate in political circles in Tamil Nadu by referring to 'Kongu Nadu'.

About Kongu Nadu Region

- It is **neither a place with a PIN code** nor a **name given formally** to any region.
- It is a commonly used name for part of **western Tamil Nadu**.
- In Tamil literature, it was referred to as **one of the five regions of ancient Tamil Nadu**.
- There were mentions of 'Kongu Nadu' in Sangam literature as a separate territory.
- In the present state of Tamil Nadu, the term is informally used to refer to a region that includes the districts of Nilgiris, Coimbatore, Tirupur, Erode, Karur, Namakkal and Salem, as well as Oddanchatram and Vedasandur in Dindgul district, and Pappireddipatti in Dharmapuri district.
- The name derives from KonguVellalaGounder, an OBC community with a significant presence in these districts.
- o It is considered to be a stronghold of the **Gounder community**.
- The region includes prominent businesses and industrial hubs at Namakkal, Salem,
 Tirupur and Coimbatore.

Ground for the allegations about a planned bifurcation

- Unlike Telangana or Uttarakhand, there has never been a demand or discussions about
 a separate Kongu Nadu in the modern political history of Tamil Nadu.
- It is observed that this move is a **counter from the BJP to the DMK's assertive stand** in using the term **OndriyaArasu** (**Union government**) rather than **MadhiyaArasu** (**central government**).
- The protests also erupted in Coimbatore, where copies of the local newspaper which published the "Tamil Nadu to be divided" article was burnt by pro-Tamil groups.

Counter arguments by central government

- The BJP has indeed denied any move to divide the state but it has also referred to the **bifurcation of Andhra Pradesh and Uttar Pradesh**.
- The leaders have **not directly extended their support to bifurcation** but some have hinted that the move should be considered if **it's the mandate of the people**.





Constitutional Provisions for Creation of New States

- Article 3 assigns to Parliament the power to enact legislation for the formation of new States.
- The Parliament may **create new States** in a number of ways, namely by:
- Separating territory from any State,
- Uniting two or more States,
- Uniting parts of States and
- Uniting any territory to a part of any State
- The Parliament's power under Article 3 extends to increasing or diminishing the area of any State and altering the boundaries or name of any State.
- A bill calling for formation of new States may be introduced in either House of Parliament only on the recommendation of the President.
- A bill must be referred by the President to the concerned State Legislature for expressing its views to Parliament if it contains provisions which affect the areas, boundaries or name of that State.

7.2 EXAMINING SUB-CATEGORISATION WITHIN OBC IN CENTRAL LIST

Recently, the Union Cabinet has approved the **Eleventh Extension of the term of the**Commission constituted under Article 340 of the Constitution.

Highlights

- The Commission is constituted to examine the issue of Sub-categorization within Other Backward Classes (OBCs) in the Central List.
- The term of the commission is extended from 31st July 2021 to 31st January 2022.
- The extension shall enable the "Commission" to submit a **comprehensive report on the issue of sub-categorization of OBCs**, after consultation with various stake holders.

Commission for Sub-Categorisation of OBCs

• It was **constituted in 2017** under Article 340 of the Indian Constitution.





- Its objective is to examine to examine the issues of the sub-categorization of Other Backward Classes with the following terms of reference:
 - To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of Other Backward Classes with reference to such classes included in the Central List;
 - To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorisation within such Other Backward Classes; and
 - To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of Other Backward Classes and classifying them into their respective sub-categories
- The four-member Commission is headed by Justice (Retd.) G. Rohini, Chief Justice (Retd.),
 Delhi High Court.
- The commission had been appointed to look into the existing list of OBCs and categorise
 the OBCs that have not benefited from the reservations in government jobs and education.

Article 340 of the Indian Constitution

- It deals with the appointment of a commission to investigate the conditions of backward classes.
- Article 340 (1): The President may by order appoint a Commission consisting of such
 persons as he thinks fit to investigate the conditions of socially and educationally backward
 classes within the territory of India.
 - The Commission shall provide recommendations as to the steps that should be taken by the Union or any State to remove such difficulties and to improve their condition.
- **Article 340 (2):** A Commission so appointed shall investigate the matters referred to them and present to the President a report setting out the facts as found by them and making such recommendations as they think proper.





Article 340 (3): The President shall cause a copy of the report so presented together with a
memorandum explaining the action taken thereon to be laid before each House of
Parliament.

7.3 MODI INAUGURATES AND DEDICATES PRASHAD PROJECTS IN VARANASI, UTTAR PRADESH

Recently, the Prime Minister has inaugurated various development projects in Varanasi which includes Tourist Facilitation Centre under the Project "Development of Varanasi under PRASHAD Scheme – Phase II" and operation of Cruise Boat from Assi Ghat to Raj Ghat.

Highlights

- The project "Development of Varanasi under PRASHAD Scheme Phase II" was approved by the Ministry of Tourism with the cost of Rs. 44.69 crores in Feb. 2018.
- The components viz. 'Panchkoshi Path', 'Pilgrim Facilitation Center', 'Rameshwar',
 'Road Development' and 'Signages' have been successfully completed and dedicated to
 the nation.
- The project "Development of River Cruise in Varanasi under PRASHAD Scheme" was approved by the Ministry of Tourism with the cost of Rs. 10.72 crores in Feb. 2018.
- The components viz. 'Passenger Cum Cruise Vehicle', 'Modular Jetty', 'Audio Visual
 Interventions', and 'CCTV Surveillance' have been successfully completed and dedicated
 to the nation.

PRASHAD Scheme

- It is a National Mission on Pilgrimage Rejuvenation and Spiritual, Heritage Augmentation Drive (PRASHAD).
- It is a **Central Sector Scheme** fully financed by the Government of India.
- It is launched by the **Ministry of Tourism in the year 2014-15** with the objective of **integrated development of identified pilgrimage and heritage destinations.**





- It is aimed at **infrastructure development** such as entry points (Road, Rail and Water Transport), last mile connectivity, basic tourism facilities etc.
- A **Central Sanctioning and Monitoring Committee** is set up for sanctioning of the projects submitted by the Mission Directorate.

Objective of PRASHAD Scheme

- Rejuvenation and spiritual augmentation of important national/ global pilgrimage destinations;
- Enhance tourism attractiveness of identified pilgrimage destinations and heritage cities under integrated tourism development of heritage city in planned, prioritized and sustainable manner;
- Position pilgrimage and heritage tourism as a major engine for its direct and multiplier effects of economic growth and employment generation;
- Follow community-based development through 'Pro-Poor' tourism concept and 'responsible tourism' initiatives;
- Creating awareness among the local communities about the importance of tourism for them
 in terms of increase in sources of income, improved living standards and overall development
 of the area; and
- Enable convergence of state and central government schemes as well as private sector developments for integrated site/ destination development

Selection Criteria for Pilgrimage Site under PRASHAD Scheme

- Pilgrimage footfall: The tourism footfall to any particular pilgrimage destination gives an
 idea about number of tourists visiting that particular destination and its importance on
 national pilgrimage map.
- Cultural, historical & heritage importance of the places: These factors should be deployed for selection of destinations under the program.





- Status on existing level of development: Existing level of development shall encompass the state and center initiatives for development of physical and social infrastructure in pilgrimage footprint of destinations to be considered under PRASHAD.
- Resident population of the destination: Population is directly proportionate to the area
 under the local government and carrying capacity of destination to handle the influx of
 pilgrims.
- **Credibility of Implementation:** It can be evaluated through the UC pendency of state/ UT governments and its implementing agencies for project sanctioned by ministry of tourism.
- Parity for pan India development in selection of destinations: The final list of
 destination shall be prepared by prioritizing destinations from the states which are not
 covered in the existing list of destinations.

7.4 MeitY INKS MoU WITH MAPMYINDIA TO ENABLE MAP SERVICES IN UMANG APP

Recently, the Ministry of Electronics & Information Technology (MeitY) has signed an MOU with MapmyIndia to **enable map services** in "**UMANG App**".

Highlights

- The citizens will be able to find government facilities nearest to their location, such as mandis, blood banks and much more, at the click of a button.
- The citizens will be able to view the driving distance, get directions and turn by turn
 voice and visual guidance to locations, including traffic and road safety alerts during
 navigation.
- UMANG app has already started to provide map functionality through MapmyIndia in the following services:
 - Mera Ration: Through UMANG, users can identify and navigate to the 'Nearest Fair Price Shops' as shops are visible in the form of pointers on MapmyIndia integrated map.
 - eNAM: Through UMANG, 'Mandi Near Me' service will help users to identify and navigate to the nearby mandis pointed on the map.





- Damini: 'Damini Lightning Alerts' service is to provide lightning alerts to users by giving a visual of nearby areas where lightning has struck in the last few minutes.
- The MoU will help in **increasing the functionality of map** in many more services such as:
 - ESIC: Users can view ESIC centers such as hospitals/dispensaries on map view and navigate to them.
 - Indian Oil: Service is to locate nearby retail and distributors of Gas stations as well as fuel filling stations.
 - o **NHAI:** Users can view the toll plazas and toll rates information while travelling.
 - National Crime Records Bureau (NCRB): It provides information corresponding to nearby police stations on the map.
 - Pradhan Mantri Gram Sadak Yojana (Meri Sadak): It will help users to raise complaints of damaged roads by selecting the road on MapmyIndia platform.

UMANG App?

- It is Unified Mobile Application for New-age Governance (UMANG).
- It is a Government of India single, unified, secure, multi-channel, multi-platform, multi-lingual, multi-service mobile app.
- It is aimed at providing **access to high impact services** of various organizations (Central and State).
- It was launched by the Prime Minister in 2017.
- It brings major government services on a single mobile app, with a larger goal to make the
 government accessible on mobile phones of citizens.
- It is developed by Ministry of Electronics and Information Technology
 (MeitY) and National e-Governance Division (NeGD) to drive Mobile Governance in
 India.

MapmyIndia





- It is a product of an indigenous, company founded and headquartered in New Delhi in 1955.
- It has digitally mapped the entire country.
- It helps users **find relevant places nearby** and see them on detailed building level maps.
- Its APIs enable app and technology developers to **easily integrate India's own**, **indigenous**, **Aatmanirbhar maps** into their apps.

7.5 THE ECONOMICALLY WEAKER SECTIONS RESERVATION BEING IMPLEMENTED IN ANDHRA PRADESH

Recently, the **Andhra Pradesh** government has issued orders for implementation of **10 per cent EWS reservation in all government recruitments** henceforth.

Highlights

- The order is in accordance with **The Constitution (103rd) Amendment Act 2019** that provides for the creation of the special EWS quota to be implemented by the state.
- The state government has simplified the norms stipulated by the Central Government for the implementation of 10 percent reservation to the EWS in employment and education, without any sub-categorisation.
- The people who are not covered under the existing reservations for BCs, SCs,
 STs and whose gross annual family income is below Rs 8 lakh per annum, are eligible for EWS reservation in both employment and educational opportunities.

Reasons of EWS Reservation in Andhra Pradesh

- The AP government feels that there are many poor people in the upper sections of society who are not covered under any scheme and do not receive any benefits.
- The 10 per cent reservation for EWS is to cover such families in the general category.





 The previous government decision has created confusion among the people and litigations against the Kapu quota have deprived others of availing EWS quota.

Implementation of EWS Reservation

- The government has asked all tehsildars to issue OBC certificates to persons eligible under EWS.
- The persons recruited under EWS category will be adjusted against the roster points earmarked for them.
- The orders on the roster points earmarked for 10 per cent reservation to EWS
 category will be issued separately, along with other rules to be framed/amended and
 guidelines to be formulated.
- The persons whose family own or possess either five or more acres of agricultural land, or, residential flat of 1000 sq feet or above, or residential plot of 100 sq yards and above are excluded.

7.6 SEDITION LAW COLONIAL IS IT STILL NEEDED... CONCERNED OVER MISUSE

Recently, the Supreme Court has expressed concern over the "misuse" of the sedition law and no accountability of executive agencies and it sought to know that if this "colonial law" is still needed 75 years after Independence.

Sedition Law in India

- The law was **originally drafted in 1837 by Thomas Macaulay**, the British historian-politician, but was inexplicably omitted when the IPC was enacted in 1860.
- **Section 124A was inserted in 1870** by an amendment introduced by Sir James Stephen when it felt the need for a specific section to deal with the offence.
 - It was one of the many draconian laws enacted to stifle any voices of dissent at that time.





- The term 'sedition' has been defined under Section 124A of the Indian Penal Code.
 - o It is defined as an offence committed when "any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India".
 - o Disaffection includes disloyalty and all feelings of enmity.
 - The comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.

Sedition Law against Freedom Fighters

- The first known instance of the application of the law was the trial of newspaper editor Jogendra Chandra Bose in 1891.
- Bal Gangadhar Tilak was charged with sedition in 1897 for writing an article in his weekly publication called Kesari and was sentenced to 12 months imprisonment.
 - He was tried again in 1908 and was represented by MA Jinnah but his application for bail was rejected and he was sentenced to six years.
- In 1922, **Mahatma Gandhi** was arrested on **charges of sedition in Bombay** for taking part in protests against the colonial government.

7.7 THE SHREYA SINGHAL CASE THAT STRUCK DOWN SECTION 66A OF IT ACT

Recently, the Supreme Court has termed the continued use of **Section 66A of the Information Technology Act, 2000** by law enforcement agencies of various states as "a shocking state of affairs".

Highlights

 The Centre has written to states, asking them not to register cases under the repealed provision and withdraw any such case that may have been filed.





- The Union Ministry of Home Affairs (MHA) has requested States and Union Territories (UTs) to direct all police stations under their jurisdiction not to register cases under the repealed Section 66A of the Information Technology Act, 2000.
- It has also asked the States and UTs to sensitize law enforcement agencies for the compliance of the order issued by the Supreme Court in 2015.
- The MHA has also requested that if any case has been booked in States and UTs under Section 66A of the IT Act, 2000, such cases should be immediately withdrawn.

Section 66A?

- It was introduced by the **UPA government in 2008**.
- The amendments to the **IT Act, 2000 gave the government power to arrest and imprison** an individual for allegedly "offensive and menacing" online posts.
- The Section 66A empowered police to make arrests over what policemen could construe
 as "offensive" or "menacing" or for the purposes of causing annoyance, inconvenience,
 etc.
- It prescribed the **punishment for sending messages through a computer** or any other communication device like a mobile phone or a tablet, and a conviction could fetch a maximum of three years in jail.

Reasons for criticism of Section 66A

- The problem was with the **vagueness about what is "offensive"**.
- The word having a very wide connotation was open to distinctive, varied interpretations.
- It was seen as subjective, and what might have been innocuous for one person, **could lead to a complaint from someone else** and, consequently, an arrest under Section 66A
- In 2015, the apex court struck down the law in the landmark case Shreya Singhal v. Union of India, calling it "open-ended and unconstitutionally vague".

Grounds for challenging Section 66A of IT Act 2000





- The petitioners argued that Section 66A came with extremely wide parameters, which allowed whimsical interpretations by law enforcement agencies.
- It was argued that most of the terms used in the section had not been specifically
 defined under the Act which curtailed freedom of speech and expression guaranteed under
 the Constitution.

Arguments of Supreme Court against Section 66A

- In 2015, a bench ruled in Shreya Singhal v. Union of India declared Section 66A unconstitutional for being violative of Article 19(1)(a) and not saved under Article 19(2).
 - Article 19(1)(a) gives people the right to speech and expression whereas 19(2) accords the state the power to impose "reasonable restrictions" on the exercise of this right.
- The decision was considered a landmark judicial pushback against state encroachment on the freedom of speech and expression.
- It ruled that the Section 66A is cast so widely that virtually any opinion on any subject would be covered by it and if it is to **withstand the test of constitutionality**, the chilling effect on free speech would be total.
- The bench also read down Section 79 defining key rules for the relationship between governments and commercial internet platforms.
 - The Section 79 says that any intermediary shall not be held legally or otherwise liable for any third party information, data, or communication link made available or hosted on its platform.



7.8 SC TERMS 'IMPORTANT' PLEAS SEEKING STRIKING DOWN OF PROVISIONS ON CONJUGAL RIGHTS





Recently, the Supreme Court is expected to begin hearing a fresh challenge to the provision allowing **restitution of conjugal rights** under Hindu personal laws.

Genesis

- Section 9 of the Hindu Marriage Act, 1955, which deals with restitution of conjugal rights, reads:
 - When either the husband or the wife has, without reasonable excuse, withdrawn from the society of the other, the aggrieved party may apply, by petition to the district court, for restitution of conjugal rights; and
 - The court, on being satisfied of the truth of the statements made in such petition and that there is no legal ground why the application should not be granted, may decree restitution of conjugal rights accordingly.

Conjugal rights?

- Conjugal rights are rights created by marriage, i.e. right of the husband or the wife to the society of the other spouse.
- The law recognizes the rights i.e. **both in personal laws dealing with marriage, divorce etc.**, and in criminal law requiring payment of maintenance and alimony to a spouse.
- Section 9 of the Hindu Marriage Act **recognizes one aspect of conjugal rights** i.e. the right to consortium and protects it by allowing a spouse to move court to enforce the right.
- The concept of restitution of conjugal rights is **codified in Hindu personal law** now, but has colonial origins and has genesis in ecclesiastical law.
- In 1970, the **United Kingdom repealed** the law on restitution of conjugal rights.

Case under Section 9 of the Hindu Marriage Act

- If a spouse refuses cohabitation, the other spouse can move the family court seeking a decree for cohabitation.
- If the **order of the court is not complied with**, the court can attach property.





- The decision of the family court can be appealed before a High Court and the Supreme Court.
- When a spouse files for divorce unilaterally, the other spouse files for restitution of conjugal rights if he or she is not in agreement with the divorce.
- The provision is seen to be an intervention through legislation to strike a conciliatory note between sparring spouses.

Law being challenged?

- The law is being challenged now on the main grounds that it is violative of the fundamental right to privacy.
- The petition plead that a court-mandated restitution of conjugal rights amounted to a
 "coercive act" on the part of the state, which violates one's sexual and decisional autonomy,
 and right to privacy and dignity.
 - In 2019, a nine-judge Bench of the Supreme Court recognised the right to privacy as a fundamental right.
- The legal experts have pointed out that the nine-judge Bench's landmark verdict in
 the privacy case set the stage for potential challenges to several laws such as
 criminalization of homosexuality, marital rape, restitution of conjugal rights, the two-finger
 test in rape investigations.
- The law is **ex-facie** (**'on the face if it') gender-neutral** because it allows both wife and husband to seek restitution of conjugal rights, the provision disproportionately affects women.
- It will also be argued whether the state can have such a **compelling interest in protecting the institution of marriage** that it allows a legislation to enforce cohabitation of spouses.

Previous decisions by Supreme Court

• In 1984, the Supreme Court had upheld **Section 9 of the Hindu Marriage Act** in the case of Saroj Rani v Sudarshan Kumar Chadha.





- It held that the provision serves a social purpose as an aid to the prevention of break-up of marriage.
- In 1983, a single-judge bench of the Andhra Pradesh High Court had for the first time struck down the provision in the case of T Sareetha vs T Venkatasubbaiah and declared it null and void.
 - The court also held that in a matter so intimately concerned the wife or the husband the parties are better left alone without state interference.
 - The court had also recognised that compelling "sexual cohabitation" would be
 of "grave consequences for women".
- The Delhi High Court added that it is in the interests of the State that family life should be maintained, and that homes should not be broken up by the dissolution of the marriage of parents.
- The Supreme Court upheld the Delhi High Court view and overruled the Andhra Pradesh High Court verdict.

7.9 SECTION 43D (5) OF THE UNLAWFUL ACTIVITIES PREVENTION ACT (UAPA)

Recently, Stan Swamy had moved the Bombay High Court challenging **Section 43D(5)** of the **Unlawful Activities Prevention Act (UAPA)**.

Section 43D(5) of UAPA

- The UAPA, enacted in 1967, was strengthened by the Congress-led UPA government in 2008 and 2012.
- The test for denying bail under the UAPA is that the court must be satisfied that a
 "prima facie" case exists against the accused.
- The Section 43D(5) reads that no person accused of an offence punishable under
 Chapters IV and VI of this Act shall, if in custody, be released on bail or on his own





bond unless the Public Prosecutor has been given an opportunity of being heard on the application for such release.

• It provided that such accused person shall not be released on bail or on his own bond if the Court, on a perusal of the case diary or the report made under section 173 of the Code is of the opinion that there are reasonable grounds for believing that the accusation against such person is prima facie true.

Reasons of challenging Section 43D(5) of UAPA

- The petitioner termed the section 43D(5) as "illusory".
- The provision makes grant of bail virtually impossible under UAPA since it leaves little room of judicial reasoning.

Grounds on which bail is granted under UAPA

- In Union of India v K A Najeeb, the Supreme Court upheld the grant of bail under UAPA when the accused had undergone incarceration for a significant period even as it recognised that bail under UAPA was an exception.
- The rigours of provisions related to bail will melt down where there is no likelihood of trial being completed within a reasonable time and the period of incarceration already undergone has exceeded a substantial part of the prescribed sentence.
- It would safeguard against the possibility of provisions like Section 43D(5) of UAPA
 being used as the sole metric for denial of bail or for wholesale breach of
 constitutional right to speedy trial.

Law of Bail under UAPA

 Both regular bail and bail by default like CrPC are available under UAPA with some alterations under section 43 D of UAPA.





- The Regular Bail in UAPA can be granted by a competent magistrate under section 437 CrPC and by the high court or district and sessions court under section 439 of CrPC.
- The provisions for default bail is also available under section 167(2)
 CrPC read with section 43D(2) of UAPA, after 30 days of police custody and 90 days of judicial custody, subjected to delay in filing of charge-sheet.
- UAPA does not provide any specific conditions to be satisfied to grant bail.
- The Supreme Court in State through CBI v. Amaramani Tripathy had listed factors to be considered while deciding upon bail applications which include:
 - Enormity of the charge;
 - The nature of the accusation;
 - The severity of the punishment;
 - The nature of the evidence in support of the accusation;
 - The danger of the applicant absconding;
 - The danger of witnesses being tampered with;
 - The protracted nature of the trial; and
 - The health, age, and sex of the person accused

Curious case of Section 43D(5)

It is only applicable to offences punishable under chapter IV and VI of the act i.e.
offences related to terrorist acts and terrorist organizations.





- It has a proviso which basically explains condition when bail shall be denied, i.e. if
 reasonable grounds exist for accusations to be prima-facie true and such decision shall be
 based on chargesheet or case diary.
- The second part of proviso explains the burden over prosecution and the prosecution
 had to prove that reasonable grounds exist for accusations believed to be prima facie
 true.

7.10 PORTALS ON AYUSH SECTOR

Recently, the Union Minister of AYUSH has launched **five important portals** on AYUSH sector.

The Minister launched CTRI portal pertinent to Ayurveda Dataset along with AMAR,
 RMIS, SAHI and e-Medha portals.

Highlights

AMAR Portal

- It is a repository for Ayurveda, Yoga, Unani, Siddha and Sowa- Rigpa Manuscripts and catalogues.
- It is Ayush Manuscripts Advanced Repository Portal.
- It has digitized information on rare and hard to find Manuscripts and catalogues of Ayurveda, Yoga, Unani, Siddha, and Sowa Rigpa in libraries or in individual collections.

RMIS Portal

- It is a research guidance platform.
- It is a collaborative effort of Indian Council of Medical Research (ICMR) and Central Council for Research in Ayurvedic Sciences (CCRAS).





- It is CCRAS- Research Management Information System.
- It will be a one stop solution for Research and Development in Ayurveda based studies.
- It will provide free of cost research guidance by experienced Scientists, Clinicians of Ayurveda.

SHAHI Portal

- It is Showcase of Ayurveda Historical Imprints portal.
- It incorporates authentic resources and will be of immense help in showcasing historical veracity of Ayurveda.
- It showcases inscriptions, Archeo-botanical Information, Sculptures, Philological sources and advanced Archeo Genetic studies.
- It will be of tremendous use in understanding of Indian Knowledge system with a
 focus on indigenous health care practices.

E-Medha Portal

- It is **electronic Medical Heritage Accession** portal.
- It will provide **online access to more than 12 thousand books** related to Indian Medical Heritage through NIC's e-granthalaya platform.

7.11 NIPUN BHARAT MISSION

Recently, the Ministry of Education has announced that it will launch **NIPUN Bharat Mission**.

NIPUN Bharat





- It is a National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat).
- It marks an important step undertaken by the Department of School Education and Literacy, among a series of measures taken for implementation of the National Education Policy 2020.
- Its vision is to create an enabling environment to ensure universal acquisition of foundational literacy and numeracy.
- Its primary focus will be on that every child achieves the desired learning competencies in reading, writing and numeracy by the end of Grade 3, by 2026-27.
- It will be implemented by the **Department of School Education and Literacy**.
 - Under the mission, a five-tier implementation mechanism will be set up at the National- State- District- Block- School level in all States and UTs, under the aegis of the centrally sponsored scheme of Samagra Shiksha.
- It will help in improving the **overall education and literacy standards** in the country.

Samagra Shiksha Abhiyaan

- It was announced in the **Union Budget of 2018-19.**
 - It proposed to **treat school education holistically** without segmentation from pre-nursery to Class 12.
- It is an overarching programme for the school education sector extending from preschool to class 12.
- It has been prepared with the **broader goal of improving school effectiveness** measured in terms of equal opportunities for schooling and equitable learning outcomes.





- It subsumes the three erstwhile Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE).
- It aims to harmonise the implementation mechanisms and transaction costs at all levels, particularly in using state, district and sub-district level systems and resources.
- It aims to achieve **Sustainable Development Goals** under:
 - The SDG-4.1 states that "By 2030, ensure that all boys and girls complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes.
 - The SDG 4.5 states that "By 2030, eliminate gender disparities in education and ensure equal access to all levels of Education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations".

7.12 PROJECT BOLD TO BOOST TRIBALS

Recently, the Ministry of Micro, Small & Medium Enterprises (MSMEs) has announced a **Project BOLD** in order to boost tribals' lives and livelihoods.

Project BOLD

- It is a unique initiative of **Khadi and Village Industries Commission (KVIC).**
- It is named as "Bamboo Oasis on Lands in Drought" (BOLD).
- It is the **first of its kind exercise in India** which was launched from the tribal village Nichla Mandwa in Udaipur, Rajasthan.
- Under the project, **5000 saplings of special bamboo species** i.e. Bambusa Tulda and Bambusa Polymorpha have been planted over 16 acres approx. of vacant arid Gram Panchayat land.





Significance of Project BOLD

- It seeks to create **bamboo-based green patches** in arid and semi-arid land zones.
- It is aligned with Prime Minister Shri Narendra Modi's call for reducing land degradation and preventing desertification in the country.
- It has been launched as part of KVIC's "Khadi Bamboo Festival" to celebrate 75 years of independence "Azadi ka Amrit Mahotsav".
- The green patches of bamboo in Gujarat, Leh-Ladakh region and Rajasthan will help in **reducing the land degradation percentage** of the country.
- It will benefit a large number of women and unemployed youths in the region by connecting them to skill development programs.
- It will create additional income for the local tribal population while it will also support the local bamboo-based industries and thus boost the rural economy.

KVIC

- It is a **statutory body** established by an Act of Parliament in 1956.
- It is under the administrative control of **Ministry of Micro, Small & Medium** Enterprises (MSMEs).
- The **broad objectives** that the KVIC has set before it are:
 - The **social objective** of providing employment;
 - The **economic objective** of producing saleable articles; and
 - The **wider objective** of creating self-reliance amongst the poor and building up of a strong rural community spirit
- It is charged with the **planning, promotion, organisation and implementation** of programs for the development of Khadi and other village industries in the rural areas.





- Its **functions** also comprise:
 - Building up of a reserve of raw materials and implements for supply to producers;
 - Creation of common service facilities for processing of raw materials as semi-finished goods; and
 - Provisions of facilities for marketing of KVI products.

7.13 PLATFORMS LAUNCHED FOR DEVELOPMENT OF TECHNOLOGIES

Recently, the Minister of Heavy Industries and Public Enterprises has inaugurated **six Technology Innovation Platforms** which will focus on development of technologies for the **globally competitive manufacturing in India.**

Key Highlights

- The platforms have been developed by IIT Madras, Central Manufacturing
 Technology Institute (CMTI), International Centre for Automotive Technology
 (iCAT), Automotive Research Association of India (ARAI), BHEL and HMT in
 association with IISc Bangalore.
- It will facilitate the **development of the key 'mother' manufacturing technologies'** indigenously through **'Grand Challenges'** on the Platforms to help achieve the vision of an Aatmanirbhar Bharat
- It will help in bringing all **India's technical resources and the concerned Industry** on to one platform to kick start and facilitate identification of technology problems.
- It will facilitate industry, start-ups, domain experts/professionals, R&D institutions and academia (colleges & universities), to provide technology solutions, suggestions and expert opinions.





 It will facilitate exchange of knowledge with respect to research & development and other technological aspects.

ASPIRE

- It is an Automotive Solutions Portal for Industry, Research & Education.
- Its primary objective is to enhance the technological capability of Indian automotive sector through exchange of knowledge & expertise.
- It aims to facilitate the growth of automobile sector and overall socio-economic progress of the country.

SanRachna

- It is an indigenous, multi-domain collaborative platform developed with the aim of
 enabling our brightest minds to unlock the potential of new technologies and innovations
 to shape the future.
- It is developed under the guidance of Department of Heavy Industry (DHI).
- It aims to be a **one-stop solution to bring together** and enable Start-ups, Entrepreneurs, Industries, Institutes and Researchers.

TechNovuus ARAI

- It is an indigenous, multi-domain collaborative platform developed with the aim
 of enabling our brightest minds to unlock the potential of new technologies and
 innovations to shape the future of Mobility.
- It is developed under the guidance of Department of Heavy Industry (DHI).
- ARAI is the leading automotive R&D organization of the country set up by the Automotive Industry with the Government of India.





 ARAI is an autonomous body affiliated to the Ministry of Heavy Industries and Public Enterprises.

Technology and Innovation Platforms (TIPs)

- It aims to cater to related areas of manufacturing by **providing a common coordinating platform** for all the allied stakeholders.
- The HMT Machine Tools Limited (HMT) is in the process of creating the Technology
 & Innovation Platform for the Machine Tools Sector (TIP-MT).
- The core objective of TIP-MT is to promote collective and coordinated efforts to enhance the technological capabilities of the Machine Tool Sector.
- Its primary objective is to provide impetus to the increase in competitiveness of the
 Machine Tools Sector and enable accelerated growth of the Manufacturing Sector.

KITE Platform

- The Knowledge Integration for Technology Enrichment (KITE) is a Technology Eco-Platform created by AMTDC-IIT Madras.
- It is aimed at enrichment of **Manufacturing Innovation**, **Product Development and Skill Development**.

Drishti Platform

- It is **Design**, **Research and Innovation** by Harvesting Science and Technology for Industries.
- It is an online platform developed by CMTI that provides a synergy between industries and young innovators to solve complex challenges.

7.14 THE FEATURES OF THE PRADHAN MANTRI GRAM SADAK YOJANA (PMGSY)





Recently, the Minister of State for Rural Development has informed that the **allocation of funds to the States for implementation of PMGSY** depends on works in hand, pace of expenditure and unspent balance available with the State.

• The unspent balance with the State as on 1st April, 2021 was Rs. 258.26 crore, out of which the State has spent Rs.227.22 crore as on 15th July, 2021, leaving a balance of Rs. 31.04 crore with the State.

Pradhan Mantri Gram Sadak Yojana (PMGSY)



- It is a Central government scheme.
- It was launched as a **one-time special intervention to provide rural connectivity**, by way of a single all- weather road, to the eligible unconnected habitations of designated population size.





- It is 500+ in plain areas and 250+ in North-Eastern States, Himalayan States and Himalayan Union Territories as per 2001 census.
- The **PMGSY- II was launched in the year 2013**, with a target to upgrade 50,000 Kms of the existing rural road network to improve its overall efficiency.
- The PMGSY shall **cover only the rural roads** and the **urban roads are excluded** from the purview of this programme.

Features of PMGSY

- The **main features** of PMGSY are:
 - Decentralized and evidence based planning;
 - Standards and specifications as per Indian Road Congress (IRC) and Rural Roads Manual;
 - Dedicated implementation mechanism at central, state and district level;
 - Scrutiny of Detailed Project Reports (DPRs) at multiple levels;
 - Strong IT backbone for monitoring and implementation of the programme;
 - Three-tier quality management system;
 - Unbroken flow of funds;
 - Inbuilt mechanism for consultation with public representatives at planning; and
 - selection of roads and monitoring stages





- It aims to provide connectivity to unconnected Habitations as part of a poverty reduction strategy.
- The scheme provides all-weather rural road connectivity to all habitations with a
 population of 250 and above in 11 left-wing extremism-affected districts, known as
 'Integrated Action Plan (IAP) districts.

Eligibility and Funding for PMGSY

- All States and Union Territories would be eligible to participate under PMGSY-III.
- The **States/UTs would be able to join only after sanction of 100% works** of PMGSY-I and PMGSY-II, and award of 90% of length.
- The roads in the **initial five year guarantee period** (Defect Liability Period) and post five year guarantee period will be maintained by the States.

7.15 SC QUASHES SOME PROVISIONS OF 97TH AMENDMENT DEALING WITH CO-OPERATIVE SOCIETIES

Recently, the Supreme Court had struck down certain provisions of the **Constitution (97th Amendment) Act, 2011.**

Highlights

- The ruling came from a bench of Justices R F Nariman, K M Joseph and B R Gavai which upheld a 2013 Gujarat High Court verdict that struck down parts of the amendment.
- Justices Nariman and Gavai **struck down only that part of Part IXB** which dealt with cooperative societies confined to states.
- Justice Joseph in a separate judgment struck down the entire 97th constitutional amendment.





97th Constitutional Amendment Act?

- It was **passed by parliament in December 2011** and had come into effect from February 15, 2012.
- It introduced **clauses dealing with the working of cooperative societies** working within a state, saying the subject matter fell in the state list.
- The change in the constitution has **amended Article 19(1)(c)** to give protection to the cooperatives and **inserted Article 43 B and Part IX B**, relating to them.
 - Article 19(1)(c) guarantees freedom to form association or unions or cooperative societies subject to certain restrictions.
 - Article 43 B says that states shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies.
 - The Part IX B of the constitution inserted by the 97th amendment deals with incorporation, terms of members of the board and its office bearers and effective management of cooperative societies.
- It belongs wholly and exclusively to the State legislatures to legislate upon and any
 change would require the ratification by at least one-half of the state legislatures as
 per Article 368(2) of the Constitution.

Argument in favour of 97th Constitutional Amendment

- The Centre has contended that the provision does not denude states of their power to enact laws with regard to cooperatives.
- The Attorney General stated that the 97th Constitution amendment is **not** a **direct or substantial attack on states' powers** to enact a law with regard to cooperatives.





• The Centre has stated that the amendment was enacted to **bring uniformity in the management of cooperative societies** and it did not take away the powers of states.

Reasons for quashing provisions of 97th Constitutional Amendment

- The apex court's verdict came on the Centre's plea challenging the Gujarat high court's 2013 decision striking down certain provisions of the 97th constitutional amendment.
- The top court also examined the question of whether the provision denuded states of their exclusive power to enact laws to deal with the management of cooperative societies.
- The top court had said if the Centre wanted to achieve uniformity then the only way
 available was to take the recourse under Article 252 of the Constitution.
 - It deals with the **power of Parliament to legislate for two or more** states by consent.
- It said that in effect what the government had done was that the power of States to enact laws with respect to cooperative society has been made **no longer exclusive**.
- The high court had held that certain provisions of the amendment pertaining to cooperative societies **violated the basic structure of federalism**.
- The PIL petitioner contended that as per the provisions of **Article 368 of the**Constitution:
 - If Parliament intends to amend or delete any of the lists in the seventh schedule, such Amendment shall require to be ratified by the legislature of not less than one-half of the states by resolution to the effect passed by those legislatures before the bill making provisions for such amendment is presented to the President for Assent.

Article 368 of the Indian Constitution?





- Article 368 provides the power of Parliament to amend the Constitution and procedure therefore:
- Article 368(1): Notwithstanding anything in this Constitution, Parliament may in exercise of its constituent power amend by way of addition, variation or repeal any provision of this Constitution in accordance with the procedure laid down in this article
- Article 368(2): An amendment of this Constitution may be initiated only by the introduction of a Bill for the purpose in either House of Parliament, and when the Bill is passed in each House by a majority of the total membership of that House present and voting, it shall be presented to the President who shall give his assent to the Bill and thereupon the Constitution shall stand amended in accordance with the terms of the Bill.
 - It provided that if such amendment seeks to make any change in:
 - Article 54, Article 55, Article 73, Article 162 or Article 241, or
 - Chapter IV of Part V, Chapter V of Part VI, or Chapter I of Part XI, or
 - Any of the Lists in the Seventh Schedule, or
 - The representation of States in Parliament, or
 - The provisions of this article, the amendment shall also require to be ratified by the Legislature of not less than one half of the States by resolution to that effect passed by those Legislatures before the Bill making provision for such amendment is presented to the President for assent
- Article 368(3): Nothing in Article 13 shall apply to any amendment made under this article
- **Article 368(4):** No amendment of this Constitution (including the provisions of Part III) made or purporting to have been made under this article whether before or after the





commencement of Section 55 of the Constitution (Forty second Amendment) Act, 1976 shall be called in question in any court on any ground

Article 368(5): For the removal of doubts, it is hereby declared that there shall be no
limitation whatever on the constituent power of Parliament to amend by way of addition,
variation or repeal the provisions of this Constitution under this article PART XXI
TEMPORARY, TRANSITIONAL AND SPECIAL PROVISIONS

7.16 WATER LEVEL AND QUALITY OF RIVERS

According to the Ministry of Consumer Affairs, Food and Public Distribution, Mumbai residents need not buy reverse osmosis (RO) water purifiers as samples of tap water collected from the Mumbai are compliant with the Indian standards for drinking water.

However, other metro cities of Delhi, Kolkata and Chennai failed in almost 10 out of 11 quality parameters tested by the Bureau of Indian Standards (BIS). Similar is the condition in the majority of other state capitals.

Nature of Water Crisis

- According to NITI Aayog's Composite Water Management Index 2018, 21 major cities (Delhi, Bengaluru, Chennai, Hyderabad and others) are racing to reach zero groundwater levels by 2020, affecting access for 100 million people.
- India ranks 120 among 122 countries on the Water Quality Index released by WaterAid.
 - The **national capital** region of India is facing a double **whammy**, not only it harbours poor standards of air (air emergency) but poor water quality also.

Input:





- According to the data released by the World Resources Institute, India is ranked 13th among the 17 most water-stressed countries of the world.
- According to the Ministry of Urban Development, 80% of India's surface water is polluted.
- This signifies India is going through Water emergency.

Causes of Poor Drinking Water Quality

- In the name of water purification, most of the times water is chlorinated.
- Chlorination only kills bacteria & other microorganisms but dissolved salts, alkalinity, toxic metals in water can't be eliminated by chlorination.
- The pipes which carry the water, are old and leaking. This leakages in pipes lead to contamination of water.
- Moreover, the water supply line & sewerage line running side by side.
- In metropolitan cities, the demand for water is higher than the supply. Therefore, this deficit in the water supply is compensated by the mixing of surface water & groundwater.
- However, groundwater is severely contaminated by carcinogenic pollutants like Arsenic.
- Water is a state subject. This lead to the problem of coordination between Union, State
 and Local government.
- Rapid urbanization has led the unequal distribution of water, contamination/ depletion of local water bodies due to pollution.
- Sometimes the places from where water samples are collected, may not reflect the true state of water quality.
- Effects of Poor Drinking Water





 Harmful health impacts: Nearly 70% of the diseases in India are waterborne. Therefore, poor water quality is a great health hazard.

Economic cost: Poor drinking water will lead to a reduction in tourist inflow.

Domino effect: Result of poor drinking water is the prime reason for the sale of plastic bottled drinking water. However, this bottled water gives rise to plastic pollution.

Wasting resources: RO is expensive and for 1 litre of RO or bottled water, many litres of water wasted.

Also, the RO water is deprived of essential minerals and salts.

Social effect: With the given condition of the water crisis, it is less likely to fulfil the target of providing everyone with safe drinking water (Sustainable Development Goal number 6).

Road Ahead:

- Data based support system: Water quality should be tested frequently and the findings should be made public.
- This will increase involvement, sensitization & awareness of citizens, service providers and the government.
- Mandatory compliance: Compliance to Bureau of Indian Standards for water quality should be made mandatory for local bodies.
- This can make municipalities and other local bodies accountable.
- Pricing for water: Water can be priced for well-off sections of society so that proper maintenance cost should be recovered.
- Better management: Long-distance pipelines of water should be discouraged and water treatment should be made more localized.





- Also, efforts should be made to find out the sites of continuation in the supply line.
- Technological solution: Up-gradation of the water treatment plant to remove toxic inorganic pollutants and dissolved solids.
- Rainwater harvesting: The reason why Mumbai's water is relatively safer because it is sourced from rainwater (the purest source of water).
- Therefore, rainwater harvesting should be encouraged to the maximum extent possible.

Next step for Jal Jeevan mission: The government's effort to provide piped water to all rural households by 2024 under the Jal Jeevan mission, is a step in the right direction. However, providing quality piped water will be a big challenge.

7.17 PARLIAMENT PASSES JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) AMENDMENT BILL 2021

Recently, the **Juvenile Justice (Care and Protection of Children) Amendment Bill, 2021** which seeks to amend the Juvenile Justice Act, 2015, was passed in Rajya Sabha.

Juvenile Justice (Care and Protection of Children) Act, 2015?

- The Act was **introduced and passed in Parliament in 2015** to replace the Juvenile Delinquency Law and the Juvenile Justice (Care and Protection of Children Act) 2000.
- The main provision of the new Act is allowing the trial of juveniles in conflict with law in the age group of 16-18 years as adults, in cases where the crimes were to be determined.
- The nature of the crime, and whether the juvenile should be tried as a minor or a child, was to be determined by a Juvenile Justice Board.
- It received impetus after the 2012 Delhi gangrape in which one of the accused was
 just short of 18 years, and was therefore tried as a juvenile.







- The second major provision is with regards to adoption, bringing a more universally acceptable adoption law instead of the Hindu Adoptions and Maintenance Act (1956) and Guardians of the Ward Act (1890) which was for Muslims, although the Act did not replace these laws.
- The Act streamlined adoption procedures for orphans, abandoned and surrendered children and the existing Central Adoption Resource Authority (CARA) has been given the status of a statutory body to enable it to perform its function more effectively.

Need for Juvenile Justice (Care and Protection Amendment) Bill, 2021

 The changes give increased powers and responsibilities to District Magistrates, were being made to not only ensure speedy trials.





- It **increased protection of children at the district level,** with checks and balances in place, but to also speed up the adoption processes in the country.
- The District Magistrates, including Additional District Magistrates, can now
 issue adoption orders under Section 61 of the JJ Act, in order to ensure speedy disposal
 of cases and enhance accountability.
- The adoption processes were currently under the purview of courts, and with an overwhelming backlog, each adoption case could take years to be passed.

What powers will District Magistrates now have under the new Act?

- The District Magistrates have been further empowered under the Act to ensure its smooth implementation, as well as garner synergized efforts in favour of children in distress conditions.
- It means that DMs and ADMs will monitor the functioning of various agencies
 under the JJ Act in every district—includes the Child Welfare Committees, the Juvenile
 Justice Boards, the District Child Protection Units and the Special Juvenile Protection
 Units.

Monitoring of Child Welfare Committees

- The DM will also carry out background checks of CWC members, who are usually social welfare activists, including educational qualifications, as there is no such provision currently.
- The DMs are also to check possible criminal backgrounds to ensure that no cases of child abuse or child sexual abuse are found against any member before they are appointed.
- The CWCs are also to **report regularly to the DMs on their activities** in the districts.

Changes made in offences by juveniles?





- Under the 2015 Act, offences committed by juveniles are categorised as heinous offences, serious offences, and petty offences. Serious offences include offences with three to seven years of imprisonment.
- According to the Juvenile Justice Act 2015, juveniles charged with heinous crimes
 and who would be between the ages of 16-18 years would be tried as adults and
 processed through the adult justice system.
- The Bill adds that serious offences will also include offences for which maximum
 punishment is imprisonment of more than seven years, and minimum punishment is
 not prescribed or is less than seven years.
- The heinous crimes with a minimum imprisonment of seven years pertain mostly to sexual offences and violent sexual crimes.
- The juveniles between the ages of 16-18 years could also be tried as adults for a crime like the possession and sale of an illegal substance.
- The Act provides that **offences against children that are punishable with imprisonment of more than seven years**, will be tried in the Children's Court while offenses with punishments of less than seven years imprisonment will be tried by a Judicial Magistrate.

8.1 MADURAI MALLI, BUTTON ROSE, LILY, CHAMANTHI EXPORTED TO US, DUBAI

Recently, the consignments of Geographical Indications (GI) certified Madurai Malli and other traditional flowers were exported to USA and Dubai from Tamil Nadu.

Madurai Malli





- It is a jasmine flower which is known for its powerful, mysteriously attractive and seductive fragrance.
- ❖ It is called as **Madurai Malli** because of its place of origin namely Madurai which is a province of Tamil Nadu.
- ❖ It is a very **old traditional flower** and has a **botanical name** of **Jasminium**.
- ❖ The Jasmine City or Madurai is also known as **MalligaiManagar**.
- ❖ The ideal season for growth of Madurai Malli is **warm summer** and **bright sunny** days.
- ❖ The soil requirement for Madurai Malli varies from sandy **loamy** soil to even **clayey** soil.
- ❖ It was granted the status of Geographical Indications (GI) under GI Act 1999 in 2013.

GEOGRAPHICAL INDICATION (GI) STATUS

- ❖ It is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- A sign must identify a product as originating in a given place in order to function as a GI.
- The **TRIPS** prescribes minimum standards of protection of GIs and additional protection for wines and spirits.
- India has taken legislative measures by enacting the Geographical Indications of Goods (Registration and Protection) Act, 1999.





- ❖ It defines Geographical Indications as an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory.
- ❖ An application for the registration of a GI is to be made to the Registrar of Geographical Indications in the form prescribed under the Gi Act, 1999.
- ❖ A Geographical Indication is **registered for a period of 10years** and the registration may be renewed from time to time for a period of 10 years at a time.

8.2 IN A FIRST, YAKS INSURED AGAINST ACCIDENTS, NATURAL DISASTERS

Recently, the National Research Centre on Yak (NRCY) at Dirang in Arunachal Pradesh has tied up with the National Insurance Company Ltd. for insuring Himalayan Yak.

Highlights

- The high altitude yak, feeling the **climate change heat across the Himalayan belt**, will now be insured.
- The countrywide population trend shows that yak population has been decreasing at an alarming rate.
- The climate change and inexplicable changes in the weather pattern have been reported from the yak rearing areas throughout the country.
- The insurance policy would **shield the yak owners against the risks** posed by weather calamities, diseases, in-transit mishaps, surgical operations and strikes or riots.
- Under the insurance policy, the owners would have to get their yaks ear-tagged and provide a proper description in order to get their animals insured.

Himalayan Yak





- It is a high-altitude bovine cousin of the cow grazes across the grasslands of the Tibetan Plateau.
- It is a **long-haired bovine** found throughout the Himalayan region of India.
- It is found throughout the **Himalayan region of the Indian subcontinent, the Tibetan Plateau, Northern Myanmar, Yunnan, Sichuan** and as far north as **Mongolia and Siberia.**
- It is a "flagship species" and indicates the health of the ecosystem within which it lives.
- It is a **high-altitude animal**, usually found 2,000-5,000 metres above sea level.
- It is superbly **adapted to the climate of the area** in which it lives, which includes conditions of "cold winter, low oxygen content, high solar radiation, and cyclical nutrition with short growing seasons.
- It is listed as **'Vulnerable'** under the IUCN Red List of Threatened Species.

8.3 HUMAN-WILDLIFE CONFLICT AMONG GREATEST THREATS TO ANIMAL SPECIES: WWF AND UNEP REPORT

Recently, the World Wide Fund for Nature (WWF) and United Nations Environment Programme (UNEP) have released a report titled 'A Future for All – A need for Human-Wildlife Coexistence'.

Highlights

- The report has found that **35 per cent of India's tiger ranges** currently lie outside protected areas.
- It highlighted that many species depend on human-dominated spaces for their survival,
 and shared landscapes with most of the protected areas disconnected from each other.
- In India, over 500 elephants were killed between 2014 and 2015 and 2018 and 2019, most related to human-elephant conflict.
- The report has examined increasing human-wildlife conflict, and has found that marine and terrestrial protected areas only cover 9.67 per cent globally.
- It highlighted that **40 per cent of the African lion range** and **70 per cent of the African** and Asian elephant ranges fall outside protected areas.





 The conflict between people and animals is one of the main threats to the long-term survival of some of the world's most emblematic species.

Human-Wildlife Conflict

- It results from a variety of ecological and anthropogenic drivers that exert pressures on landscapes where humans and wildlife share space.
- ✓ The ecological drivers include seasonal changes, natural calamities, and animals' life cycles,
 as well as the movement patterns of animals.
- ✓The anthropogenic drivers, such as **habitat loss**, **changes in land use**, **livestock management**, **expansion of agricultural practices**, **climate change**, **resource extraction**, **infrastructure development**, and **urbanisation**, increase the potential for HWC.
- An increase in the area of land and sea that is shared by people and wildlife is usually
 caused by diminishing areas available for wildlife to exist away from human disturbance.

Global Impact of Human Wildlife Conflict (HWC)

- **Impact on wildlife and ecosystems:** The HWC threatens the survival of various terrestrial and marine species.
- **Impact on local communities:** The negative impact shape people's risk perception, while cultural and social norms influence people's tolerance of wildlife.
- **Impact on social dynamics:** it can pit people against each other when diverse societal needs and responses are inadequately addressed.
- **Impact on sustainable development:** The HWC is as relevant for sustainable development as it is for wildlife conservation.

Dealing human-wildlife conflict

• International Community: It is necessary to include human-wildlife coexistence as an explicit target of the Convention on Biological Diversity's (CBD) process aimed at achieving the 2050 vision of 'living in harmony with nature'.





- National and regional governmental authorities: They should incorporate coexistence
 considerations into the design and implementation of all relevant policies and programmes and
 provide financial means for their implementation.
- ✓They should develop transparent and inclusive local and regional institutions to manage land use and HWC based on evidence and through a participatory process with affected parties.
- Private Sector: They should lead the development of industry-wide innovations to mainstream all aspects of safe working conditions for staff working in places that are vulnerable to HWC.
- **Civil Society:** They should provide organisational support and technical capacity to communities, governments, donors, and businesses so they can mainstream coexistence into their planning and management.
- Researchers and research institutions: They should strengthen inter- and transdisciplinary research, including close integration of social science, on HWC and coexistence.

8.4 GI CERTIFIED FAZIL MANGO VARIETY FROM WEST BENGAL EXPORTED TO BAHRAIN: COMMERCE MINISTRY

Recently, a consignment of **Geographical Identification (GI) certified Fazil mango** was exported to Bahrain.

• The **consignment of Fazil mango** was exported by APEDA registered DM enterprises, Kolkata and imported by Al Jazira group, Bahrain.

Fazil Mango

- It is **special among all the mango varieties** regarding its size and weight.
- It is commonly grown in Malda district of West Bengal.
- It is **large in size** and weighs up to 700-1500 grams.
- The amount of fiber in mango is very less and that too little is found near the peel.
- It gets its name from Fazli Babu who is associated with Fazal Bibi of Arapur village.





 In Bengal, the production of Fazli mango is more in the areas along the banks of Mahananda and Kalindi rivers.

Geographical Indication (GI) Status

- It is a **sign used on products** that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- A sign must identify a product as **originating in a given place** in order to function as a GI.
- The TRIPS prescribes minimum standards of protection of GIs and additional protection for wines and spirits.
- India has taken legislative measures by enacting the Geographical Indications of Goods (Registration and Protection) Act, 1999.
 - o It defines Geographical Indications as an indication which identifies such **goods as** agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of a country, or a region or locality in that territory.
- An application for the registration of a GI is to be made to the Registrar of Geographical Indications in the form prescribed under the Gi Act, 1999.
- A Geographical Indication is **registered for a period of 10 years** and the registration may be renewed from time to time for a period of 10 years at a time.

8.5 RAMGARH VISHDHARI TO BE THE FOURTH TIGER RESERVE IN RAJASTHAN

Recently, the Rajasthan government is hoping to develop a **tiger corridor connecting three tiger reserves** passing through districts including Sawai Madhopur, Kota and Bundi.

- The three tiger reserves are Ranthambore National Park, Ramgarh Vishdhari
 Sanctuary and Mukundra Hills Tiger Reserve.
- Tigers have always frequented the area demarked for the Ramgarh Vishdhari tiger sanctuary and even now, tigers regularly pass through this area from the direction of Ranthambore.





- It is adjoining the **buffer area of the Ranthambore Tiger Reserve**.
- The Ramgarh Vishdhari tiger sanctuary in Bundi district will connect the Ranthambore
 Tiger Reserve in Sawai Madhopur district and with the Mukundra Hills Tiger
 Reserve in Kota district.
- The tiger corridor will be a functional corridor which will help in dealing with the issue of overpopulation of tigers which Ranthambore is facing currently.



Ranthambore National Park

- It is located about 13.5 kilometers from the city of **Sawai Madhopur in Rajasthan.**
- It is located at the junction of the Aravali and Vindhya hill ranges.
- It was established initially as Sawai Madhopur Game Sanctuary in 1955 by the Government of India.
- In 1973, it was declared as one of the **Project Tiger reserves** in India.
- It was in 1980 that **Ranthambore was declared a national park**, while the forests located beside it were named Sawai Man Singh Sanctuary & Keladevi Sanctuary.





About Mukundra Tiger Reserve

- It is the third tiger reserve of Rajasthan which is also known as Darrah wildlife sanctuary in the past.
- It is located in the **southern eastern part of Kota town** of Rajasthan.
- It is located on the **eastern bank of Chambal River** and its tributaries touch this area.
- The Darrah wildlife sanctuary was declared Mukundra Hills National Park in 2004.
- It consists of three wildlife sanctuaries namely Darrah wildlife sanctuary, Chambal wildlife sanctuary and Jaswant Sagar wildlife sanctuary.
- It got the approval of National Tiger Conservation authority NTCA in 2013 and then the Rajasthan gets its third tiger reserve in the form of the Mukundra Hills Tiger Reserve.

Sariska Tiger Reserve

- It is well **nestled in the Aravali Hills** covering 800 sq km area divided into the grasslands, dry deciduous forests, sheer cliffs and rocky landscape.
- Nearly 90% of the area in the sanctuary is covered with dhok trees accommodating various wildlife species.
- It is home to **India's largest population** of peafowl, and harbours quail, sand grouse, golden-backed woodpeckers and crested serpent eagles, among other species.
- It was declared a sanctuary in 1955 and attained the status of a National Park in 1979.
- It is home to numerous carnivores including **Leopard**, **Wild Dog**, **Jungle Cat**, **Hyena**, **Jackal**, **and Tiger**.





8.6 MAHARASHTRA: BLACK LEOPARD SIGHTED IN NAVEGAON NAGZIRA RESERVE

Recently, a camera trap installed at **Navegaon Nagzira Tiger Reserve** in Bhandara district has captured the image of a black panther.

Black Panther

- Melanistic leopards are commonly called black panthers or black leopards.
- The black color variants of cats like leopards, jaguars and ocelots are known by experts as melanism.
 - Melanism is a genetic condition in which an animal overproduces melanin, the dark colour pigment in skin or fur.
- The Black coat coloration is attributed to the expression of recessive alleles in leopards and dominant alleles in jaguars
- They are found in the forests of the Western Ghats and north-east India and are black in colour due to the presence of excess melanin in their bodies.
- The colour of their fur is a mixture of **blue**, **black**, **grey and purple**.
- It is listed as **'Vulnerable'** under the IUCN Red List of Threatened Species.
- It is protected in **Schedule I** of the Indian Wildlife (Protection) Act, 1972.

Navegaon Nagzira Tiger Reserve

- It was notified as 46th tiger reserve of India in 2013 and the 5th tiger reserve of Maharashtra.
- It is situated in Gondia and Bhandara districts of Maharashtra.





- It is comprised of notified area of Nawegaon National Park, Nawegaon Wildlife Sanctuary, Nagzira Wildlife Sanctuary, New Nagzira Wildlife Sanctuary and Koka Wildlife Sanctuary.
- It has connectivity with major tiger reserves in central India like Kanha and Pench Tiger Reserve in Madhya Pradesh and Tadoba-Andhari Tiger Reserve in Maharashtra and Indravati Tiger Reserve in Chhattisgarh.
- The major forest type found in NNTR is **Southern Tropical Dry Deciduous Forest**.

8.7 TAAL VOLCANO

Recently, the **Philippine seismological agency** has called for the evacuation of thousands of people near **Taal Volcano**.

Taal Volcano

- It is located on south of **Manila in Philippines**.
- It is in a caldera system located in southern **Luzon Island**.
- It sits in a picturesque lake, has been belching sulphur dioxide and creating a thick
 haze over the capital and several surrounding provinces.
- It is one of the most active volcanoes in a nation hit periodically by **eruptions and earthquakes** due to its location on the **Pacific "Ring of Fire"**.
- It is formed by the subduction of the Eurasian Plate underneath the Philippine Mobile
 Belt.

8.8 GUINDY NATIONAL PARK

The **Guindy National Park** provides a number of ecosystem services to the people of one of India's biggest metropolises.





Guindy National Park

- It is a **tiny protected area** measuring just 270.57 hectares (ha) located in the heart of **Chennai's metropolitan area**.
- It serves as the green lungs to a great **metropolitan city in Tamil Nadu**.
- It is India's eighth-smallest national park and one of the very few national parks located inside a city.
- It gained **statutory recognition** as a medium zoo from the Central Zoo Authority (CZA) in 1995.
- The area where the national park is located was once **spread across five sq km**.
- Guindy National Park was originally a game reserve and a garden space was carved out of the Guindy forest and the Guindy Lodge was built by William Langhome (1672-1678).
- The residence of the governor helped to develop the area of St Thomas Mount as a salubrious place for rest and recreation.
- The rest of the **forest area was owned by a British citizen** known as Gilbert Rodericks.
- In 1978, this small area, popularly known as **Guindy Deer Park**, was declared as a national park and the park then started playing a major role in the ecological environment of Madras.

Flora and Fauna in Guindy National Park

- It is one of the last homes of a **relict vegetation**.
- It consists of **tropical dry evergreen forest type** of the Coromandel Coast.
- The ecosystem consists of the rare tropical dry evergreen scrub and thorn forests that receive about 1,200 millimetres rainfall annually.





- A large portion of the area is under **mixed dry deciduous scrub jungle**.
- The entire vegetation looks dry during summers as leaves fall off in deciduous vegetation.
- The near threatened blackbuck, considered the flagship species of the park, was introduced in 1924 by Lord Willingdon.
- Toddy cat, civet cat, jungle cat, pangolin, hedgehog, shrew and black-naped hare are found mostly during the night.
- The floral biodiversity is mainly responsible for the bird biodiversity as there are
 dense forests, open scrub, grasslands and water bodies that cater to the needs of different
 bird species.

8.9 LOWERING EMISSIONS BY ACCELERATING FOREST FINANCE (LEAF) COALITION

Recently, the **Lowering Emissions by Accelerating Forest Finance (LEAF) Coalition** has come up with a \$1 billion fund plan that shall be offered to countries committed to arrest the decline of their tropical forests by 2030.

LEAF Coalition

- It is an ambitious new public-private initiative designed to accelerate climate action
 by providing results-based finance to countries committed to protecting their tropical
 forests.
- It is an initiative with initial participation from the governments of Norway, the United Kingdom, the United States.
- It offers the financial assurance needed for countries to start prioritizing policies and investments that reduce deforestation and protect their tropical forests.

Objectives of LEAF Coalition





- It is a step towards concretising the aims and objectives of the Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism.
- It aims to **mobilize at least \$1 billion in financing** to the benefit of billions of people depending on them, and to support sustainable development.
- It provides a model for aggregating support from governments and companies for high-quality, verified Emissions Reductions.
- Its objective is to raise global climate ambition and contribute to halting and reversing tropical deforestation by 2030.

REDD+ Mechanism

- It is a mechanism developed by Parties to the United Nations Framework Convention on Climate Change (UNFCCC).
- It creates a financial value for the carbon stored in forests by offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development.
- Developing countries would receive **results-based payments** for results-based actions.

REDD+ goes beyond simply deforestation and forest degradation and includes the role of conservation, sustainable management of forests and enhancement of forest carbon stocks.

8.10 HEAT DOME

Recently, in the Portland city in Oregon, US, temperatures as high as **46 degree Celsius** were recently registered.

 The temperatures being reported from the Pacific Northwest and some parts of Canada are part of a "historic" heat wave as a result of a phenomenon referred to as a "heat dome".





Heat Dome

- It is essentially a **mountain of warm air built into a very wavy jet stream**, with extreme undulations.
- It develops when there is a large poleward shift in the jet stream, which becomes wavy and elongated.
- The National Oceanic and Atmospheric Administration (NOAA) says that to understand what causes a heat dome, one should liken the **Pacific ocean to a large swimming pool** in which the heater is turned on.
 - The portions of the pool close to the heating jets will warm up faster once the heater is on and therefore, the temperature in that area will be higher.
- In the same way, the **western Pacific Ocean's temperatures have increased** in the past few decades and are relatively more than the temperature in the eastern Pacific.
- The **strong change in ocean temperature from the west to the east** is what a team of scientists believe is the reason for the heat dome.
 - The reason that the planet Venus is the hottest in the Solar System is because its thick, dense cloud cover traps the heat at the surface, leading to temperatures as high as 471 degree Celsius.

Heat Wave

- A heat wave is a **period of unusually hot weather** that lasts for more than two days.
- The NWS notes that heat waves can occur with or without high humidity and have the potential to cover a large area, exposing a high number of people to hazardous heat.
- A heatwave is an **extended period of hot weather relative to the expected conditions** of the area at that time of year, which may be accompanied by high humidity.





Link between Heat Waves and Climate Change

- The heatwaves are extreme weather events, but research shows that climate change is making these events more likely.
- A small increase in the Earth's average temperature can dramatically impact climate extremes, both hot and cold, increasing their chances of occurring exponentially.
- The extreme heat events are occurring more frequently with more severity, and therefore they will likely **push the average temperatures higher for years to come.**
- If greenhouse gas emissions are not significantly curtailed, the coldest and warmest
 daily temperatures are expected to increase by at least 5 degrees F in most areas
 by mid-century rising to 10 degrees F by late century.

Impact of Heat Waves

- Human Health: The extreme heat is one of the leading causes of weather-related deaths.
 - The Heat stress occurs in humans when the body is unable to cool itself effectively.
 - Hot days are also associated with increases in heat-related illnesses including cardiovascular and respiratory complications, kidney disease etc.
- **Agriculture:** Some crops require cool night temperatures, and heat stress for livestock rises when animals are unable to cool off at night.
 - The heat-stressed cattle can experience declines in milk production, slower growth, and reduced conception rates.
- **Energy:** While higher summer temperatures increase electricity demand for cooling, at the same time, it also can lower the ability of transmission lines to carry power, possibly leading to electricity reliability issues during heat waves.





8.11 NO GREAT INDIAN BUSTARD WITHIN KUTCH SANCTUARY

Recently, Union Minister of State for Environment, Forest and Climate Change has stated that there was **no Great Indian Bustard (GIB)** in **Kutch Bustard Sanctuary** as on January 1 2021.

Great Indian Bustard Sanctuary



- It is located near Lala village of Abdasa taluka of Kutch.
- It is one of the smallest bird sanctuaries of the country, but a thriving breeding ground for the endangered birds.
- It is a **semi-desert area allows for the 'ghorad' (local name)** to feed on cereal crops that grow in the region.
- The Bustard sanctuary was set up in **1992.**





- It is internationally acclaimed for successfully saving this precious species from the brink of extinction.
- It was declared as a sanctuary in 1965 and subsequently, an area of 258.71 sq. km.
 was declared a National Park.
- The endangered species like lesser florican, chinkara and wolf inhabit this area and this bustard has the rare distinction of being the heaviest flying bird.
- It is one of the two great Indian Bustard sanctuaries in Gujarat also known as Lala-Parjan Sanctuary.
- The varied vegetation, semi-arid grasslands, and marshy swamps make Kutch Bustard Sanctuary an ideal home for Great Indian Bustard.
- Varied vegetation, semi-arid grasslands, and marshy swamps make Kutch Bustard
 Sanctuary an ideal home for Great Indian Bustard
- It is a region of arid and semi-arid grasslands consisting of deserts, wetlands and marshy swamps. It is a grassland area which comprises of thorns, scattered bushes, and dry grass.

Great Indian Bustard

- **Characteristics:** It can easily be distinguished by its black crown on the forehead contrasting with the pale neck and head.
 - They breed mostly during the monsoon season when females lay a single egg on open ground.
 - They avoid grasses taller than themselves and dense scrub like thickets.
- Distribution: It was distributed throughout Western India, spanning 11 states, as well as parts of Pakistan.





- It is found scattered throughout the Indian states of Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Karnataka and Madhya Pradesh.
- **Protection:** It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972.
 - It is categorized as Critically Endangered under the IUCN Red List of Threatened Species.
- Habitat and Ecology: They inhabit dry and semi-dry grasslands with dispersed bushes and patches of scrub.
 - The Breeding tends to occur in undisturbed or less degraded grassland sites.
 - They are omnivores, feeding on insects, grass seeds, berries, rodents and reptiles.

8.12 MINISTRY OF TOURISM HAS IDENTIFIED "ECO CIRCUIT" AS ONE OF THE 15 THEMATIC CIRCUITS UNDER SWADESH DARSHAN SCHEME

Recently, the Ministry of Tourism has identified **"Eco Circuit"** as one of the 15 thematic circuits under **Swadesh Darshan Scheme**.

Swadesh Darshan Scheme

- It is a **Central Sector Scheme** launched by Ministry of Tourism for integrated development of theme based tourist circuits in the country in 2014-15.
- ECO Tourism being developed as part of "Niche Tourism"
- It is envisioned to **synergise with other Government of India** schemes like Swachh Bharat Abhiyan, Skill India, Make in India etc.





- The Scheme is **100% centrally funded** and efforts are made to achieve convergence with other schemes of Central and State Governments.
- It is a joint venture by the Central Government and Ministry of Tourism.

Objectives of Swadesh Darshan Scheme

- To position tourism as a **major engine of economic growth** and job creation;
- **Develop circuits** having tourist potential in a planned and prioritized manner;
- Promote cultural and heritage value of the country to generate livelihoods in the identified regions;
- Enhancing the tourist attractiveness in a sustainable manner by developing world class infrastructure in the circuit /destinations;
- Follow **community based development and pro-poor tourism** approach;
- Creating awareness among the local communities about the importance of tourism for them in terms of increased sources of income, improved living standards and overall development of the area; and
- To create employment through active involvement of local communities;
- Harness tourism potential for its effects in employment generation and economic development;
- To make full use of the potential and advantages in terms of available infrastructure,
 national culture and characteristic strong points of each and every region
 throughout the country by development of theme based circuits; and
- Development of **tourist facilitation services** to enhance visitor experience/satisfaction

8.13 BHARTIYA PRAKRITIK KRISHI PADDHATI (BPKP)





Recently, the Ministry of Agriculture & Farmers Welfare has stated that an **area of 4.9 lakh hectare** acre is covered in 8 states and Rs. 4980.99 lakh has been released under **Bhartiya Prakritik Krishi** Paddhati (BPKP).

• The eight states are Andhra Pradesh, Chhattisgarh, Kerala, Himachal Pradesh, Jharkhand, Odisha, Madhya Pradesh and Tamil Nadu.

Bhartiya Prakritik Krishi Paddhati (BPKP)

- It is a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY).
- It was launched in 2020-21 for the **promotion of traditional indigenous practices**.
- It emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on:
 - Biomass mulching;
 - Use of cow dung-urine formulations;
 - Plant-based preparations; and
 - Time to time working of soil for aeration
- Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.

Paramparagat Krishi Vikas Yojana (PKVY)

- It is an elaborated component of Soil Health Management (SHM) of major project National Mission of Sustainable Agriculture (NMSA).
- It aims at development of sustainable models of organic farming through a mix of traditional wisdom and modern science to ensure long term soil fertility buildup, resource conservation and helps in climate change adaptation and mitigation.





- It primarily aims to increase soil fertility and thereby helps in production of healthy food through organic practices without the use of agro-chemicals.
- It aims at empowering farmers through institutional development through clusters
 approach not only in farm practice management, input production, quality assurance but
 also in value addition and direct marketing through innovative means.
- It promotes Participatory Guarantee System (PGS) For India (PGS- India) form of organic certification that is built on mutual trust.
- The Funding pattern under the scheme is in the ratio of 60:40 by the Central and State Governments respectively.
 - In case of North Eastern and Himalayan States, Central Assistance is provided in the ratio of 90:10 (Centre: State) and for Union Territories, the assistance is 100%.

Objectives of Paramparagat Krishi Vikas Yojana (PKVY)

- To promote natural resource based integrated and climate resilient sustainable farming systems that ensure maintenance and increase of soil fertility, natural resource conservation, on-farm nutrient recycling and minimize dependence of farmers on external inputs;
- To reduce cost of agriculture to farmers through sustainable integrated organic farming systems thereby enhancing farmer's net income per unit of land;
- To sustainably **produce chemical free and nutritious food** for human consumption;
- To protect environment from hazardous inorganic chemicals by adoption of ecofriendly low cost traditional techniques and farmer friendly technologies;
- To empower farmers through their own institutional development in the form of clusters and group with capacity to manage production, processing, value addition and certification management; and





 To make farmers entrepreneurs through direct market linkages with local and national markets

8.14 G20 AGREES STATEMENT ON ENVIRONMENT

Environment and energy ministers from the Group of 20 rich nations were making little progress on 22 July 2021 on how to reach climate goals, officials said, with a cluster of countries resisting any firm commitments. The G20 meeting in Naples discussed biodiversity and the natural environment.

G20

- Italy, which holds the rotating G20 presidency this year, said the environment communique had finally been agreed to the "great joy" of all 20 countries after "weeks of negotiations and a two-day non-stop session".
- The G20 meeting is seen as a key intermediate stage ahead of global climate talks known as COP 26 to be held in Glasgow in November.
- The **urgency of climate action** has been brought home this month by deadly floods in Europe, fires in the United States and sweltering temperatures in Siberia, but countries remain at odds on how to pay for costly policies to reduce global warming.

Developed countries agreed at the **United Nations in 2009** to together contribute **\$100 billion each year by 2020 in climate finance to poorer countries**, many of whom are grappling with rising seas, storms and droughts made worse by climate change. However, that target has yet to be met.

8.15 UNION HOME MINISTER LAUNCHES GREEN SOHRA AFFORESTATION CAMPAIGN AT CHERRAPUNJI





Recently, the Union Home Minister has launched the **Green Sohra Afforestation**Campaign and Greater Sohra Water Supply Scheme at Sohra.

Green Sohra Afforestation Campaign

- It will be run by the **Meghalaya Government** with the help of **Assam Rifles**.
- It will greatly **benefit eco-tourism** and will also **boost tourism** in the state.
- The campaign gave the slogan "Evergreen Northeast", underlining the importance of afforestation and tree plantation.
- It is an ambitious project to make **Cherrapunji green again** and the entire area of Cherrapunji is going to be **adopted by Assam Rifles** for the purpose of plantation.

Greater Sohra Water Supply Scheme

- It is a part of the Prime Minister's ambitious project **Jal Jeevan Mission**.
- It will be implemented by the Ministry of DoNER and the Government of Meghalaya, under the North-East Special Infrastructure Scheme.
- It will provide **pure drinking water through taps** to every household.
- It has set the target of providing pure drinking water to every household in the state of Meghalaya and the country before the completion of 75 years of Independence and 50 years of Meghalaya.
- It is an ambitious programme to **provide drinking water to 280,000 families in the state of Meghalaya**, which is clubbed into 1874 small projects.

8.16 PARAMPARAGAT KRISHI VIKAS YOJANA (PKVY)-POST HARVEST MANAGEMENT SUPPORT TO ENCOURAGE ORGANIC FARMERS

Government of India has been **promoting Organic farming** in the country through dedicated scheme namely **Paramparagat Krishi Vikas Yojana (PKVY)** since 2015-16. The scheme stress





on **end to end support to organic farmers** i.e **from production to certification and marketing**. Post harvest management support including processing, packing, marketing is made integral part of these schemes to encourage organic farmers.

Paramparagat Krishi Vikas Yojana (PKVY):



- Paramparagat Krishi Vikas Yojana is an elaborated component of Soil Health Management (SHM) of major project National Mission of Sustainable Agriculture (NMSA).
- Under PKVY, farmers are provided financial assistance of Rs 50,000 per hectare/ 3
 years, out of which 31,000 (62%) is provided directly through DBT for inputs (bio
 fertilizers, bio-pesticides, organic manure, compost, vermi-compost, botanical extracts
 etc).
- Government has initiated Large Area Certification (LAC) programme since 2020-21 to certify large traditional/default organic areas such as hills, islands, tribal or desert belt with no past history of GMO and agro chemical uses, LAC certification process gets completed within 3-6 months
- It allows farmers for marketing of their produce at premium prices.





 Car Nicobar and Nancowry group of Island is the first Large Contiguous Area declared as certified organic farming.

Implementation:

Under PKVY Organic farming is promoted through the adoption of the organic village by cluster approach and PGS certification. Fifty or more farmers will form a cluster having 50-acre land to take up the organic farming under the scheme.

The produce will be pesticide residue free and will contribute to improving the health of the consumer.

Significance of Organic farming:

- Organic cultivation doesn't involve the use of chemical pesticides and fertilizers
- It helps to maintain a harmonious balance among the various complex ecosystems.
- It improves the quality of the soil which further improves the standards of the crops produced.

In the long term, organic farming leads in subsistence of agriculture, bio-diversity conservation and environmental protection. It will also help in building the soil health resulting in sustainable increased crop production.