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Director's message

Dear Aspirants,

US President Joe Biden's decision to withdraw all its troops from Afghanistan by September 11, 2021, after two decades of military presence in the region was met with uncertainty and questions about the fate of Afghanistan as the country is incapacitated with Covid-19 pandemic and the continued presence of Taliban and an American military pull out in the region at this juncture will lead to closing of all the gains the country made in the last 20 years.

The rapid withdrawal of US and NATO troops from Afghanistan, combined with the Taliban's recent territorial gains, will create a power struggle between the Taliban and the Afghan government that will likely cause a civil war and further degrade the regional security environment. The Sept. 11 deadline for the withdrawal of U.S. troops announced by President Joe Biden has become a symbolic timeline. On the ground, more than half of U.S. and NATO troops have already left Afghanistan and reports suggest remaining troops will leave the country as soon as the first week of July. On July 2, U.S. forces finished withdrawing from Bagram, their main military base in Afghanistan. Taking advantage of this strategic opportunity where Afghan troops are solely responsible for the security of the country, the Taliban launched an offensive campaign to capture and control territories, almost as soon as May 1st when foreign troop withdrawal began. The Taliban has since taken control of 221 districts of Afghanistan's 421 districts in just two months. With the Taliban gaining fresh ground, India moved its Consular Staff from Kandahar to Kabul with the local Staff manning it and also issued an advisory to its citizens to exercise extreme caution in view of the prevailing security scenario.

The idea of US and NATO troop withdrawal from Afghanistan was conditional on Taliban taking measures to avert and prevent Al-Qaeda or any other militant group from harbouring in Afghanistan, and an assurance for agreeing to a dialogue on power sharing with the Afghan government. It is apparent that the 20 years of war in Afghanistan has bled the US far more than it could absorb, leaving it financially weary and militarily fatigued. The US-based Brown University, in its well researched 20 years stated that nearly 175,000 people in Afghanistan including 51,000 terrorists-cum-opposition fighters had lost their lives while over 2,300 US soldiers had been killed. In addition, the war had cost the US nearly US \$2 trillion. Thus, it is not surprising that successive US administrations have been looking for an honourable exit, even if the hapless Afghans are left at the mercy of the medieval, regressive, intolerant and fundamentalist Taliban.

The withdrawal from Afghanistan will only bring challenges for the Indian Subcontinent as the US military presence kept a check on the radically extremist forces and created the possibility of a conducive environment for India to work with Afghanistan. The withdrawal can lead to a surge in international and regional terrorism, re-emergence of Taliban's influence on Pakistan and the political instability it will create in the region. India's larger concerns are about the resurgence of Taliban, which can undoubtedly

reassure and incite the extremist elements in Kashmir and other parts of India through India-focused militant groups such as Laskhar- e-Toiba and Jaish-e-Mohammed, which are believed to have relocated to Afghanistan in large numbers. Unlike the United States, both India and Pakistan share a geographical proximity to Afghanistan, therefore any political instability in the region will affect both the countries. Pakistan has been supportive of Taliban in the past and with the American withdrawal from Afghanistan, Pakistan can again scale up its support to Taliban. Therefore to safeguard its own interests, India needs to reorient its policies towards Afghanistan and deal with the changing dynamics of power shift in the region.

India has strategic interests in Afghanistan's future and as its ally, India can have an edge over Pakistan. Over the years India has tried to build its camaraderie with Afghanistan through investing in infrastructure, education sector, irrigation development and power generation projects. Indian engineers are helping to construct the Shahtoot Dam near Kabul and Afghanistan was among the first countries to receive anti Covid-19 vaccination from India. But despite this association, India's strategic, economic and security related interests depend on how the current Afghan government keeps the Taliban at bay after the Biden administration pulls its military presence from the region.

Since the last decade or so, India has made it clear that any resolution of Afghanistan must be "Afghan-led, Afghan-ruled, and Afghan-controlled". However, with the likely changing power equations in Kabul, there is a strong view amongst some Indian diplomats that India must open up channels of communication with moderate elements in the Taliban. However, are there any moderate or good Taliban elements exist is the moot question. India, as the pre-eminent South Asian power is expected to follow not only a policy which furthers its national interests but must also have moralistic and human overtones which distinguishes it from countries like China or Pakistan and should strive hard through diplomatic means to ensure the prevention of outbreak of civil war. Meanwhile, India must continue with its all-encompassing humanitarian assistance to the Kabul government. It will be both a matter of interest as well as concern to watch how the situation unfolds once the US troop withdrawal is complete and whether it will be a repetition of what happened post USSR withdrawal from Afghanistan in Feb 1989 or otherwise. There is every apprehension that the region where the first "Global War on Terrorism" was launched can once again turn into a hot bed of terrorist activities with the active connivance of Pakistan.

Best wishes.



K. Rajendra Kumar IPS (Retd.)

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1. NATIONAL

1.1 Sedition

- Free speech is an important principle of democracy as it allows an individual to attain self-fulfillment, assist in discovery of truth and strengthen the capacity of a person to take informed decisions. However, such freedom of speech often poses difficult questions at times exceeding the limit of reasonable restrictions. Thus, it becomes important to differentiate between freedom of speech and expression guaranteed by the Constitution, reasonable restrictions imposed on such freedom and grounds on which sedition can be imposed by State authorities.
- Article 19(1) guarantees freedom of speech and expression subject to reasonable limitations under Article 19(2) on grounds of –
 1. Interests of the sovereignty and integrity of India.
 2. The security of the State.
 3. Friendly relations with foreign States.
 4. Public order, decency or morality, or
 5. In relation to contempt of court, defamation or incitement to an offence.

What amounts to Sedition?

- Sedition as defined in Indian Penal Code under section 124A.
- “Whoever 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, shall be punished with imprisonment for life, to which fine may be added, or with imprisonment which may extend to three years, to which fine may be added, or with fine.”
- The expression “disaffection” includes disloyalty and all feelings of enmity.
- Comments expressing disapprobation of the measures of the Government with a view to obtain their alteration by lawful means, without exciting or attempting to excite hatred, contempt or disaffection, do not constitute an offence under sedition.
- Comments expressing disapprobation of the administrative or other action of the Government without exciting or attempting to excite hatred, contempt or disaffection, do not constitute an offence under this section.
- The Law Commission of India was asked to consider section 124A of the Indian Penal Code, 1860 which deals with sedition. Some of the important observations of Law Commission in its consultation paper (released in August, 2018) are:

- Dissent and criticism of the government are essential ingredients of a robust public debate in a vibrant democracy. Thus, if the country is not open to positive criticism, there lies little difference between the pre- and post-Independence eras.
- Right to criticise one's own history and the right to offend are rights protected under free speech under Article 19 of the Constitution. While it is essential to protect national integrity, it should not be misused as a tool to curb free speech.
- Every restriction on free speech and expression must be carefully scrutinised to avoid unwarranted restrictions.
- In a democracy, singing from the same songbook is not a benchmark of patriotism. People should be at liberty to show their affection towards their country in their own way.
- An expression of frustration over the state of affairs cannot be treated as sedition. For merely expressing a thought which is not in consonance with the policy of the government of the day, a person should not be charged under the provision of sedition.
- The Commission also asked whether it would be worthwhile to rename Section 124A and find a suitable substitute for the term – sedition.
- Thus, mere criticism of the government or its policies does not amount to sedition. Such a dissent or criticism must be accompanied by incitement to violence or intention or tendency to create public disorder or cause disturbance of public peace which is against the interests of sovereignty and integrity of India or security of the state – for invoking charges under sedition.
- The Supreme Court in *Romesh Thapar vs State of Madras* declared that unless the freedom of speech and expression threaten the security of or tend to overthrow the State, any law imposing restriction upon the same would not fall within the purview of Article 19(2) of the Constitution.
- In *Kedar Nath Singh vs State of Bihar, 1962*, a Constitution Bench had ruled in favour of the constitutional validity of Section 124A (sedition) in the IPC. The Court in this case:
 - Considered the importance of government established by law; and
 - Struck a balance between the right to free speech and expression and the power of the legislature to restrict

On Sedition – The Court in Kedar Nath case stated that:

- Creating public disorder by the use of actual violence or incitement to violence thereby disturbing public peace. such right
- Sedition is an offence against the state and any act which have the effect of subverting the Government by bringing that Government into contempt or hatred, or creating disaffection against it will be considered as sedition, including feeling of disloyalty to the Government established by law or enmity to it.

- On striking a balance – The Court held that a citizen has a right to say or write whatever he likes about the Government, or its measures, by way of criticism or comment, so long as he does not incite people to violence against the Government established by law or with the intention of creating public disorder.

1.2 **SC urged to stop illegal adoption**

- The Supreme Court has agreed to intervene after the National Commission for Protection of Child Rights (NCPCR) sounded the alarm on a spate of complaints about illegal adoption of COVID orphans through private individuals and organisations.

What's the issue?

- NCPCR statistics shows that 3,621 children were orphaned, 26,176 children lost either parent and 274 children were abandoned between April 1, 2021 to June 5, 2021. The second wave of the pandemic was at its worst form during this period, leaving a trail of death across the country.
- NCPCR had received many complaints in May that private individuals and organisations have been actively collecting data on these children while claiming that they want to assist families and children in adoption.
- Social media posts are circulating that children are up for adoption. This is plainly illegal and violates the Juvenile Justice Act.
- The Act also prohibits the disclosure of identity of children with regard to the name, school, age, address or any information which would reveal the essential details of the child.
- What is the procedure to be followed with children who have been orphaned?
- If someone has information about a child in need of care, then they must contact one of the four agencies: Child line 1098, or the district Child Welfare Committee (CWC), District Child Protection Officer (DCPO) or the helpline of the State Commission for Protection of Child Rights.
- Following this, the CWC will assess the child and place him or her in the immediate care of a Specialised Adoption Agency.
- When there is a child without a family, the State becomes the guardian.

About JJ Act, 2015:

- Aim: To Comprehensively address children in conflict with law and children in need of care and protection.
- It mandates setting up Juvenile Justice Boards and Child Welfare Committees in every district. Both must have at least one-woman member each.
- Also, the Central Adoption Resource Authority (CARA) was granted the status of a statutory body to enable it to perform its function more effectively.

- All Child Care Institutions, whether run by State Government or by voluntary or non-governmental organisations are to be mandatorily registered under the Act within 6 months from the date of commencement of the Act.

1.3 SAGE Initiative – SAGE Portal

- Shri Thaawarchand Gehlot, the Minister of Social Justice and Empowerment, virtually launched the SAGE (Senior care Ageing Growth Engine) initiative and SAGE portal for elderly persons on June 4th 2021.
- The project is shaped on the recommendations of the empowered expert committee (EEC) report on start-ups for elderly.
- SAGE programme and SAGE portal have been launched with a view to help such persons who are interested in entrepreneurship in the field of providing services for elderly care.
- The SAGE portal will be a “one-stop access” of elderly care products and services by credible start-ups.
- An allocation of Rs. 25 crores has been made for the SAGE project in the current financial year i.e. 2021-22.
- The Government aims to expand its scope of supporting elderly persons not only through Non-Governmental Organizations (NGOs) but also by generating multi-pronged interventions for them through innovative ways. Candidates can go through the Difference Between NGOs and SHGs on the given link.
- The initiative SAGE aims to identify, evaluate, verify, aggregate, and deliver products, solutions and services directly to the stakeholders.
- The Ministry will act as a facilitator, enabling the elderly to access the products through identified start-ups.
- The government has taken up the responsibility of guardianship of senior citizens and elderly persons, therefore, the initiative SAGE urges the elderly persons to come forward and take advantage of the services to be provided by the upcoming start-ups and lead an active life full of dignity in society. (Aspirants can read in detail about Social Welfare on the linked page.)
- The Ministry has designed the SAGE programme on start-ups for the elderly to also solicit the involvement of youth and their innovative ideas for elderly care. This will help to make the programmes for elderly care a national movement rather than just a government programme.
- An amount of Rs 100 crore has been assigned for the promotion of the silver economy because there is an urgent need to create a more robust eldercare ecosystem in India, especially after COVID.

Need for SAGE Initiative

- India's elderly population is steadily increasing. The share of elders, as a percentage of the total population in the country, is expected to increase from around 7.5% in 2001 to almost 12.5% by 2026, and surpass 19.5% by 2050.
- There is a need to keep in mind that the elderly should remain happy, healthy, and financially and physically active for which a Senior Citizen Welfare Fund was started in 2016. Taking forward the service programs related to senior citizens, this Seniorcare Ageing Growth Engine (SAGE) portal is a right step towards good governance.

1.4 National Security Act (NSA) 1980

- A petition was filed in the Supreme Court to invoke the National Security Act (NSA) against hoarding, profiteering, adulteration and black-marketing of COVID-19 essentials, including drugs and equipment.

What is the National Security Act (NSA)?

- The National Security Act was passed in 1980. It had been introduced by the Indira Gandhi government through the ordinance route. The NSA is a preventive detention law which means it is used by the authorities to detain a person so that he/she may be prevented from committing a crime and/or escape future prosecution.
- Preventive detention is basically the detention of a person without a trial to prevent him/her from committing a crime. Read more on preventive detention in the linked article.
- The forerunner to the preventive detention laws in India can be traced to the British colonial period.
- The first such law was 1818's Bengal Regulation III which enabled the government to arrest anyone for defence or for maintaining public order without giving the person any legal remedies.
- Then, in 1919, the Rowlatt Acts were passed which drew widespread condemnation from the political activists of the time.
- Later, after independence, the Nehru government enacted the Preventive Detention Act of 1950 which expired in 1969.
- In 1971, Indira Gandhi enacted the MISA (Maintenance of Internal Security Act, 1971), which gave unlimited powers to the government and law enforcement bodies. This was repealed in 1977.
- In 1980, the NSA was enacted.
- Article 22 (3) (b) of the Constitution of India allows for preventive detention and restriction on personal liberty for reasons of state security and public order.
- Further, Article 22(4) states that no law providing for preventive detention shall authorise the detention of a person for a longer period than three months unless:

- An Advisory Board reports sufficient cause for extended detention.
- The 44th Amendment Act of 1978 has reduced the period of detention without obtaining the opinion of an advisory board from three to two months. However, this provision has not yet been brought into force, hence, the original period of three months still continues.
- Such a person is detained in accordance with the provisions of any law made by the Parliament.

Provisions of the National Security Act 1980

- NSA empowers the Centre or a State government to detain a person so that he does not act in any manner prejudicial to national security. The person need not be charged during the period of detention.
- An individual can be detained without a charge for up to 12 months.
- The detained person can be held for 10 days without being told the charges against him.

Grounds of Detention

- Acting in any manner prejudicial to the defence of India, the relations of India with foreign powers, or the security of India.
- Regulating the continued presence of any foreigner in India or to make arrangements for his expulsion from India.
- Preventing them from acting in any manner prejudicial to the security of the State or from acting in any manner prejudicial to the maintenance of public order or from acting in any manner prejudicial to the maintenance of supplies and services essential to the community it is necessary so to do.

1.5 National Human Rights Commission (NHRC)

- The National Human Rights Commission is a statutory body established in 1993 under the Protection of Human Rights Act, 1993.
- The commission is the watchdog of human rights in the country i.e. the rights relating to life, liberty, equality and dignity of the individual guaranteed by the Constitution or embodied in the international covenants and enforceable by courts in India.

Objectives:

- To strengthen the institutional arrangements through which human rights issues could be addressed in their entirety in a more focussed *manner*.
- To look into allegations of excesses, independently of the government, in a manner that would underline the government's commitment to protect human rights.
- To complement and strengthen the efforts that have already been made in this direction.
- Composition of NHRC:
 - The commission is a multi-member body consisting of a chairperson and five members.
 - The chairperson should be a retired Chief Justice of India or a judge of the Supreme Court.

- The chairperson and members are appointed by the President on the recommendations of a six-member committee consisting of:
- Prime Minister (Head)
- Speaker of Lok Sabha
- Deputy Chairman of Rajya Sabha
- Leaders of the Opposition in Both Houses of Parliament
- Union Home Minister
- The chairperson and members hold office for a term of three years or until they attain the age of 70 years, whichever is earlier. They are eligible for reappointment.
- After their tenure, the chairperson and members are not eligible for further employment under the Central or a state government.
- In addition to these full-time members, the commission also has seven ex-officio members—the chairpersons of the National Commission for Minorities, the National Commission for SCs, the National Commission for STs, the National Commission for Women, the National Commission for BCs and the National Commission for Protection of Child Rights and the Chief Commissioner for Persons with Disabilities.

Functions of the Commission:

- To inquire into any violation of human rights or negligence in the prevention of such violation by a public servant, either suo motu or on a petition presented to it or on an order of a court.
- To intervene in any proceeding involving allegation of violation of human rights pending before a court.
- To visit jails and detention places to study the living conditions of inmates.
- To review the constitutional and other legal safeguards for the protection of human rights.
- To encourage the efforts of nongovernmental organisations (NGOs) working in the field of human rights.
- To undertake such other functions as it may consider necessary for the promotion of human rights.
- Working of the Commission:
- The commission is vested with the powers of a civil court and its proceedings have a judicial character.
- The commission has its own nucleus of investigating staff for investigation into complaints of human rights violations.
- It may call for information or report from the Central and state governments or any other authority subordinate thereto.
- Headquarters: Delhi

- Limitations of the Commission:
- It can only look into a matter within one year of its occurrence.
- The functions of the commission are mainly recommendatory in nature.
- It has no power to punish the violators of human rights, nor to award any relief including monetary relief to the victim.
- Its recommendations are not binding on the concerned government or authority.
- The commission has limited role, powers and jurisdiction with respect to the violation of human rights by the members of the armed forces.

1.6 **AmbiTAG**

- IIT Ropar develops “AmbiTAG”.
- AmbiTAG is India’s first indigenous temperature data logger for cold chain management.
- It is an Internet-of-Things (IoT) device that records real-time ambient temperature during the transportation of perishable products, vaccines and even body organs and blood.
- That recorded temperature further helps to know whether that particular item transported from anywhere in the world is still usable or perished because of temperature variation.
- This information is particularly critical for vaccines including Covid-19 vaccine, organs and blood transportation.
- Shaped as USB device, AmbiTag continuously records the temperature of its immediate surroundings “from -40 to +80 degrees in any time zone for a full 90 days on a single charge.
- It is to be noted that most of the similar devices available in the international market record data only for a duration of 30 – 60 days.
- The device generates an alert when the temperature goes beyond a pre-set limit.
- This is significant because currently, such devices are being imported from Singapore, Hong Kong, Ireland, and China.
- The device has been developed under Technology Innovation Hub – AWaDH (Agriculture and Water Technology Development Hub) and its StartupScratchNest.
- AWaDH is a Govt of India project.

1.7 **Model Tenancy Act**

- Union Cabinet approved the Model Tenancy Act for circulation to all States / Union Territories for adaptation by way of enacting fresh legislation or amending existing rental laws suitably.

Background

- Government had first released the draft of the Model Tenancy Act in 2019.
- The Act aims to bridge the trust deficit between tenants and landlords by clearly delineating their obligations.

- It will help overhaul the legal framework with respect to rental housing across the country, which would help spur its overall growth.
- 1.1 crore vacant houses available on rent will compliment PM's vision of 'Housing for All' by 2022'.
- Creating a vibrant, sustainable and inclusive rental housing market in the country.
- Model Tenancy Act won't cover hotels, lodging houses, inns, etc.
- This model law will not affect existing tenancies.

How the Act Helps ?

- Enable creation of adequate rental housing stock for all the income groups thereby addressing the issue of homelessness.
- It will balance the rights of both landlords and tenants.
- Model Tenancy Act will enable institutionalisation of rental housing by gradually shifting it towards the formal market.
- It will facilitate unlocking of vacant houses for rental housing purposes.
- It is expected to give a fillip to private participation in rental housing as a business model for addressing the huge housing shortage.
- Create an accountable and transparent manner.
- It will ensure a speedy dispute resolving mechanism under the act.
- Establishing a separate Rent Court and Rent Tribunal in every state/UTs to hear appeals for matters connected to rental housing.
- Disposal of complaints and appeals by the Rent Court and Rent Tribunals within 60 days.
- Take people from informal to specific contract arrangements between landlord and tenant.
- The major challenge is that the Act is not binding on the states as land and urban development remain as state subjects.
- But as per the memorandum of understanding signed between the states and union territories under PMAY-U, the states and union territories would legislate or amend the existing rental laws on the lines of the Model Tenancy Act.

Key features

- The very act will balance the interest and rights of both the owner and tenant.
- Dispute between landlord and tenant a rent authority, or a rent court would be available for speedy resolution.
- Tenant will have to submit a security deposit in two ways
- Two months for residential premises
- Six-month rent for commercial property

- The tenant cannot able to rent out the property as a whole or part.

Rent Agreement

- The tenant fails to vacate the premises on the expiration of the period of tenancy or termination of tenancy the landlord is entitled to do the following
- Double the monthly rent for two months
- Four times after that
- About increasing the rent
- Landowner would give a notice in writing three months before revising rent.
- The landlord cannot hike the rent in the middle of the tenure.

Restriction for Landowner

- Landowner cannot enter the rented premises without 24-hour prior notice to carry out repairs or replacement.
- Landowner cannot cut power and water supply in case of a dispute with the tenant.
- Responsible to repair basic damages and basic up-gradation like whitewashing walls and painting doors and windows.

What is the impact on Real Estate ?

- Model Tenancy Act will fuel the rental housing supply by attracting more investors
- More rental housing stock will help students, working professionals and migrant populations to find urban accommodation.
- Aimed at bridging the trust deficit between tenants and landlords by clearly delineating their obligations that will open up more players in the field confidence to landlords.
- Attract corporate players to provide serviced apartments for their employees.

1.8 Research Design & Standards Organization

- RDSO (Research Design & Standards Organization) of Indian Railways has become the FIRST Institution to be declared SDO under the “One Nation One Standard ” mission of BIS (Bureau of Indian Standards).

About RDSO

- Research Designs & Standards Organization (RDSO), Lucknow, \ is the sole R&D Wing of the Ministry of Railways.
- It is one of India’s leading Standard formulating Body undertaking standardization work for the railway sector.
- What is One Nation One Standard mission?
- The purpose of setting standards and enforcing them is not to bring back “inspection raj” but to ensure that quality products are made available to consumers.

- The Bureau of Indian Standards (BIS), the only national body that frames standards, has come out with more than 20,000 standards for various products and services so far.
- Besides this, there are about 50-odd agencies that have framed about 400 standards in the country.
- There are multiple standards in the country for a single product/service. The new mission is to converge such standards with the BIS.

Objectives of the mission:

- No one should feel the need to go abroad to get a quality certification.
- Lab testing in India should be of world standards. Modern equipment and the latest technologies would be used there.

Why such a move?

- Having uniform national standards will help in making it mandatory for more products.
- The government proposes to set Indian standards in line with the global benchmarks, just like other countries enforce their standards on imported products.
- The Centre, through this move, wants foreign goods coming into India to comply with Indian standards.

1.9 SDG India Index

NITI Aayog has released the third edition of Sustainable Development Goals India Index 2021.

Sustainable Development Goals (SDGs):

- The Sustainable Development Goals are a set of seventeen pointer targets that all the countries which are members of the UN agreed to work upon for the better future of the country.
- It is a group of 17 goals with 169 targets and 304 indicators, as proposed by the United Nations General Assembly's Open Working Group on Sustainable Development Goals to be achieved by 2030. Post negotiations, an agenda titled "Transforming Our World: the 2030 agenda for Sustainable Development" was adopted at the United Nations Sustainable Development Summit.
- SDGs are the outcome of the Rio+20 conference (2012) held in Rio De Janeiro and is a non-binding document.
- What is NITI Aayog Sustainable Development Goals (SDG) India Index?
- NITI Aayog has introduced the SDG India Index in 2018. It is a baseline report which comprehensively documents the progress made by India's States and Union Territories towards implementing the 2030 SDG targets.
- The Index tracks the progress of all the States and Union Territories (UTs) on a set of 62 National Indicators, measuring their progress on the outcomes of the interventions and schemes of the Government of India.

- It has been designed to provide an aggregate assessment of the performance of all Indian States and UTs and to help leaders and change-makers evaluate their performance on social, economic, and environmental parameters.
- From covering 13 goals, 39 targets, and 62 indicators in the first edition in 2018-19 to 17 goals, 54 targets, and 100 in indicators in the second; this third edition of the index covers 17 goals, 70 targets, and 115 indicators.
- The index, developed in collaboration with the United Nations in India, measures the progress at the national and subnational level in the country's journey towards meeting the global goals and targets.
- It has been successful as an advocacy tool to propagate the messages of sustainability resilience and partnerships as well.

Categories of states on the basis of scores:

- Aspirants: The states which score 0 to 49 come in the category of aspirants.
- Performer: The states scoring 50 to 64 belong to the performer category.
- Front runner: The states with the score between 65 to 99 are the front runners.
- Achiever: The states which score 100 belong to the category of achievers.
- Performance of the states according to the SDG India Index 2021:

The performance of the states are given below:

- Top Performers: Kerala retained its rank as the top state with a score of 75. Both Himachal Pradesh and Tamil Nadu took the second spot with a score of 74.
- Worst Performers: Bihar (52), Jharkhand (56), and Assam (57) were the worst-performing states in this year's India index.
- Top Performer Union Territories: Chandigarh maintained its top spot among the UTs with a score of 79, followed by Delhi (68) and Lakshadweep (68).
- New Front Runners added to the list: Uttarakhand, Gujarat, Maharashtra, Mizoram, Punjab, Haryana, Tripura, Delhi, Lakshadweep, Andaman and Nicobar Islands, Jammu and Kashmir, and Ladakh graduated to the category of front-runners (scores between 65 and 99, including both). As per the report, Tamil Nadu and Delhi have done well on improving the per capita income of individuals, Gujarat and Delhi have given the best performance in the health sector, while Kerala and Chandigarh have done well in education.
- Top Gainers: Mizoram, Haryana, and Uttarakhand have been top gainers with 12, 10, and 8 points respectively.

Where does India stand?

- The country's overall SDG score improved by 6 points – from 60 in 2019 to 66 in 2020-21.

- This positive stride towards achieving the targets is largely driven by exemplary country-wide performance in goal 6 (clean water and sanitation) and goal 7 (affordable and clean energy), where the composite goal scores are 83 and 92, respectively.

Areas of Weakness:

- Goal 2 (Nutrition Zero Hunger): It is largely driven by the level of stunting, wasting among children, anaemia among women, underweight children, pregnant women with anemia, etc.
- Goal 5 (Gender equality): This goal talks about women's participation in the economy and political arena, gender parity, security of women, women's control over family planning, labour force participation rate, operational landholding, managerial positions in the company, equal pay, etc.
- These two areas still belong to the aspirant categories or red zone under which scores lie between 1 to 49. Hence, these are the areas that have to be worked upon by not only the government but also with the efforts of the whole society and synergies across the departments.
- Although there has been an improvement in goals 2 and 5 in comparison to 2019 in terms of the scores rising from 42 to 48, none of the states belong to the green zone in goals 2 and 5.
- Some of the states doing well in goal 5 are Chattisgarh, Kerala, Himachal Pradesh, Tamil Nadu, and Andhra Pradesh. The states at the bottom are Assam, Arunachal Pradesh, Tripura, and Assam. Hence, these are the critical states which require a lot more attention.

Way Forward:

- The critical areas of each state should be diagnosed and then policy reforms should be made accordingly.
- The poor indicators that crucially belong to goal 2 and goal 5 require collective efforts, policy efforts, social, economic, and political efforts as well.
- States should learn from each other, they can implement the good policies of each other that can lead to improvement in their performances. This kind of cross-learning is very useful.
- Evidence-based policy-making should be implemented by the state governments.
- Goal 3 which deals with good health and wellbeing is the major area of concern these days. It has shown a lot of improvement with scores rising from 61 in 2019 to 74 in 2020. It is expected that this improvement will be continued because the entire machinery is working towards improving the system.

1.10 NPR slips valid for long-term visas

- Union Home Ministry has clarified that migrants belonging to six non-Muslim minority communities from Afghanistan, Pakistan and Bangladesh, while applying for long-term visas (LTVs), can also produce National Population Register (NPR) enrolment slips as proof of the duration of their stay in India.

Background:

- The NPR number is part of an illustrative list of more than 10 documents that could be provided to apply for an LTV, which is a precursor to acquiring Indian citizenship either by naturalisation or registration under Section 5 and 6 of the Citizenship Act, 1955, for the six communities — Hindus, Sikhs, Jains, Parsis, Christians and Buddhists — from the three countries.
- The special provision of LTVs for Hindus and Sikhs from Pakistan and Afghanistan was first made in 2011.

What are LTVs?

- For foreigners of non-Indian origin, a longer-term visa is classed as one that permits the holder to stay in India for longer than 180 days (six months) continuously. The main visas that provide this are the Employment, Entry and Student visas.

Benefits of LTV:

- People belonging to minority communities from neighbouring countries having LTVs are allowed to purchase a small house for their family and can even establish a business.
- They are eligible to obtain Aadhaar card, PAN card and driving licences. The LTV also allows them to buy property.

What is NPR?

- The NPR was first compiled in 2010 simultaneously with the decadal Census exercise and later updated in 2015.
- The NPR is a register of usual residents linked with location particulars down to the village level and is updated periodically “to incorporate the changes due to birth, death and migration”.
- The next phase of the NPR, expected to include contentious questions on date and place of birth of father and mother, last place of residence and mother tongue.
- The next phase was to be simultaneously updated with the 2021 House Listing and Housing Census but has been indefinitely postponed due to the COVID-19 pandemic.
- Acquisition and Determination of Indian Citizenship:
- There are four ways in which Indian citizenship can be acquired: birth, descent, registration and naturalisation. The provisions are listed under the Citizenship Act, 1955.

By Registration:

- Citizenship can also be acquired by registration. Some of the mandatory rules are:
- A person of Indian origin who has been a resident of India for 7 years before applying for registration.
- A person of Indian origin who is a resident of any country outside undivided India.

- A person who is married to an Indian citizen and is ordinarily resident for 7 years before applying for registration.
- Minor children of persons who are citizens of India.

By Naturalisation:

- A person can acquire citizenship by naturalisation if he/she is ordinarily resident of India for 12 years (throughout 12 months preceding the date of application and 11 years in the aggregate) and fulfils all qualifications in the third schedule of the Citizenship Act.
- Citizenship (Amendment) Act, 2019 (CAA):
- The amendment provides that the Hindus, Sikhs, Buddhists, Jains, Parsis and Christians from Afghanistan, Bangladesh and Pakistan, who entered India on or before December 31, 2014, will not be treated as illegal migrants.
- For these groups of persons, the 11 years' requirement will be reduced to five years.

1.11 Model Panchayat Citizens Charter

- A Model Panchayat Citizens Charter was recently released .
- Ministry: Ministry of Panchayati Raj
- Prepared by: Ministry of Panchayati Raj (MoPR) in collaboration with National Institute of Rural Development & Panchayati Raj (NIRDPR).

About the Model Panchayat Citizens Charter

- It is a framework for delivery of the services across the 29 sectors, aligning actions with localised Sustainable Development Goals (SDGs)

What is its aim?

- To Provide Services to the People in a Time Bound Manner
- Redressing their Grievances
- Improving their Lives.
- The Panchayats will utilise this framework to draw up a Citizens Charter and adopt it through a resolution of the Gram Sabha by 15th August, 2021.
- Panchayats are responsible for delivery of basic services as enshrined under article 243G of the Constitution of India, specifically in the areas of Health & Sanitation, Education, Nutrition, Drinking Water.

Important value additions

- National Institute of Rural Development and Panchayati Raj (NIRD&PR)
- It is an autonomous organisation under the Union Ministry of Rural Development.
- It is a premier national centre of excellence in rural development and Panchayati Raj.

- It builds capacities of rural development functionaries, elected representatives of PRIs, bankers, NGOs and other stakeholders.
- It is recognized internationally as one of the UN-ESCAP Centres of Excellence.
- The Institute is located in Hyderabad, Telangana.
- It also has North-Eastern Regional Centre (NERC) at Guwahati, Assam to meet the NE-regional needs.

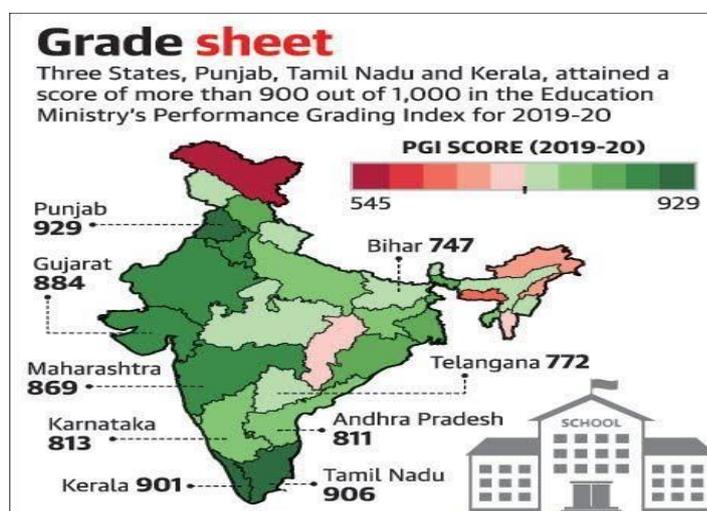
1.12 Education index ranking:

Context:

- The Ministry of Education has released the Performance Grading Index for 2019-20.
- About the Performance Grading Index:
- PGI is a tool to grade all States and UTs on their performance across 70 indicators on school education.
- First published in 2019 with reference year 2017-18.
- The Indicators have been grouped into 2 Categories – Outcomes and Governance & Management with 4 Domains under the first category and 1 under the second.
- Objective: To encourage States & UTs to adopt best practices like online recruitment and transfer of teachers, electronic attendance of students & teachers.
- Significance: Grading system assists the States & UTs to identify gaps and design appropriate interventions to bridge them.

Latest findings:

- Punjab, Chandigarh, Tamil Nadu, Andaman and Nicobar Islands, and Kerala occupy the highest grade A++ in 2019-20.
- Delhi, Gujarat, Haryana, Rajasthan, Puducherry, Dadra and Nagar Haveli are in the A+ category.
- Punjab has scored the maximum points for governance and management.
- Bihar and Meghalaya have scored the lowest in terms of infrastructure and facilities.



1.13 Rengma Nagas

- Recently, the Rengma Naga Peoples' Council (RNPC) in Assam has written to the Union Home Minister demanding an autonomous district council for Rengma Nagas.

Background:

- This demand comes amid a decision by the Central and the State governments to upgrade the Karbi Anglong Autonomous Council (KAAC) into a territorial council.
- The RNPC President highlighted the issue that the government was on the verge of taking a decision without taking them on board.

About:

- RNPC has been writing to the governments for many years about the issue highlighting why it wants a different council.

Demographic Reasons

- The KAAC population is around 12 lakh and out of that, the Karbis constitute only 3 lakh.
- The remaining are non-Karbis, including the Rengma Nagas, whose population is around 22,000.
- Rengma Nagas speak different dialects and do not know the Karbi language of Karbi Anglong.

Historical Reasons

- Karbis have no history in the Rengma Hills and people who are presently living in Rengma Hills are from Assam, Arunachal Pradesh and Meghalaya.
- The Karbis, who were known as Mikirs till 1976, were the indigeneous tribal people of Mikir Hills.
- The Rengma Hills and Mikir Hills (now KarbiAnglong) were two separate entities until 1951 and the existing Rengma Hills was eliminated from the political map and replaced with Mikir Hills.
- Rengma Hills have witnessed aggressive influx of outsiders for vested interests.
- Rengmas were the first tribal people in Assam to have encountered the British in 1839.
- During the Burmese invasions of Assam in 1816 and 1819, Rengmas gave shelter to the Ahom refugees.
- Rengma Hills were partitioned in 1963 between Assam and Nagaland at the time of creation of Nagaland State.

1.14 Jardalu Mangoes

- The first commercial consignment of Geographical Indications(GI) certified Jardalu mangoes from Bhagalpur, Bihar was exported to the United Kingdom.

About Jardalu Mangoes:

- Jardalu Mangoes is grown in the Bhagalpur district of Bihar. It received the Geographical Indications(GI) certification in 2018.
- The mango is famous for its exclusive aroma, sweetness and other nutritional properties.
- It is rich in fibre and enzymes that are highly beneficial to the abdominal muscles and digestive system.
- Moreover, Jardalu mango is also considered a safe fruit for even those who have been diagnosed with diabetes or have a poor digestive system.

About Mangoes in India:

- Mangoes in India are referred to as ‘king of fruits. They are mentioned in ancient scriptures as Kalpavriksha (wish-granting tree).
- States: Uttar Pradesh, Bihar, Andhra Pradesh, Telangana, Karnataka have a major share in the total production of the mango.

GI certified mangoes in News:

- Khirsapati&Lakshmanbhog (West Bengal),
- Jardalu (Bihar),
- Banganapalli and Suvarnarekha mango varieties (Andhra Pradesh).

1.15 YUVA scheme

- In June 2021, Prime Minister Narendra Modi announced the launch of the YUVA Scheme, a scheme to mentor young Indian authors. Government schemes are important for the UPSC exam as questions are often asked on them. In this article, you can learn all about the YUVA Scheme.
- ‘Young, Upcoming and Versatile Authors’ (YUVA) Scheme
- The YUVA scheme is basically a mentorship program to train young authors. It is aimed at mentoring 75 writers under the age of 30.
- It targets young authors who are ready to express themselves and portray Indian culture and literature in a global arena.
- Under the scheme, each author will get a consolidated scholarship of Rs 50,000 per month for a period of six months.
- The idea behind this program is to push reading and authorship as a profession on par with other professions.
- Another motive behind the initiative is to provide a positive psychological push to young minds in the midst of the COVID-19 pandemic.
- The scheme envisions cultivating modern ambassadors of Indian literature as the country heads towards 75 years of independence.

- The scheme is expected to generate a stream of writers who would be able to write on a variety of topics promoting Indian heritage, culture and knowledge.
- This will also give a window to aspiring writers to express themselves in their mother tongues and represent their country at the international level.
- The scheme will cover various genres such as fiction, non-fiction, drama, poetry, memoirs, travelogues and so on.

1.16 Kerala's Smart Kitchen project:

Context:

- The Kerala government has announced the introduction of a Smart Kitchen project, which is meant to modernise kitchens and ease the difficulty faced by homemakers in household chores.

About the scheme:

- To be implemented through the Kerala State Financial Enterprises (KSFE), a state-run chit fund and lending firm.
- Under the scheme, KSFE would give soft loans to women from all walks of life for purchasing household gadgets or equipment.
- The interest of the loan/cost would be equally shared among the beneficiary, local self-government body and the state government.
- Need for/significance of the scheme;
- Gender budgeting: The government believes that for better participation of women in labour, the burden on household chores has to be reduced.
- Increase women participation: By enhancing mechanisation in kitchens, women participation in labour could be increased.

1.17 Breach of privilege motion

Context:

- CPI MP Binoy Viswam has filed a breach of privilege motion against the Lakshadweep Administrator Praful K. Patel for denying him permission to visit the islands.
- The MP has said that the Right of a parliamentarian to move freely and meet with the people is integral to the privilege of their position itself.

Background:

- The District Administration has responded saying that the MP was not allowed to visit as per the Covid protocols in place.
- What are Parliamentary Privileges?
- Parliamentary Privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can “effectively discharge their functions”.

- Article 105 of the Constitution expressly mentions two privileges, that is, freedom of speech in Parliament and right of publication of its proceedings.
- Apart from the privileges as specified in the Constitution, the Code of Civil Procedure, 1908, provides for freedom from arrest and detention of members under civil process during the continuance of the meeting of the House or of a committee thereof and forty days before its commencement and forty days after its conclusion.

Motion against breaches:

- When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.
- A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege.
- Role of the Speaker/Rajya Sabha (RS) Chairperson:
- The Speaker/RS chairperson is the first level of scrutiny of a privilege motion.
- The Speaker/Chair can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament.
- If the Speaker/Chair gives consent under relevant rules, the member concerned is given an opportunity to make a short statement.

Applicability:

- The Constitution also extends the parliamentary privileges to those persons who are entitled to speak and take part in the proceedings of a House of Parliament or any of its committees. These include the Attorney General of India.
- The parliamentary privileges do not extend to the President who is also an integral part of the Parliament. Article 361 of the Constitution provides for privileges for the President.

1.18 National Security Guard**About NSG:**

- The National Security Guard (NSG) is an elite counter-terrorism unit under the Indian Ministry of Home Affairs (MHA).
- It was founded on 22 September 1986 under the National Security Guard Act, 1986, following Operation Blue Star, the Golden Temple attack and the assassination of Indian Prime Minister Indira Gandhi, “for combating terrorist activities and protect states against internal disturbances”
- National Security Guard personnel are sometimes referred to as The Black Cats.
- The NSG is modelled on the GSG-9 of Germany and the United Kingdom’s SAS.
- It operates under the Ministry of Home Affairs and is a task-oriented force that has two complementary elements in the form of:

- Special Action Group (SAG) comprising of the Army personnel- is the main offensive or the strike wing of the NSG, and Special Ranger Groups (SRG) comprising of personnel drawn from the Central Armed Police Forces/State Police Forces. They generally handle VIP securities.
- The head of NSG- designated as Director General (DG), is selected and appointed by the Ministry of Home Affairs.
- Motto: 'Sarvatra, Sarvottam, Suraksha'
- National Security Guard has been given the specific role to handle all facets of terrorism in any part of the country as a Federal Contingency Force.
- There is no direct recruitment to the NSG. Personnel from the army/police forces serve in the NSG on deputation.
- NSG is headed by a Director-General who is generally drawn from the Indian Police Service.
- Some of the major operations of the NSG include:
 - Operation Black Thunder (anti-Khalistani operation in the late eighties)
 - Operation Ashwamedh (hijack rescue mission in 1993)
 - Operation Vajra Shakti (Akshardham Temple, Gandhinagar, 2002)
 - Operation Black Thunder (26/11 Mumbai attacks, 2008)

Functions of National Security Guard

- Counter hijacking tasks on land, air and sea
- Post blast investigation
- Bomb disposal (search, detection & neutralisation of IEDs)
- VIP security
- Hostage rescue missions

Why was the National Security Guard formed ?

- The basic philosophy behind the establishment of the NSG was to create such a dedicated, responsible and agile task force that can strike speedily on all facets of terrorism in any part of the country as a Federal Contingency Force.
- The NSG is a task oriented force that has 2 complementary elements consists of Special Ranger Groups (SRG) and the Special Action Group (SAG).
- The Special Ranger Groups (SRG), comprises of personnel drawn from the Central Armed Police Forces and State Police Forces while Special Action Group (SAG) is composed of Army personnel.
- The National Security Guard (NSG) remains ready 24×7 to meet all challenges to ensure security of the Nation.

1.19 Tulu language

- Clamour grows for Tulu to be included in the eighth schedule of the Constitution and given official language status in Karnataka and Kerala.

About Tulu language:

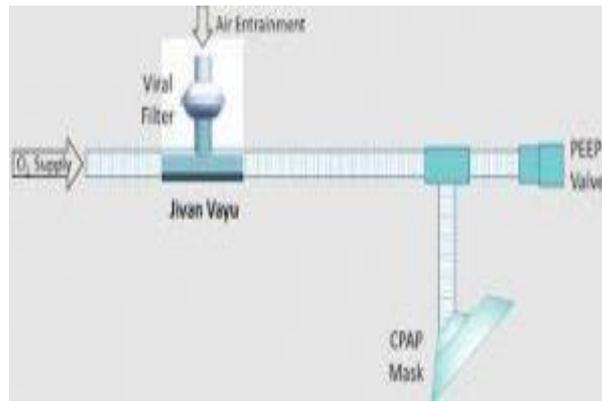
- Tulu is a Dravidian language spoken mainly in two coastal districts Dakshina Kannada and Udupi of Karnataka and Kasaragod district of Kerala.
- As per the 2011 Census report, there are 18,46,427 Tulu-speaking people in India.
- Robert Caldwell (1814-1891), in his book, A Comparative Grammar of the Dravidian or South-Indian Family of Languages, called Tulu “one of the most highly developed languages of the Dravidian family”.
- Tulu has a rich oral literature tradition with folk-song forms like paddana, and traditional folk theatre Yakshagana.

Eighth schedule to the Constitution:

- Part XVII of the Indian constitution deals with the official languages in Articles 343 to 351.
- The Constitutional provisions related to the Eighth Schedule are:
- Article 344: Article 344(1) provides for the constitution of a Commission by the President on expiration of five years from the commencement of the Constitution.
- Article 351: It provides for the spread of the Hindi language to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India.
- Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri are the 22 languages presently in the eighth schedule to the Constitution.

1.20 Jivan Vayu

- IIT Ropar has developed the nation’s first power-free CPAP device ‘JivanVayu’. This substitute of CPAP machines can function even without electricity.
- It is adapted to both kinds of oxygen generation units like O2 cylinders and oxygen pipelines in hospitals. These provisions are not available in otherwise existing CPAP machines.
- Continuous Positive Airway Pressure (CPAP) is a treatment method for patients having breathing problems during sleep called sleep apnea.
- The machine uses mild air pressure to keep the airways open for easy breathing. It is also used to treat infants whose lungs have not fully developed. The machine blows air into the baby’s nose to help inflate his or her lungs.
- The treatment is all the more necessary during the early stages of the Covid-19 infection. It reduces lung damage and allows patients to recover from the inflammatory effects.



1.21 Raja Parba festival of Odisha

- This is a three-day-long festival dedicated to Mother Earth (Bhuma Devi) and womanhood at large.
- The first day of the festival is called Pahili Raja, the second is MithunaSankranti and the third Bhudaha or Basi Raja.
- The fourth and final day is called Vasumatisnana (bathing of Mother Earth).
- This festival is also associated with the end of the summer season and the arrival of the monsoon.

1.22 Inland Vessels Bill, 2021

- On June 16, 2021, the Union Cabinet had approved the Inland Vessels Bill, 2021, which will regulate the safety, security and registration of inland vessels. This Bill will replace the Inland Vessels Act, 1917, once it is passed in Parliament.

Key Features of the Inland Vessels Bill, 2021

- This will be a unified law for the entire country and will supplant the separate rules framed by the States
- The certificate of registration granted under the proposed law will be deemed to be valid in all States and Union Territories, and there will be no need to seek separate permissions from the States
- A total of 4000 km of inland waterways have been operationalised
- As per the bill, a central database will be maintained that shall record each vessel's details like its registration and crew, all on an electronic portal.
- The vessels which are mechanically propelled will have to register themselves mandatorily as per the bill, and the non-mechanically propelled vessels will also have to compulsorily register themselves at district, taluk or panchayat or village level
- It enlarges the definition of 'inland waters', by including tidal water limit and national waterways declared by the Central Government

Objectives of Inland Vessels Bill, 2021

- This Bill will promote economic and safe transportation and trade of inland waterways and bring uniformity in the application of the law.

- It will also help in reducing the water pollution caused by these inland vessels as this bill directs the Central Government to designate a list of chemicals, substances, etc. as pollutants

Inland Waterways in India

- About 14,500 km of navigable waterways are present in India, which comprises canals, rivers, lakes, etc.
- India has constantly been taking up initiatives for the development of waterways and water transport in the country. A few of these include:
 - Sagarmala Project – Cabinet approved scheme, launched in 2015 to promote port-led development in India. The project also seeks to boost infrastructure for transporting goods to and from ports quickly, efficiently, and cost-effectively
 - Jal Marg Vikas Project (JMVP) – Announced in the Union Budget of 2014, the project is implemented by the Inland Waterways Authority of India (IWAI) aims to develop the National Waterways of the country. It is financially supported by the World Bank and is expected to be completed by 31st December 2023.
- Inland Waterways Authority of India (IWAI), constituted in October 1986, is the body responsible for the development and regulation of inland waterways for shipping and navigation in the country. It also assists States in the development of the Inland Water Transport (IWT) sector and provides a subsidy to IWT operators for acquiring a fleet for transportation of cargo and passengers.

1.23 Jalgaon Banana

- A consignment of fiber and mineral-rich GI CERTIFIED Jalgaon banana has been exported to Dubai from Tandalwadi village, Jalgaon district of Maharashtra. In 2016, Jalgaon Banana got GI certification which was registered with Nisargraja Krishi Vigyan Kendra (KVK) in Jalgaon.
- India is the world's leading producer of bananas with a share of around 25 percent in total output.
- Banana is widely grown in the tropical, subtropical, and coastal regions of India.
- Andhra Pradesh is the largest producer in India followed by Gujarat, Tamil Nadu, Maharashtra, Kerala, Uttar Pradesh, Bihar, and Madhya Pradesh.
- All these states contribute more than 70 percent of the country's banana production.
- The country's banana export has been rising sharply because of the adoption of farm practices as per the global standards.
- The majority of banana exports from India are to West Asian and North African countries like UAE, Bahrain, Egypt, Saudi Arabia, Qatar, and Iran.

1.24 National Maritime Heritage Complex(NMHC)

- The Ministry of Culture (MoC) and Ministry of Ports, Shipping and Waterways (MoPSW) signed a Memorandum of Understanding (MoU) for ‘Cooperation in Development of National Maritime Heritage Complex (NMHC) at Lothal, Gujarat’

About Lothal

- It is one of the prominent cities of the Ancient Indus Valley Civilization dating back to 2400 BC.
- The cities to decide that will you theory of the Sabarmati in Gujarat close to the Gulf of Khambhat
- A Dockyard has been found here where boats and ships came in from the sea and through the river.



1.25 ADI PRASHIKSHAN Portal

- Minister of Tribal Affairs launched the ADI PRASHIKSHAN portal.
- ADI PRASHIKSHAN portal is developed by the Ministry of tribal affairs.
- It would act as a Central Repository of all training programs conducted by Tribal Research Institutes (TRIs), different divisions of Ministry, National Society for Education of Tribal Students (NESTS), Centre of Excellence funded by Ministry of Tribal Affairs and National Tribal Research Institute.
- It will catalyze and improve the processes of conducting training by making it online and accessible to all.
- A unified open platform will give users access to authentic knowledge products.

1.26 VivaTech 2021

- Prime Minister delivered the keynote address at the 5th edition of VivaTech 2021. Invited as a Guest of Honour to deliver the keynote address at VivaTech 2021.

What is VivaTech 2021 UPSC perspective ?

- One of the largest digital and startup events in Europe, held in Paris every year since 2016.

- This bring together the best innovation actors to ignite positive change in business and for society and act as a global catalyst for digital transformation and startup growth.
- Partnering with NGOs and not-for-profit organizations to present special initiatives to promote diversity in tech and digital access for all.
- Program tracks dedicated to Tech for the Environment, Tech for Society, Future of Work and Democracy & Ethics zoom in on how technology is helping us to address the most pressing global challenges.
- It remains committed to becoming a carbon-neutral event.

Indian Digital And Startups

- India is home to one of the world's largest start-up eco systems.
- By 2022, India's digital economy is likely to cross \$1 trillion. Several unicorns have come up in the recent years.

Digital India Programmes In India

- The major focus of digital India mission are on digital empowerment of citizens by providing governance and services on demand.
- In order to make citizen digitally literate Pradhan Mantri Gramin Digital Saksharta Abhiyan is introduced.
- Overall 12000 rural post office branches have been linked electronically.
- Common Service Center (CSC) access point created under the National e-Governance Project.
- For digital payments BHIM app can be used
- DigiGaon or Digital Village place where the citizen can avail various e-services.
- Digital locker service operated by the Government of India that enables Indian citizens to store certain official documents on the cloud.
- India's e-commerce market is set to grow three times to surpass USD 100 billion by 2022 as a result of digital penetration in India.

Where India Lags in digitisation ?

- Lack of user education and manpower.
- Cost of smartphones are not affordable by poor.
- Low Budget Industries cannot be able to adopt as they lack funding.
- The internet speed is less as compared to advanced nations.
- Rural regions are still lagging as compared to urban regions.

Start Up Missions in India

- India now has more than 38,000 officially recognised start-ups and is the third-largest tech start-up hub globally.

- Half of the country's population are below the age of 25 years that makes a favourable ecosystem to startup.
- Government of India launched the flagship initiative StartupIndia in 2016.
- As a result of population technically educated people are more than that of advanced countries.

Challenges for Start Up

- For running a startup, a significant amount of working capital is required.
- The diversity in language is seen as an imbalance for advancement.
- The regulatory system is still complicated.
- Job seekers joining startup will leave once they become experienced.

1.27 Changes In Cable Television Network Rules

- The central government issued a notification amending the Cable Television Network Rules, 1994 thereby providing a statutory mechanism for redressal of grievances/complaints of citizens.
- These grievances/complaints are related to content broadcast by television channels in accordance with the provisions of the Cable Television Network Act, 1995.
- About the Notification: The notification issues Cable Television Networks (Amendment) Rules, 2021.
- It provides for a three-level grievance redressal mechanism — self-regulation by broadcasters, self-regulation by the self-regulating bodies of the broadcasters, and oversight by an Inter-Departmental Committee at the level of the Union government.

Significance Cable Television Networks (Amendment) Rules, 2021:

- Various Self-regulatory bodies like News Broadcasters Standards Authority (NBSA) and Broadcasting Content Complaints Council (BCCC) will get legal recognition.
- At present, there is an institutional mechanism by way of an Inter-Ministerial Committee to address grievances of citizens relating to violation of the Programme/Advertising Codes under the Rules.
- Various broadcasters have also developed their internal self-regulatory mechanism for addressing grievances.
- There are over 900 television channels that have been granted permission by the Ministry of Information and Broadcasting (MIB).
- The recent notification is significant as it paves the way for a strong institutional system for redressing grievances while placing accountability and responsibility on the broadcasters and their self-regulating bodies.

- This will bring the television's self-regulatory mechanism at par with that being set up for OTT players and digital news publishers, as envisaged in the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.

1.28 **Flag Satyagraha**

- The Minister of State (IC) for Culture and Tourism has organized to observe the Flag Satyagraha in Jabalpur to commemorate the Jhanda Satyagraha of the year 1923.
- **Flag Satyagraha**
- Flag satyagrahas were one of the most common acts of defiance during the nationalist rebellions led by Gandhi and the Indian National Congress throughout the struggle.
- It is a campaign of peaceful civil disobedience during the Indian independence movement.
- It was against the defiance of laws prohibiting the hoisting of nationalist flags and restricting civil freedoms.
- Flag Satyagrahas were conducted most notably in the city of Jabalpur and Nagpur in 1923 but also in many other parts of India.
- Course of the movement
- The arrest of nationalist protestors demanding the right to hoist the flag caused an outcry across India especially as Gandhi had recently been arrested.
- Nationalist leaders such as Sardar Vallabhbhai Patel, Jammalal Bajaj, Chakravarthi Rajagopalachari, Dr. Rajendra Prasad, and Vinoba Bhave organized the revolt.
- Thousands of people from different regions including as far south as the Princely state of Travancore traveled to Nagpur and other parts of the Central Provinces to participate in civil disobedience.
- In the end, the British negotiated an agreement with Patel and other Congress leaders permitting the protestors to conduct their march unhindered and obtaining the release of all those arrested.

1.29 **Biotech-KISAN Programme**



- The Ministry of Science and Technology has issued a Special Call for the NorthEast Region as a part of its Mission Programme “Biotech-Krishi Innovation Science Application Network (Biotech-KISAN)”.
- It is a scientist-farmer partnership scheme launched in 2017.
- It is a pan-India program, following a hub-and-spoke model and stimulates entrepreneurship and innovation in farmers and empowers women farmers.
- The Biotech-KISAN hubs are expected to fulfil the technology required to generate agriculture and bio-resource related jobs and better livelihood ensuring biotechnological benefits to small and marginal farmers.
- Farmers are also exposed to best global farm management and practices.
- This is a farmer-centric scheme developed by and with farmers under the Department of Biotechnology, Ministry of Science and Technology.
- It was launched for agriculture innovation with an objective to connect science laboratories with the farmers to find out innovative solutions and technologies to be applied at farm level.
- 146 Biotech-KISAN Hubs have been established covering all 15 agroclimatic zones and 110 Aspirational Districts in the country.
- The scheme has benefitted over two lakhs farmers so far by increasing their agriculture output and income. Over 200 entrepreneurs have also been developed in rural areas.
- The present call specifically focuses on the North East Region (NER) as it is predominantly agrarian with 70% of its workforce engaged in agriculture and allied sector for livelihood.
- The region produces merely 1.5 % of the country’s food grain and continues to be a net importer of food grains even for its domestic consumption.
- The NER has untapped potential to enhance the income of the farming population by promotion of location specific crops, horticultural and plantation crops, fisheries and livestock production.
- The Biotech-KISAN Hubs in NER will collaborate with the top scientific institutions across the country as well as State Agricultural Universities (SAUs)/KrishiVigyanKendras (KVKs)/existing state agriculture extension services/system in the NER for demonstrations of technologies and training of farmers.

1.30 Shifting of jurisdiction of a High Court

- The Lakshadweep administration has mooted a proposal to shift its legal jurisdiction from the Kerala High Court to the Karnataka High Court.

Background:

- The proposal was initiated by the administration after several litigations were moved before the Kerala High Court against the decisions taken by the islands' new Administrator Praful Khoda Patel.
- These decisions included revising standard operating procedures for COVID- appropriate behaviour, introduction of the “goonda Act” and demolishing huts of fishermen for widening of roads.

What is the procedure to shift jurisdiction of a High Court?

- The jurisdiction of a High Court can be shifted only through an Act of Parliament.
- Article 241 states that Parliament may by law constitute a high court for a Union Territory or declare any court in any such territory to be a high court for all or any of the purposes of this Constitution.
- Section 4 of the same article mentions that “nothing in this Article derogates from the power of Parliament to extend or exclude the jurisdiction of a high court for a State to, or from, any Union Territory or part thereof”.

Challenges ahead:

- Lakshadweep is under Kerala High Court jurisdiction now.
- Also, Malayalam is the spoken as well as the written language both in Kerala and Lakshadweep.
- Now, shifting of the jurisdiction of the high court will change the entire judicial system of the islands.
- It will break the bond of language.
- Also, the High Court in Kerala is just 400 kms away whereas that of Karnataka is over 1,000 kms with no direct connectivity as well.
- It would also mean extra-burden on the exchequer as all the cases, at present under trial, would have to be heard again afresh.

1.31 The Draft Cinematograph (Amendment) Bill 2021

- The Standing Committee on Information and Technology has conveyed its discontent to the Ministry of Information and Broadcasting on the “super censorship” clause introduced in the draft Cinematograph (Amendment) Bill 2021.

Cause of concern:

- In the draft, there is a provision which allows the government to order recertification for a film already certified by the Central Board of Film Certification (CBFC).
- The government says the clause would only be invoked if the content of a film impinged on security and integrity of the nation.

Key Provisions in the draft bill:

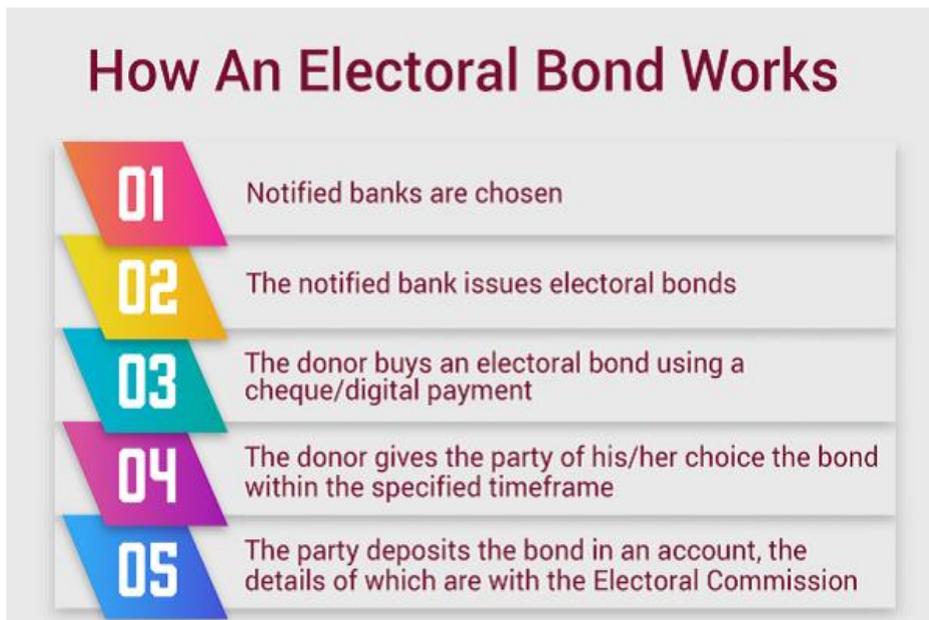
- Age-based certification: It seeks to introduce age-based categorisation and classification. It proposes to divide the existing categories (U, U/A and A) into further age-based groups: U/A 7+, U/A 13+ and U/A 16+.
- Provision against piracy: At present, there are no enabling provisions to check film piracy. Violation shall be punishable with imprisonment and fine.
- Eternal certificate: It proposes to certify films for perpetuity. Currently a certificate issued by the CBFC is valid only for 10 years.

1.32 Electoral Trust Scheme, 2013

- For the first time, an electoral trust (under Electoral Trust Scheme, 2013) has declared donation through electoral bonds and hasn't revealed the names of the political parties that received the money, citing anonymity guaranteed under the electoral bond scheme.
- According to the Association of Democratic Reforms (ADR), this "practice is against the spirit of the Electoral Trusts Scheme, 2013 and the Income Tax Rules, 1962 which make it mandatory for trusts to furnish each and every detail about the donor contributing to the trust.
- If Electoral trusts start adopting this precedent of donating through bonds, it will be a complete situation of unfair practices i.e. total anonymity, unchecked and unlimited funding, free flow of black money circulation, corruption, foreign funding, corporate donations and related conflict of interest etc.

About the Electoral Trust Scheme:

- Electoral Trust is a non-profit organization formed in India for orderly receiving of the contributions from any person.
- Electoral Trusts are relatively new in India and are part of the ever-growing electoral restructurings in the country.
- Electoral Trusts Scheme, 2013 was notified by the Central Board of Direct Taxes (CBDT).
- The provisions related to the electoral trust are under Income-tax Act, 1961 and Income tax rules-1962.
- Objective: It lays down a procedure for grant of approval to an electoral trust which will receive voluntary contributions and distribute the same to the political parties.
- A political party registered under section 29A of the Representation of the People Act, 1951 shall be an eligible political party and an electoral trust shall distribute funds only to the eligible political parties.



1.33 Sant Kabir Das Jayanti

- Kabirdas Jayanti, the birth anniversary of Sant Kabir Das is observed on Jyeshtha Purnimatithi. This year it was on June 24th.

About Kabir:

- Sant Kabir Das was a very renowned saint, poet and social reformer of India who lived during the 15th century. His esteemed works and poems describe the greatness and oneness of the Supreme Being.
- He was a proponent of the Bhakti Movement.
- He did not believe in any religious discrimination and readily accepted all the religions.
- A religious community known as 'Kabir Panth' was founded by him and the members of this forum are referred to as 'Kabir Panthis'.
- Swami Ramananda influence: Kabir Das' ideologies were greatly influenced by Vaishnava saint Swami Ramananda who accepted Kabir as his disciple.

His famous literary works:

- Bijak, Sakhi Granth, Kabir Granthawali and Anurag Sagar.
- His verses are found in Sikhism's scripture Guru Granth Sahib.
- The major part of his work was collected by the fifth Sikh guru, Guru Arjan Dev.
- The hallmark of Sant Kabirdas' work consists of his two line couplets, popularly known as 'Kabir Ke Dohe'.

1.34 Maritime State Development Council (MSDC)

- Union Minister of State (I/C) for Port, Shipping and Waterways Shri Mansukh Mandaviya chaired the 18th meeting of the Maritime State Development Council (MSDC) today through a video conference organized by the Ministry of Ports, Shipping and Waterways.

- MSDC is an apex advisory body for the development of the Maritime sector and aims to ensure integrated development of Major and non-Major Ports.
- The MSDC was constituted in May 1997 to assess in consultation with State Governments, the future development of existing and new Minor Ports by the respective Maritime States either directly or through captive users and private participation.

1.35 **Project Seabird**

- The Project Seabird at the Karwar Naval Base is the country's largest naval infrastructure project which aims at providing fleet support and maintenance of warships. This article aims to discuss in detail about Indian Navy's Project Seabird that is relevant for the IAS exam since it has been in the news recently.

Project Seabird – Why in the News?

- On June 24, 2021, the Union Minister of Defence, Rajnath Singh visited the Karwar Naval Base in Karnataka to review the progress of ongoing infrastructure development under 'Project Seabird'.

What is Project Seabird?

- It is a naval infrastructure project which entails the creation of a naval base at Karwar (Karnataka) on the west coast of India.
- It was approved in 1999 following the Pokhran-II by the then Union Defence Minister George Fernandes.
- It is aimed at providing fleet support and maintenance of warships.
- The first phase of the naval base called Operation Seabird was completed in 2005 and the second phase started in 2011.
- Construction of the naval air station is one of the major highlights of the second phase.
- AECOM – Architecture Engineering Construction Operations and Management will manage and oversee the planning, design, contracting, construction and acceptance of the entire works, including construction of a new Naval Air Station.
- 3,000 feet long runway, docking space for 30 warships, hangars for aircraft are part of this Rs 19,000 crore project spread over 11,000 acres of land.
- Some other featured facilities of the base are:
- The specialised dockyard repair and maintenance facilities (with piers, wharfs, revetments, quay walls, etc.)
- Covered dry berths for ships and submarines
- New technologically advanced security and communication systems
- A Naval Air Station (including multiple runways, hangars, housing, ordnance handling areas, services, personnel support infrastructure, etc.)

- Various utilities systems as well as housing and residential complexes at multiple locations
- The project involves several technical and environmental challenges owing to the partially hilly terrain.

1.36 The Gujarat Prohibition Act, 1949

- The Gujarat Prohibition Act, 1949 is being challenged before the Gujarat High Court, more than seven decades after it came into effect as the Bombay Prohibition Act.
- The Gujarat Prohibition Act, 1949:
 - Introduced by the then Bombay province as Bombay Prohibition Act, 1949 to overhaul the law relating to intoxicating drugs and narcotics total prohibition.
 - It is an Act relating to the promotion and enforcement of alcohol prohibition in the Bombay State.
 - The Bombay state was divided into the states of Maharashtra and Gujarat in 1960.
 - Gujarat adopted the prohibition policy in 1960 and subsequently chose to enforce it with greater rigidity.
 - In 2011, it renamed the Act as Gujarat Prohibition Act.
 - Please note, the first hint at the prohibition of liquor was through the Bombay Abkari Act, 1878. This Act dealt with levying of duties on intoxicants, among other things and aspects of prohibition via amendments made in 1939 and 1947.

Rationale behind this law:

- The State government says that it is “committed to the ideals and principles of Mahatma Gandhi and firmly intends to eradicate the menace of drinking liquor.”

How does the act rule?

- Under the Act, a permit is mandatory to purchase, possess, consume or serve liquor.
- The Act empowers the police to arrest a person for purchasing, consuming or serving alcohol without the permit with punishment ranging from three months to five years in prison.
- What are the main grounds raised against prohibition of liquor and in favour of prohibition?
- The right of privacy is violated, which was given voice by the Supreme Court in 2017 in Puttaswamy judgment. The Right is associated with the citizens’ right to eat and drink as per their choice.
- Ground of manifest arbitrariness: The law grants health permits and temporary permits to out-of-state tourists. The petition says there are no intelligible differences in the classes thus being created by the state on who gets to drink and who does not and violates the Right to Equality under Article 14 of the Constitution.
- The following arguments indicate that such ban was the need of the hour:

- The Constitution places a responsibility on all state governments to “at least contain, if not curtail, consumption of alcohol” (Article 47).
- Strict state regulation is imperative to discourage regular and excessive consumption of alcohol.
- Alcohol denudes family resources and reserves and leaves women and children as its most vulnerable victims. A social stigma at least as far as the family unit is concerned is still attached to the consumption of alcohol.
- Vulnerable persons, either because of age or proclivity towards intoxication or as a feature of peer pressure, more often than not, succumb to this temptation.

1.37 Attorney-General

- The Union government has extended the tenure of Attorney-General K.K. Venugopal by a year. He will continue as the government’s top law officer till June 30, 2022.

Attorney General- Facts:

- The Attorney General for India is the central government’s chief legal advisor, and its primary lawyer in the Supreme Court of India.
- He is a part of the Union Executive.

Appointment and eligibility:

- He is appointed by the President of India under Article 76(1) of the Constitution and holds office during the pleasure of the President.
- He must be a person qualified to be appointed as a Judge of the Supreme Court.
- He should be an Indian Citizen.
- He must have either completed 5 years in High Court of any Indian state as a judge or 10 years in High Court as an advocate.
- He may be an eminent jurist too, in the eye of the President.

Powers and Functions:

- The Attorney General is necessary for giving advice to the Government of India in legal matters referred to him. He also performs other legal duties assigned to him by the President.
- The Attorney General has the right of audience in all Courts in India as well as the right to participate in the proceedings of the Parliament, though not to vote.
- The Attorney General appears on behalf of Government of India in all cases (including suits, appeals and other proceedings) in the Supreme Court in which Government of India is concerned.
- He also represents the Government of India in any reference made by the President to the Supreme Court under Article 143 of the Constitution.
- The Attorney General can accept briefs but cannot appear against the Government.

- He cannot defend an accused in the criminal proceedings and accept the directorship of a company without the permission of the Government.
- The Attorney General is assisted by Solicitor Generals and Additional Solicitor Generals.

1.38 Parliamentary Privileges

- Congress leader Jairam Ramesh, who chairs the Parliamentary Standing Committee on science and technology, has moved a privilege motion against news channel Times Now for “falsified and mischievous” reporting of the proceedings of the panel’s meeting.

What are Parliamentary Privileges?

- Parliamentary Privileges are certain rights and immunities enjoyed by members of Parliament, individually and collectively, so that they can “effectively discharge their functions”.
- Article 105 of the Constitution expressly mentions two privileges, that is, freedom of speech in Parliament and right of publication of its proceedings.
- Apart from the privileges as specified in the Constitution, the Code of Civil Procedure, 1908, provides for freedom from arrest and detention of members under civil process during the continuance of the meeting of the House or of a committee thereof and forty days before its commencement and forty days after its conclusion.

Motion against breaches:

- When any of these rights and immunities are disregarded, the offence is called a breach of privilege and is punishable under law of Parliament.
- A notice is moved in the form of a motion by any member of either House against those being held guilty of breach of privilege.
- Role of the Speaker/Rajya Sabha (RS) Chairperson:
- The Speaker/RS chairperson is the first level of scrutiny of a privilege motion.
- The Speaker/Chair can decide on the privilege motion himself or herself or refer it to the privileges committee of Parliament.
- If the Speaker/Chair gives consent under relevant rules, the member concerned is given an opportunity to make a short statement.

Applicability:

- The Constitution also extends the parliamentary privileges to those persons who are entitled to speak and take part in the proceedings of a House of Parliament or any of its committees. These include the Attorney General of India.
- The parliamentary privileges do not extend to the President who is also an integral part of the Parliament. Article 361 of the Constitution provides for privileges for the President.

2. INTERNATIONAL RELATIONS

2.1 Bhashan char Island

- Several thousand Rohingya recently staged “unruly” protests against living conditions on Bhashan Char- a cyclone-prone island off Bangladesh.

What’s the issue?

- Since December, Bangladesh has shifted 18,000 refugees to the low-lying silt island of Bhashan Char from the mainland Bangladesh, where around 8,50,000 people live in squalid and cramped conditions.

What’s the main concern now?

- Bhasan Char (Floating Island) also known as Char Piya or Thengar Char Island, is an island in Hatiya, Bangladesh.
- The island was formed from a build-up of silt in the Bay of Bengal only 20 years ago, and concerns have been consistently raised about Bhasan Char’s exposure to extreme weather and distance from the mainland in emergencies.

Who are Rohingyas?

- They are an Ethnic group, mostly Muslims. They were not granted full citizenship by Myanmar.
- They are, basically, stateless, Indo-Aryan ethnic group who reside in Rakhine State, Myanmar.
- There were an estimated 1 million Rohingya living in Myanmar before the 2016–17 crisis. An estimated 625,000 refugees from Rakhine, Myanmar, had crossed the border into Bangladesh since August 2017.
- Described by UN Secretary-General Antonio Guterres as “one of, if not the, most discriminated people in the world”.

Protection available to Rohingyas under the International Conventions:

- The 1951 Refugee Convention and its 1967 Protocol:
- They define the term ‘refugee’ and outlines the rights of refugees, as well as the legal obligations of States to protect them.
- The core principle is non-refoulement, which asserts that a refugee should not be returned to a country where they face serious threats to their life or freedom.
- However, the concern now is that Bangladesh is not a signatory to this convention.

International Covenant on Civil and Political Rights (ICCPR):

- Even though the refugees are foreigners in the country of asylum, by virtue of Article 2 of the ICCPR, 1966, they could enjoy the same fundamental rights and freedoms as nationals- the right to equality before the law, equal protection of the law and non-discrimination.

2.2 **China to allow couples to have third child**

- Days after China's census data showed population growth slipping to its slowest rate since the 1950s, the country has announced it will now allow three children per married couple.
- Please note, five years ago in 2016, it first relaxed its controversial one-child policy to two.

Firstly, why was one-child policy implemented?

- China embarked upon its one-child policy in 1980, when the Communist Party was concerned that the country's growing population, which at the time was approaching one billion, would impede economic progress.
- It was enforced through several means, including incentivising families financially to have one child, making contraceptives widely available, and imposing sanctions against those who violated the policy.
- Criticisms associated with this policy:
- Chinese authorities have long hailed the policy as a success, claiming that it helped the country avert severe food and water shortages by preventing up to 40 crore people from being born.

However, the one-child limit was also a source of discontent, as:

- The state used brutal tactics such as forced abortions and sterilisations.
- It violated human rights, and was unfair to poorer Chinese since the richer ones could afford to pay economic sanctions if they violated the policy.
- It gave way for enforcing reproductive limits as a tool for social control.
- It affected the sex ratio- skewed towards males.
- It led to abortion of female fetuses rose and so did the number of girls who were placed in orphanages or abandoned.
- It made China's population age faster than other countries, impacting the country's growth potential.

Why was it discontinued?

- Fears of a rapidly ageing population undermining economic growth forced the ruling Communist Party to allow two children per married couple.
- What necessiated further reforms?
- While the relaxation did result in some improvement in the proportion of young people in the country, the policy change was deemed insufficient in averting an impending demographic crisis.
- **Challenges ahead:**
- Experts say relaxing limits on reproductive rights alone cannot go a long way in averting an unwanted demographic shift.
- The main factors behind fewer children being born are:

- Rising costs of living, education and supporting ageing parents.
- Country's pervasive culture of long working hours.
- Many couples believing that one child is enough, and some expressing no interest in having children.

2.3 China and Central & Eastern European (CEE) 17+1 mechanism

- Lithuania has announced that it would pull out of the China and Central & Eastern European (CEE) 17+1 mechanism.

Details:

- China and Central & Eastern European (CEE) 17+1 mechanism is seen as a pro-China grouping of countries within the EU.
- Lithuanian Ambassador has said that the grouping has not proved beneficial.
- Tensions between China and Lithuania have been building up over a number of issues: Lithuania's new ties with Taiwan, its Parliament's resolution on Uighurs, and then Chinese sanctions on Lithuanian and EU politicians, which led to the EU putting the Comprehensive Agreement on Investment on hold.

2.4 UN Special Rapporteur

- The UN's special rapporteur on human rights in Myanmar has warned of "mass deaths" from starvation and disease in the wake of fighting between rebel groups and junta forces in the east of the country.
- The Special Procedures of the Human Rights Council are independent human rights experts with mandates to report and advise on human rights (civil, cultural, economic, political, and social) from a thematic or country-specific perspective.
- The Human Rights Council is an inter-governmental body within the United Nations system made up of 47 States responsible for the promotion and protection of all human rights around the globe.
- Universal Periodic Review happens under the aegis of the Human Rights Council.
- Current membership of the Council includes India.
- It meets at the UN Office at Geneva (Switzerland).
- Special procedures are either an individual (called "Special Rapporteur" or "Independent Expert") or a working group composed of five members, one from each of the five United Nations regional groupings: Africa, Asia, Latin America and the Caribbean, Eastern Europe and the Western group.
- They are not United Nations staff members and do not receive financial remuneration.
- The independent status of the Special Procedures mandate-holders is crucial for them to be able to fulfil their functions in all impartiality.

- A mandate-holder's tenure in a given function, whether it is a thematic or country mandate, is limited to a maximum of six years.
- Most Special Procedures receive information on specific allegations of human rights violations and send communications (urgent appeals and other letters) to States, and occasionally to non-State actors, asking for clarification and action.

2.5 **UNGA head**

- India has decided to vote in support of Maldives' Foreign Minister Abdulla Shahid in the election of the President of the United Nations General Assembly.
- This time the UNGA head will be chosen from the Asia-Pacific grouping.

Asia- Pacific group of the UN:

- Consists of 53 Member States and is the second largest regional group by number of member states after the African Group.
- Its territory is composed of much of the continents of Asia and Oceania with the exception of a few countries.

About UNGA:

- The General Assembly is the main deliberative, policymaking and representative organ of the UN.
- All 193 Member States of the UN are represented in the General Assembly, making it the only UN body with universal representation.
- The President of the General Assembly is elected each year by assembly to serve a one-year term of office.
- The presidency rotates annually between the five geographic groups: African, Asia-Pacific, Eastern European, Latin American and Caribbean, and Western European and other States.
- How are the decisions taken?
- Decisions on important questions, such as those on peace and security, admission of new members and budgetary matters, require a two-thirds majority of the General Assembly.
- Decisions on other questions are by simple majority.
- The Assembly has no binding votes or veto powers like the UN Security Council.
- According to the Charter of the United Nations, the General Assembly may:
 - Consider and approve the United Nations budget and establish the financial assessments of Member States.
 - Elect the non-permanent members of the Security Council and the members of other United Nations councils and organs and, on the recommendation of the Security Council, appoint the Secretary-General.

- Consider and make recommendations on the general principles of cooperation for maintaining international peace and security, including disarmament.
- Discuss any question relating to international peace and security and, except where a dispute or situation is currently being discussed by the Security Council, make recommendations on it.

2.6 Tulsa Race Massacre

- U.S. President Joe Biden recently became the first sitting American head of state to officially recognise the incident.
- In 1921, from the evening of May 31 until the afternoon of June 1, a violent mob of Tulsa's White residents attacked a prosperous Black neighbourhood, killing hundreds and leaving the locality in ashes.
- The massacre took place in Greenwood, a thriving Black-dominated neighbourhood that had sprung up at the start of the 20th century on the northern side of Tulsa, separated by a railroad track from the city's White-dominated part on the south.
- Known as the "Black Wall Street", Greenwood was a favoured destination for African Americans from the Southern US states— where laws actively upheld racism and disempowered Black people— to come and seek upward mobility.
- The visit by a US president on the occasion is being read as a signal to acknowledge the race massacre, whose history has long been suppressed and left out of national memory.



2.7 Palestine flays India's abstention

- Palestine has expressed concern on India's abstention on a resolution in the United Nations Human Rights Council (UNHRC) to set up a permanent commission to probe abuses in Occupied Palestinian Territory including East Jerusalem and in Israel.

Background:

- India abstained in the voting on the resolution at the UNHRC that came up against the backdrop of the latest round of conflict between Israel and the Gaza strip, the coastal part of the Palestinian territories.
- The resolution was titled “Ensuring respect for international human rights law and humanitarian law in Occupied Palestinian Territory including East Jerusalem and in Israel”.
- The resolution is aimed at securing Israel’s compliance with international human rights.
- India has maintained that a two-state solution to equal sovereign rights is the way forward to resolve the century-old crisis.
- Palestine said that India’s abstention stifles international efforts to protect the human rights of the Palestinian people.
- It said that India missed an opportunity to join the international community at the turning point on the path to justice and peace.
- The resolution was adopted with the vote of 24 members.
- The passing of the resolution led to the setting up of an independent commission of inquiry to investigate the violation of international law by Israel.

2.8 **Eighth Global Nitrogen Conference**

- The 8th International Nitrogen Initiative Conference (INI2020) was scheduled to convene in Berlin, Germany, from 3-7 May 2020. But, due to the pandemic it was cancelled last year and was held recently- virtually.

About the International Nitrogen Initiative Conference:

- Set up in 2003 under sponsorship of the Scientific Committee on Problems of the Environment (SCOPE) and from the International Geosphere-Biosphere Program (IGBP).
- It is a triennial event that brings together scientists from around the world dealing with reactive nitrogen compounds in agriculture, industry, traffic, soil, water, and air.
- Objective: To stimulate an exchange among policymakers and other relevant stakeholders of results, ideas, and visions to improve future holistic management of reactive nitrogen.
- The program is currently a sustained partner of Future Earth.

Nitrogen as an essential nutrient:

- Nitrogen, which is a vital macronutrient for most plants, is the most abundant element in the atmosphere.
- A little over 78% of dry air on Earth is nitrogen. But atmospheric nitrogen, or dinitrogen, is unreactive and cannot be utilised by plants directly.

- Therefore, nitrogen-fixing bacteria like rhizobia live symbiotically with leguminous plants, providing nitrogen to the plant and soil in the form of reactive compounds like ammonia and nitrate.
- How Nitrogen turned into pollutants from nutrients and how it is affecting health and environment?
- Nitrogen compounds running off farmland have led to water pollution problems around the world, while nitrogen emissions from industry, agriculture and vehicles make a big contribution to air pollution.
- Over 80% of the nitrogen in soil is not utilised by humans. While over four-fifths of the nitrogen is used to feed livestock, only about six per cent reaches humans in case of non-vegetarian diet, as compared to the 20% that reaches the plate of a vegetarian.
- Therefore, Nitrogen becomes a pollutant when it escapes into the environment and reacts with other organic compounds. It is either released into the atmosphere, gets dissolved in water sources such as rivers, lakes, or groundwater, or remains in the soil. It creates harmful algal blooms and dead zones in our waterways and oceans; the algae produce toxins which are harmful to human and aquatic organisms (and indirectly affects fisheries and biodiversity in coastal areas).
- Contamination of drinking water: 10 million people in Europe are potentially exposed to drinking water with nitrate concentrations above recommended levels. This can have an adverse effect on human health.
- Food Security: Excessive nitrogen fertiliser application contributes to soil nutrient depletion. As the world needs to feed an ever-growing population, loss of arable land is a major global problem.
- The release of Nitrous Oxide is essentially a greenhouse gas which is harmful to the environment.

2.9 Chemical Weapons Against Syria

- Organization for the Prohibition of Chemical Weapons (OPCW) has told the United Nations Security Council that it investigated 77 allegations against Syria, and concluded in 17 cases chemical weapons were likely or definitely used.
- Syria was pressed to join the chemical weapons convention in 2013 by its close ally Russia after a deadly chemical weapons attack that the West blamed on Damascus.
- In 2014, President Bashar al-Assad's government declared that the destruction of its chemical weapons was completed.
- But Syria's initial declaration to the OPCW has remained in dispute.
- In April 2021, the OPCW suspended Syria's rights until all outstanding issues are resolved.

Organisation For The Prohibition Of Chemical Weapons (OPCW)

- OPCW is an intergovernmental organization and the implementing body for the Chemical Weapons Convention, which entered into force on 29 April 1997.

- **Mandate:** It oversees the global endeavor to permanently and verifiably eliminate chemical weapons.
- **Headquarters:** The Hague, Netherlands.
- **Member states** 193 (All states party to the CWC are automatically members. 4 UN Member States are non-members: Egypt, Israel, North Korea, and South Sudan. Of these Israel signed CWC but didn't ratify it, the rest 3 are non-signatories).
- **Nobel Peace Prize:** The organisation was awarded the 2013 Nobel Peace Prize “for its extensive efforts to eliminate chemical weapons with most recent being in Syria civil war”.
- **The OPCW–The Hague Award:** It is an annual award founded by the OPCW as a result of their being presented with the 2013 Nobel Peace Prize.
- The Award honors individuals and institutions that have significantly contributed towards the goal of a world free of chemical weapons.

2.10 **G7 Corporate Tax deal**

- Advanced economies making up the G7 grouping have reached a “historic” deal on taxing multinational companies. Finance ministers meeting in London agreed to counter tax avoidance through measures to make companies pay in the countries where they do business.
- They also agreed in principle to ratify a global minimum corporate tax rate to counter the possibility of countries undercutting each other to attract investments.

Group of Seven (G7)

- The Group of Seven (G7) is an international intergovernmental economic organization consisting of the seven largest developed economies (International Monetary Fund IMF- advanced economies) in the world.
- G-7 Countries are:
 - Canada,
 - France,
 - Germany,
 - Italy,
 - Japan,
 - The United Kingdom and
 - The United States.
- The European Union is sometimes considered an eighth member of the G-7, since it holds all the rights and responsibilities of full members except to chair or host the meeting.
- G7 Summit is an event conducted annually where world leaders from seven powerful economies of the world come together to discuss burning issues happening around the globe.

- The major purpose of the G-7 is to discuss and deliberate on international economic issues.
- G7 is capable of setting the global agenda because decisions taken by these major economic powers have a real impact. Thus, decisions taken at the G7 are not legally binding, but exert strong political influence.
- It sometimes acts in concert to help resolve other global problems, with a special focus on economic issues.



What are the decisions taken by the G7?

- The first decision that has been ratified is to force multinationals to pay taxes where they operate.
- The second decision in the agreement commits states to a global minimum corporate tax rate of 15% to avoid countries undercutting each other. The agreement will now be discussed in detail at a meeting of G20 financial ministers and central bank governors in July.
- The G7 committed to reaching an equitable solution on the allocation of taxing rights, with market countries awarded taxing rights on at least 20% of profit exceeding a 10% margin for the largest and most profitable multinational enterprises.
- The G7's decision provides for appropriate coordination between the application of the new international tax rules and the removal of all Digital Services Taxes, and other relevant similar measures, on all companies.

2.11 Bitcoin: Legalised by El Salvador

- El Salvador, a small coastal country in Central America became the first in the world to make Bitcoin, a digital currency, legal. The El Salvador Parliament approved the move by a supermajority of 62 out of 84.
- The President added that the use of Bitcoin, whose use will be optional, would not bring risks to users.

- “The government will guarantee the convertibility to the exact value in dollars at the moment of each transaction,” El Salvador President said.
- What were the reasons for EL Salvador taking such decision?
- No impact on Monetary policy: El Salvador has no monetary policy of its own and hence, no local currency to protect. The country was officially ‘dollarized’ in 2001 and runs on the monetary policy of the US Federal Reserve. Thus, it was easier for El Salvador to legalise Bitcoin for it doesn’t impact its monetary policy as much as it would have in case of other countries like India, US, Germany etc.
- To mitigate dependence on US Dollar: The move in El Salvador is in part motivated by loose and expansionary Federal Reserve policy. While banks in the US received liquidity with the stimulus, El Salvador did not but lost purchasing power instead. Thus, EL Salvador wanted a digital currency that cannot be altered by Central Bank (of USA)
- Co-existence with Dollar: President of El Salvador clarified that this does not constitutes “de-dollarization” of the economy. He believes the dollar will continue to remain the dominant currency in the country and Bitcoin would exist side by side.
- Attracting Investments: The overall use of Bitcoin appears less motivated by its use as a currency and much more by the image and investment boost this could give El Salvador towards innovation. This move is being used to portray innovator friendly environment for luring “technology, talent and new ideas” into the country.
- Potential shift in remittances: Remittances make up close to 20% of El Salvador’s GDP with flows approximating \$6 billion annually. President Nayib Bukele has said that this move of legalising bitcoin will help people cut down on middleman payments during remittances.

Challenges

- Talk with IMF: Experts have said the move to Bitcoin could complicate talks with the IMF, where El Salvador is seeking a more than \$1bn programme.
- Impact on Tax collection: The move makes it difficult for the government in raising of tax revenues. Cryptocurrencies are overall a very easy way to avoid taxation and a very easy way to simply avoid the authorities because it’s a completely decentralised system, one can do money laundering and one can do tax avoidance
- Implication on money laundering: With large scale cryptocurrency inflows and outflows, it would be expected that El Salvador would comply with the 2019 FATF guidance on Virtual Currencies which mandates multiple KYC requirements on cryptocurrency activity. It is unclear if these are in place in El Salvador or would be put in place.

Implication on India

- The impact Bitcoin has on these remittance inflows would be worth monitoring for India, which is home to the largest remittance market in the world.
- Although there might not be many lessons from a monetary policy perspective but efficiency, anti money-laundering and other aspects could be closely monitored.
- The overall takeaway for India from the El Salvador case is not in the monetary sense at all but as an example of how far countries are willing to go to attract innovators and entrepreneurs working on this emerging sector.

2.12 Atlantic Charter

- The Atlantic Charter was a statement issued on 14 August 1941 that elaborated American and British goals for the world after the end of World War II
- The Atlantic Charter was in the news recently when on 10 June 2021, a revised version of the original Atlantic Charter was issued between U.S. President Joe Biden and U.K. Prime Minister Boris Johnson in Cornwall, England.
- As per the statement issued by the US government, the new Atlantic Charter was more in line with the ideals of the 21st century, while setting out on fulfilling the commitments and goals of the 1941 charter.

New Atlantic Charter

- The New Atlantic Charter is an agreement that was signed by the Prime Minister of the United Kingdom Boris Johnson and the President of the United States Joe Biden on 10 June 2021.

The charter specifies the following 8 aims:

- To defend the principles and institutions of democracy and open societies
- To strengthen and adapt the institutions, laws and norms that sustain international co-operation
- To remain united behind principles of sovereignty, territorial integrity and peaceful resolution of disputes
- To harness and protect the countries' innovative edge in science and technology
- To affirm the shared responsibility to maintain collective security and international stability, including against cyber threats; and to declare the countries' nuclear deterrents to the defence of NATO
- To continue building an inclusive, fair, climate-friendly, sustainable, rules-based economy.
- To prioritise climate change in all international action
- To commit to continuing to collaborate to strengthen health systems and advance health protections

2.13 China-Sri Lanka Friendship Hospital

- Sri Lankan President Gotabaya Rajapaksa inaugurated the China-Sri Lanka Friendship Hospital in Polonnaruwa.

China's Assistance to Sri Lanka:

- Former President Maithripala Sirisena had requested China for the grant and the facility was built within 30 months.
- The hospital is built with a Chinese grant of \$60 million and is said to be one of the largest in South Asia for nephrology care.
- China's earlier grant projects in Sri Lanka are also built as large public spaces. Eg. Bandaranaike Memorial International Conference Hall in Colombo, Nelum Pokuna Mahinda Rajapaksa Theatre.
- In addition to sanctioning loans and a currency swap facility worth more than \$2 billion since the pandemic struck, China also announced a \$90 million grant to Sri Lanka in October 2020.

India's Concerns:

- India's grant assistance to Sri Lanka totals about \$570 million.
- While the Polonnaruwa hospital has been inaugurated, the Jaffna Cultural Centre, built with Indian assistance of \$11.5 million, whose construction was completed a year ago, awaits inauguration.
- China's rapidly growing presence in the Indian Ocean Region (IOR) and specifically in Sri Lanka is a cause of concern for India.
- While India is not a part of China's Belt and Road Initiative, China considers Sri Lanka to be a critical link in its global infrastructure-building initiative.
- India is concerned as Sri Lanka slips into deeper dependence and loan debt on China.
- Much of the world sees China-funded mega projects in Sri Lanka as debt traps for the island nation.
- In 2017, Sri Lanka leased out a Chinese-built port (Hambantota) located near busy shipping routes to a Chinese company for 99 years to recover from the heavy burden of repaying the Chinese loan the country received to build it.

2.14 NATO Summit

- NATO Summit was held recently in Brussels. It brought together the leaders of all 30 Allied nations.

Outcomes of the meet:

- The heads of the NATO countries said they "remain firmly committed to NATO's founding Washington Treaty, including that an attack against one Ally shall be considered an attack against us all, as enshrined in Article 5."
- It included language about updating Article 5 to include major cyberattacks, which have become a significant and growing concern.

About North Atlantic Treaty Organization:

- It is an intergovernmental military alliance.
- Established by Washington treaty.
- Treaty that was signed on 4 April 1949.
- Headquarters — Brussels, Belgium.
- Headquarters of Allied Command Operations — Mons, Belgium.

Composition:

- Since its founding, the admission of new member states has increased the alliance from the original 12 countries to 30. The most recent member state to be added to NATO was North Macedonia on 27 March 2020.
- NATO membership is open to “any other European State in a position to further the principles of this Treaty and to contribute to the security of the North Atlantic area.”

2.15 Stockholm International Peace Research Institute (SIPRI) Yearbook 2021

- Swedish think-tank Stockholm International Peace Research Institute (SIPRI) released its “Yearbook 2021”, which assesses the current state of armaments, disarmament, and international security.

About:

- The number of nuclear warheads which are ready and deployed to fire have increased globally.
- Russia and the USA together possess over 90 per cent of global nuclear weapons.
- Both have extensive programmes under way to modernise their nuclear warheads, missile and aircraft delivery systems and production facilities.
- China is in the middle of a significant modernisation and expansion of its nuclear weapon inventory.
- India and Pakistan also appear to be expanding their nuclear arsenals.

Highlights:

- The world has nine declared nuclear-armed states —
 - The USA,
 - Russia,
 - the UK,
 - France,
 - China,
 - India,
 - Pakistan,
 - Israel and

- North Korea

- These countries together possess an estimated 13,080 nuclear weapons at the start of 2021.
- This marked a decrease from the 13,400 that SIPRI estimated these states possessed at the beginning of 2020.
- Despite this overall decrease, the estimated number of nuclear weapons currently deployed with operational forces increased to 3,825 from 3,720 last year.
- Around 2,000 of these — nearly all of which belonged to Russia or the USA — were kept in a state of high operational alert.
- The UK and France are the other two who have deployed warheads.
- China, India, and Pakistan are not listed in the report as having “deployed” such weapons with operational forces.
- India possessed an estimated 156 nuclear warheads at the start of 2021 compared to 150 at the start of last year.
- Pakistan had 165 warheads, up from 160 in 2020.
- China’s nuclear arsenal consisted of 350 warheads up from 320 at the start of 2020.
- The raw material for nuclear weapons is fissile material, either highly enriched uranium (HEU) or separated plutonium.
- India and Israel have produced mainly plutonium,
- Pakistan has produced mainly HEU but is increasing its ability to produce plutonium.
- China, France, Russia, the UK and the USA have produced both HEU and plutonium for use in their nuclear weapons.
- Saudi Arabia, India, Egypt, Australia, and China were the five largest importers of major arms in the world between 2016 and 2020.
- Saudi Arabia had 11 percent share and India 9.5 percent in the global imports of the major arms in this time period.

2.16 **FAO Conference**

- Recently, the Union Minister of Agriculture and Farmers’ Welfare addressed the 42nd session of Food and Agriculture Organization’s (FAO) Conference.
- The Conference takes place every two years.
- India is a founder member of the FAO
- The Country Program Framework prepared by FAO India in collaboration with Ministry of Agriculture and Farmers Welfare, Government of India has multi sectoral approach.
- India has been extending technical expertise and assistance in incidences of trans-boundary pests mainly Fall Army Worm and Desert Locust.

- FAO also endorsed the Indian proposal for an International Year of Pulses (2016) and International Year of Millets (2023) .
- India has launched various projects under the National Mission on Sustainable Agriculture to make agriculture resilient to adverse impacts of climate change.
- India is promoting Organic farming at a large scale.

Initiatives during COVID-19 by India

- Indian Agriculture sector registered an all time high production of 305 million tons of food grains during COVID-19.
- KISAN RAIL: Special parcel trains with refrigeration facilities were introduced to transport the essential commodities
- Pradhan Mantri Garib Kalyan Package was launched under which free food grains were provided to 810 million beneficiaries and the scheme has been further extended till November.
- PM Kisan Scheme: More than Rupees 1,37,000Crore have been sent to the bank accounts of over 100 million farmers.

2.17 World Giving Index 2021 Report

- The Charities Aid Foundation (CAF) released the World Giving Index 2021 report. The Charities Aid Foundation (CAF) is a leading international charity registered in the United Kingdom. It was founded in 1974.

World Giving Index (WGI):

- The World Giving Index (WGI) is an annual report published by the Charities Aid Foundation and ranks over 140 countries in the world according to how charitable they are.
- The first edition was released in September 2010.
- The WGI is a global survey, which asks people three questions: In the last month have you...
 - Helped a stranger, or someone you didn't know who needed help?
 - Donated money to a charity?
 - Volunteered your time to an organisation?
- The index measures countries by the proportion of population giving rather than how much they give.

Rankings:

- The most generous country in the world is Indonesia.
- Australia and New Zealand the only high-income countries to remain in this year's Top 10.
- India is 14th most charitable country.
- Scores for India rapidly improved between 2017 and 2019, and this improvement was maintained during 2020.

- The improvement in India is seen across all the age groups and amongst both men and women.
- 61 percent of Indians helped strangers; 34 percent volunteered; 36 per cent donated money.

2.18 **BRICS Network Universities**

- A three-day virtual Conference of BRICS Network Universities on the theme of electric mobility was inaugurated at IIT Bombay.
- This conference is part of the engagements that India is hosting under the education stream during its Chairship of the 13th BRICS Summit this year.
- BRICS Network University is a union of higher education institutions of the five BRICS member countries, formed with the objective of enhancing educational cooperation in general, and especially in the realm of research and innovation.
- IIT Bombay is the lead institution of India for the BRICS Network University.

2.19 **Juneteenth**

- US President Joe Biden is soon expected to sign a law making June 19, or “Juneteenth”, a national holiday recognised by the federal government, commemorating the end of slavery after the American Civil War (1861-65).
- Juneteenth is the portmanteau of June and nineteenth and is recognised as a state holiday in 47 US states.
- The day is the oldest nationally celebrated commemoration of the ending of slavery in the US and is observed on June 19.
- It is also known as Emancipation Day or Juneteenth Independence Day.
- Juneteenth will be the first new federal holiday created in almost four decades, and will now enjoy the same status as the 10 existing annual holidays, which include Memorial Day, Veterans Day and Thanksgiving. The last such holiday – Martin Luther King Jr. Day – was created in 1983, in honour of the civil rights hero.
- On January 1, 1863, then-president Abraham Lincoln issued the Emancipation Proclamation, which declared that “all persons held as slaves” within the states in rebellion “are, and henceforward shall be free.”
- Even so, over 2.5 years after Lincoln’s proclamation, many slave owners continued to hold their slaves captive by hiding this information from them and holding them slaves for one more harvest season.
- On June 19, 1865, Major General Gordon Granger arrived in Galveston, Texas and announced the end of both the Civil War and slavery. Since then, Juneteenth has become a largely symbolic date representing freedom for African Americans.

2.20 International Day of Yoga (21 June)

- The Day will be marked at a time when COVID-19 pandemic continues to upend lives and livelihoods of people globally.
- Beyond its immediate impact on physical health, the COVID-19 pandemic has also exacerbated psychological suffering and mental health problems, including depression and anxiety, as pandemic-related restrictions continue in various forms in many countries.
- This has highlighted the urgent need to address the mental health dimension of the pandemic, in addition to the physical health aspects.
- The message of Yoga in promoting both the physical and mental well-being of humanity has never been more relevant.
- A growing trend of people around the world embracing Yoga to stay healthy and rejuvenated and to fight social isolation and depression has been witnessed during the pandemic.
- Yoga is also playing a significant role in the psycho-social care and rehabilitation of COVID-19 patients in quarantine and isolation. It is particularly helpful in allaying their fears and anxiety.
- The World Health Organization mentions yoga as a means to improve health in its Global action plan on physical activity 2018–2030: more active people for a healthier world.
- UNICEF says kids can practice many yoga poses without any risk and get the same benefits that adults do. These benefits include increased flexibility and fitness, mindfulness and relaxation.

WHAT IS YOGA AND WHY DO WE CELEBRATE IT?

- Yoga is an ancient physical, mental and spiritual practice that originated in India. The word ‘yoga’ derives from Sanskrit and means to join or to unite, symbolizing the union of body and consciousness.
- Today it is practiced in various forms around the world and continues to grow in popularity.
- Recognizing its universal appeal, on 11 December 2014, the United Nations proclaimed 21 June as the International Day of Yoga by resolution 69/131.
- The International Day of Yoga aims to raise awareness worldwide of the many benefits of practicing yoga.
- The draft resolution establishing the International Day of Yoga was proposed by India and endorsed by a record 175 member states.
- The proposal was first introduced by Prime Minister Narendra Modi in his address during the opening of the 69th session of the General Assembly, in which he said: “Yoga is an invaluable gift from our ancient tradition.

SIGNIFICANCE

- Yoga embodies unity of mind and body, thought and action ... a holistic approach [that] is valuable to our health and our well-being.
- Yoga is not just about exercise; it is a way to discover the sense of oneness with yourself, the world and the nature.
- The resolution notes the importance of individuals and populations making healthier choices and following lifestyle patterns that foster good health.
- Yoga cultivates the ways of maintaining a balanced attitude in day-to-day life and endows skill in the performance of one's actions.
- Recognizing this important role of Yoga, this year's commemoration of the International Day of Yoga focuses on "Yoga for well-being" – how the practice of Yoga can promote the holistic health of every individual.
- The United Nations offers yoga resources to its personnel and others on the COVID-19 portal's section on Wellness.

3. INDIAN ECONOMY

3.1 Indemnity from liability

- The Union government is in talks with foreign manufacturers of COVID-19 vaccines on their demand for Indemnity from liability as a condition for selling their vaccines to the country.
- However, this has already given rise to a similar demand from domestic vaccine-maker Serum Institute of India(SII). As they believe, all players should be treated the same way.

What is Indemnity?

- In simple terms, indemnity means security against a loss or other financial stress. This is commonly used in insurance contracts.
- In legal terms, It protects the manufacturers from any potential civil-legal liability or immunity from being sued by people for any unforeseen complications arising from their COVID-19 vaccine.

Is Indemnity defined under the law on Drugs?

- The law on drugs in India does not have a provision for indemnity related to the grant of approval for any new drug or vaccine in the country.

Where is Indemnity defined then?

- Section 124 of the Indian Contract Act, 1872 defines a contract of indemnity. It is defined as a contract by which one party promises to save the other from any loss caused to the latter.
- If the government gives an indemnity to vaccine manufacturers, then the government, and not the vaccine maker, would be liable to compensate any citizen who claims to have side effects/death due to taking the vaccine.
- In the event of a court ordering payment, the company will be in a position to recover the amount from the government.

3.2 Central Board of Direct Taxes (CBDT)

- The Union government has appointed J.B. Mohapatra as the interim chief of the Central Board of Direct Taxes (CBDT) for three months.

About CBDT:

- It is a statutory body established as per the Central Board of Revenue Act, 1963.
- It is India's official financial action task force unit.
- It is administered by the Department of Revenue under the Ministry of Finance.

Functions of CBDT

- It deals with matters related to levying and collecting Direct Taxes.
- Formulation of various policies.
- Supervision of the entire Income Tax Department.
- Suggests legislative changes in Direct Tax Enactments.

- Suggests changes in tax rates .
- Proposes changes in the taxation structure in line with the Government policies.

3.3 **IPO Grey market**

- Paytm's stock has risen from Rs.11,500 to Rs. 21,000 in four days in the grey market.
- This is in response to Paytm's announcement that it will bring an initial public offer (IPO) worth USD 3 billion later this year.

What is an IPO grey market?

- Generally, when companies wish to raise funds to fuel their growth, they sell a part of their stock on the stock market. This process is called an initial public offering, or IPO.
- But, an IPO grey market is an unofficial market where IPO shares or applications are bought and sold before they become available for trading on the stock market.
- It is also termed a parallel market or an over-the-counter market.
- Is it legal? How is it governed?
- Since it's unofficial, inevitably, there are no regulations that govern it. The Securities and Exchange Board of India (SEBI), stock exchanges, and brokers have no part to play in it. These transactions are undertaken in cash on a one-on-one basis.

What is the Kostak rate?

- It relates to an IPO application. So, the rate at which an investor buys an IPO application before the listing is termed the Kostak rate.
- Why do investors trade in the Grey Market?
- It's an excellent opportunity for investors to purchase a company's shares even before they are listed, especially if they feel that the company's stock will increase in value.
- If an investor has missed the deadline for the IPO application or wishes to buy more shares then they can approach the IPO grey market.
- What is in it for the companies?
- For companies, the grey market is a great way to know how the demand for their shares is and how the company's shares might perform once it is listed.
- Apart from that, an IPO grey market could be used to gauge how the company's stock will perform once it is listed.

Concerns:

- The IPO grey market is an unofficial market that performs outside SEBI's purview. Thus, there are no guarantees. All transactions are undertaken on the basis of trust and carry counterparty risk.

3.4 Minimum Support Price (MSP) hiked for Paddy, Pulses and Oilseeds

- In order to encourage crop diversification, the Central Government has hiked the Minimum Support Price (MSP) for Paddy, Pulses and Oilseeds.
- The MSP is the rate at which the government purchases crops from farmers.
- It is based on a calculation of at least one-and-a-half times the cost of production incurred by the farmers.

Crops under MSP

- The Commission for Agricultural Costs & Prices (CACP) recommends MSPs for 22 mandated crops and fair and remunerative price (FRP) for sugarcane.
- CACP is an attached office of the Ministry of Agriculture and Farmers Welfare.
- The mandated crops include 14 crops of the kharif season, 6 rabi crops and 2 other commercial crops.
- The MSPs of toria and de-husked coconut are fixed on the basis of the MSPs of rapeseed/mustard and copra, respectively.

How does CACP fix MSP?

- It takes into account:
- Supply and demand situation for the commodity
- Market price trends (domestic and global)
- Implications for consumers (inflation)
- Environment (soil and water use)
- Terms of trade between agriculture and non-agriculture sectors.

Significance of MSP Hike

- Focus on nutri-rich cereals will incentivise its production in the areas where rice-wheat cannot be grown
- Realigned MSPs in favour of oilseeds, pulses and coarse cereals will encourage farmers to shift production towards these crops.

Issues with Hike

- Modest increase as compared to cultivation costs and inflation
- Absence of assured procurement leading to no incentive to cultivate crops.

3.5 Beed model crop insurance scheme

- Recently, the Maharashtra Government asked the Prime Minister for state-wide implementation of the 'Beed model' of the crop insurance scheme Pradhan Mantri Fasal Bima Yojna (PMFBY).

What is Beed model

- Located in the drought-prone Marathwada region, the district of Beed presents a challenge for any insurance company.
- During the 2020 kharif season, tenders for implementation did not attract any bids. So, the State Agriculture Department decided to tweak the guidelines for the District.
- The state-run Indian Agricultural Insurance Company implemented the scheme.
- Under the new guidelines, the insurance company provided a cover of 110% of the premium collected, with caveats.
- If the compensation exceeded the cover provided, the state government would pay the bridge amount.
- If the compensation was less than the premium collected, the insurance company would keep 20% of the amount as handling charges and reimburse the rest to the state government.
- **Reason for Implementing this Model:**
- Another Source of Fund: In most years, the claims-to-premium ratio is low. In the Beed model, the profit of the insurance company is expected to reduce and the state government would access another source of funds.
- Reduce the Burden of Financing PMFBY: The reimbursed amount can lead to lower budgetary provision for PMFBY by the state for the following year, or help in financing the paying the bridge amount in case of a year of crop loss.

Challenges:

- Questions remain on how the state government is going to raise the excess amount, and how the reimbursed amount would be administered.
- For farmers, this model does not seem to have any direct benefit.
- The chances of the model being implemented for the present Kharif season appear slim.

3.6 Chennai–Kanyakumari Industrial Corridor (CKIC)

- The Asian Development Bank (ADB) and the Centre have signed a \$484 million loan to improve transport connectivity and facilitate industrial development in the Chennai–Kanyakumari Industrial Corridor (CKIC).

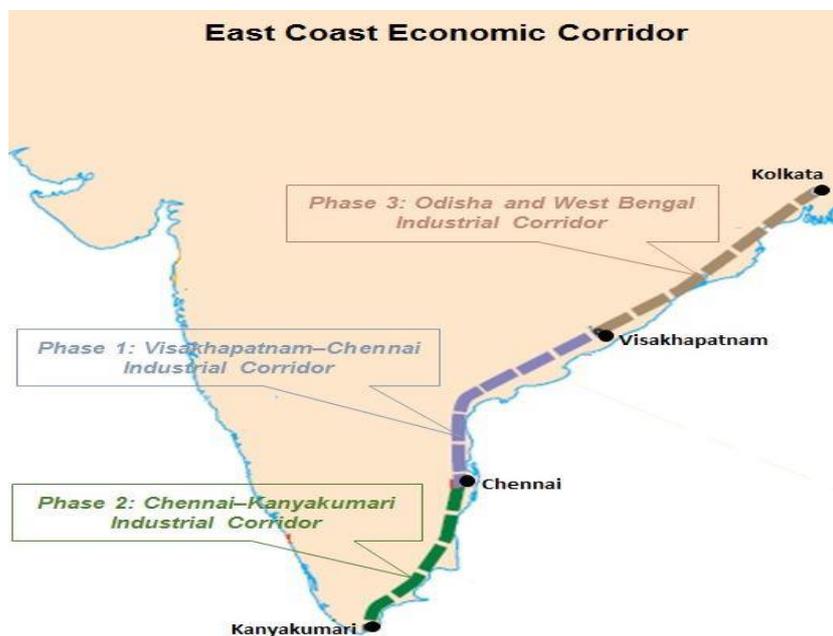
About CKIC

- CKIC is part of India's East Coast Economic Corridor (ECEC), which stretches from West Bengal to Tamil Nadu.
- The project will upgrade about 590 km of state highways in the CKIC influence areas that cover 23 of the 32 districts between Chennai and Kanyakumari in Tamil Nadu.
- It connects India to the production networks of South, Southeast, and East Asia.

- ADB is the lead partner in developing ECEC.

Significance of CKIC

- The project is part of the priority infrastructure projects identified for corridor development under the ADB-supported CKIC comprehensive development plan.
- Enhanced connectivity of industrial hubs with hinterland and ports will particularly help increase the participation of Indian manufacturing in global production networks and global value chains.
- The project will also strengthen road safety improvement programs through advanced technologies for road monitoring and enforcement.
- In addition, the project will help improve the planning capacity of Tamil Nadu's Highways and Minor Ports Department.



3.7 Hallmarking of gold

- The government has announced the phased implementation of mandatory hallmarking of gold jewellery with effect from June 16.

Applicability:

- In the first phase, gold hallmarking will be available in only in 256 districts and jewellers having annual turnover above Rs 40 lakh will come under its purview.

What is hallmarking of gold?

- Hallmarking is the “accurate determination and official recording of the proportionate content of precious metal in precious metal articles.”
- So, it is like a “guarantee of purity or fineness” of precious metal articles.
- The Bureau of Indian Standard (BIS) operates gold and silver hallmarking scheme in India.
- Metals covered under the purview of hallmarking:

- Gold jewellery and gold artefacts.
- Silver jewellery and silver artefacts.

Exceptions:

- Export and re-import of jewellery as per Trade Policy of Government of India — Jewellery for international exhibitions, jewellery for government-approved B2B domestic exhibitions.
- Watches, fountain pens and special types of jewellery such as Kundan, Polki and Jadau.

What was the need of making hallmarking mandatory?

- India is the biggest consumer of gold. However, the level of hallmarked jewellery is very low in the country- only 30% of Indian gold jewellery is hallmarked. Main reason behind this is non-availability of sufficient assaying and hallmarking centres (A&HC).
- The mandatory hallmarking will protect the public against lower caratage and ensure consumers do not get cheated while buying gold ornaments.
- It will also help to get the purity as marked on the ornaments.
- It will bring in transparency and assure the consumers of quality.



3.8 Corporatization Of Ordnance Factory Board

- The Union Cabinet approved a plan to corporatise the Ordnance Factory Board (OFB).

New Structure:

- 41 factories across the country will be dissolved into seven new Defence Public Sector Undertakings (DPSU). The newly created entities will be 100% owned by the government.

- These entities will be responsible for different verticals of the products such as the Ammunition and Explosives group will be engaged in the production of ammunition while a Vehicles group will engage in the production of defence mobility and combat vehicles.
- All OFB employees in the production units will be transferred to the new Corporate entities on a deemed deputation initially for a period of two years without altering their service conditions as central government employees.
- Pension liabilities of the retirees and existing employees will continue to be borne by the government.

OFB:

- It is an umbrella body for the ordnance factories and related institutions and is currently a subordinate office of the Ministry of Defence (MoD).
- The first Indian ordnance factory was set up in the year 1712 by the Dutch Company as a Gun Powder Factory, West Bengal.
- It is a conglomerate of 41 factories, 9 Training Institutes, 3 regional marketing centres and 5 regional controllers of safety.
- Headquarters: Kolkata
- Significance: A major chunk of the weapon, ammunition and supplies for not just armed forces but also paramilitary and police forces comes from the OFB-run factories.
- Production includes Civilian and military-grade arms and ammunition, explosives, propellants and chemicals for missile systems, military vehicles, armoured vehicles, optical devices, parachutes, support equipment, troop clothing and general store items.

3.9 Tax Inspectors Without Borders (TIWB) Programme

- Tax Inspectors without Borders (TIWB) programme has been recently launched.

TIWB Program

- TIWB is a joint initiative of the United Nations Development Programme (UNDP) and the Organization for Economic Cooperation and Development (OECD).
- India was chosen as the Partner Jurisdiction and has provided the Tax Expert for this programme.
- It aims to aid Bhutan in strengthening its tax administration by transferring technical know-how and skills to its tax auditors, and through sharing of best audit practices.
- The focus of the programme will be in the area of International Taxation and Transfer Pricing.
- This programme is another milestone in the continued cooperation between India and Bhutan and India's continued and active support for South-South cooperation.

3.10 **Pradhan Mantri Awas Yojana – Urban (PMAY-U)**

Context:

- The Government approved 708 proposals for construction of 3.61 lakh houses under Pradhan Mantri Awas Yojana – Urban (PMAY-U). With this, as on date, the total number of sanctioned houses under PMAY(U) is now 112.4 of which 48.31 lakh have been completed/delivered.

PMAY- U Awards 2021 - 100 Days Challenge

- In addition, ‘PMAY- U Awards 2021 - 100 Days Challenge’ was also launched by Ministry of Housing & Urban Affairs (MoHUA) .
- The awards are given to recognize and celebrate the outstanding performances by States, Union Territories (UTs), Urban Local Bodies (ULBs) and beneficiaries for successful implementation of the Mission.

Pradhan Mantri Awas Yojana (URBAN)

- Implementation period: The Mission will be implemented during 2015-2022.
- Mission: To achieve the goal of Housing for All in Urban areas by 2022, when the Nation completes 75 years of its Independence.
- Features: Under it, central assistance will be provided to Urban Local Bodies (ULBs) and other implementing agencies through States/UTs for:
 - In-situ Rehabilitation of existing slum dwellers using land as a resource through private participation
 - Credit Linked Subsidy
 - Affordable Housing in Partnership
 - Subsidy for Beneficiary-led individual house construction/enhancement.
- Funding: Credit linked subsidy component will be implemented as a Central Sector Scheme while other three components will be implemented as Centrally Sponsored Scheme (CSS).
- Eligibility: All statutory towns as per Census 2011 and towns notified subsequently would be eligible for coverage under the Mission.

3.11 **National Statistics Day 2021**

- Every year, the Statistics Day is celebrated on 29th June, the birth anniversary of Prof. Prasanta Chandra Mahalanobis, to recognise his invaluable contribution in establishing the National Statistical System.

Aim:

- To popularise the use of statistics in everyday life and sensitise the public as to how statistics help in shaping and framing policies.
- Theme for 2021:

- Sustainable Development Goal (SDG)- 2 (End Hunger, Achieve Food Security and Improved Nutrition and Promote Sustainable Agriculture).
- Winners of Prof. P.C. Mahalanobis National Award in Official Statistics, 2021 and Prof C. R. Rao National Award for Young Statistician, 2021 will be announced
- In 2019, the Ministry of Statistics and Programme Implementation instituted Prof. P C Mahalanobis National Award in official statistics for recognizing outstanding achievement of official statisticians in Central Government, state governments and institutions.
- The Ministry also recognises the outstanding contribution for high-quality research work in the field of applied and theoretical statistics benefitting the official statistical system through the Prof. C R Rao and Prof. P V Sukhatme awards, awarded in alternate years.

3.12 Electronic Weighing Machines at Fair Price Shops

- The Central Government has asked the States Governments to buy electronic weighing machines for ration shops from electronic Point of Sale devices (ePoS) savings.
- For this, the Ministry of Consumer Affairs has amended the Food Security (Assistance To State Government Rules) 2015 to encourage the states to generate savings through judicious use of e-PoS devices.

Benefits:

- The integration of ePoS devices with electronic weighing scales will ensure the right quantity to beneficiaries being covered under the National Food Security Act (NFSA), 2013.
- It will ensure greater transparency in the Public distribution system (PDS) regime.
- It will reduce food grain leakages.
- Subsidised food grains provided to the rightful beneficiary through biometric authentication.

About National Food Security Act (NFSA), 2013

- Objective: To provide for food and nutritional security in the human life cycle approach, by ensuring access to adequate quantities of quality food at affordable prices to people to live a life with dignity.
- Coverage: 75% of the rural population and upto 50% of the urban population for receiving subsidized foodgrains under Targeted Public Distribution System (TPDS).

Eligibility:

- Priority Households to be covered under TPDS, according to guidelines by the State government.
- Households covered under existing Antyodaya Anna Yojana.

Provisions:

- 5 Kgs of foodgrains per person per month at Rs. 3/2/1 per Kg for rice/wheat/coarse grains.

- The existing AAY household will continue to receive 35 Kgs of foodgrains per household per month.
- Meal and maternity benefit of not less than Rs. 6,000 to pregnant women and lactating mothers during pregnancy and six months after the child birth.
- Meals to children upto 14 years of age.
- Food security allowance to beneficiaries in case of non-supply of entitled foodgrains or meals.
- Setting up of grievance redressal mechanisms at the district and state level.

3.13 MoU signed between the Ministry of Agriculture and Microsoft

- Recently, the Ministry of Agriculture has signed a Memorandum of Understanding with Microsoft to run a pilot programme for 100 villages in 6 states.
- The MoU requires Microsoft to create a ‘Unified Farmer Service Interface’ through its cloud computing services.
- It involves creating ‘AgriStack’ on which everything else will be built.

About Agri Stack

- It is a collection of technologies and digital databases that focuses on farmers and the agricultural sector.
- AgriStack will create a unified platform for farmers to provide them end to end services across the agriculture food value chain.
- It is in line with the Centre’s Digital India programme, aimed at providing a broader push to digitise data in India, from land titles to medical records.
- Each farmer will have a unique digital identification (farmers’ ID) that contains personal details,
- Each ID will be linked to the individual’s digital national ID Aadhaar.

Need of the MoU

- At present, the majority of farmers across India are small and marginal farmers with limited access to advanced technologies or formal credit that can help improve output and fetch better prices.

Benefits

- Problems such as inadequate access to credit and information, pest infestation, crop wastage, can be addressed by use of digital technology.
- It will increase innovation and investment towards the agricultural sector.

4. ENVIRONMENT

4.1 UN 'High-Level Dialogue on Desertification, Land degradation and Drought':

- The Prime Minister, Shri Narendra Modi delivered a keynote address at the UN “High-Level Dialogue on Desertification, Land Degradation and Drought” via video conference.
- The Prime Minister spoke at the Opening Segment in his capacity as the President of the 14th Session of the Conference of Parties of United Nations Convention to Combat Desertification (UNCCD).
- Terming land as the fundamental building block for supporting all lives and livelihoods, Shri Modi called for reduction of the tremendous pressure on land and its resources. “Clearly, a lot of work lies ahead of us. But we can do it. We can do it together,” said the Prime Minister.

The Prime Minister listed steps taken by India to deal with the land degradation issue:

1. In last 10 years, around 3 million hectares of forest cover added in India, enhancing the combined forest cover to almost one-fourth of the country's total area: PM.
2. India is on track to achieve its national commitment of Land degradation neutrality: PM.
3. Restoration of 26 million hectares of degraded land aimed by 2030 to achieve an additional carbon sink of 2.5 to 3 billion tonnes of carbon dioxide equivalent.
4. Centre of Excellence is being set up in India to promote a scientific approach towards land degradation issues.
5. In the spirit of South-South cooperation, India is assisting fellow developing countries to develop land restoration strategies.

4.2 After 70 years of being declared extinct, Cheetahs to be reintroduced in India

- Cheetah, the fastest animal on land, will be reintroduced in India nearly 70 years after being declared extinct in 1952. It is believed that the last species of Asiatic cheetah found in India was hunted down by Maharaja Ramanuj Pratap Singh Deo in Koriya, Chattisgarh in 1947.



- According to State Forest Minister, Vijay Shah, African Cheetah from South Africa is expected to be reintroduced in Madhya Pradesh-based Kuno National Park in November 2021. The Wildlife Institute of India (WII) had laid plans for the reintroduction which has also received the nod of the Supreme Court.

Project Cheetah:

- ‘Project Cheetah’ aims at the reintroduction and re-establishment of the population of cheetahs in the country. It involves the identification and restoration of habitat where cheetahs once existed. The purpose of reintroduction of cheetahs, the large carnivores, is to conserve the threatened species and restore ecosystem functions.
- The initial steps to restore the cheetah population started with a meeting of global experts at Gajner in September 2009. According to their study, Kuno Palpur Wildlife Sanctuary was rated high on the priority list for the reintroduction of the cheetah.

About Kuno National Park:

- The KunoPalpur Wildlife Sanctuary is part of the Sheopur-Shivpuri forested landscape. The sanctuary was upgraded into a national park in 2018, and lies within the larger Kuno Wildlife Division which has a total area of 1235 sq. km. The capacity of the protected area was estimated to sustain 27 cheetahs, which could be expanded to over 32 by the introduction of more forest areas to the Kuno Sanctuary.
- A lot of restorative work was already done in the park due to the reintroduction of Asiatic lions here, which would add to the restoration of the cheetah population.
- The project has been allocated Rs 1,400 lakh in the current fiscal year by the National Tiger Conservation Authority (NTCA).

Habitat requirement:

- According to Shah, the process of creating a natural habitat for cheetahs has been started. Cheetah needs a habitat that is natural and has the availability of prey, water source, and open space.
- Prakash Kumar Verma from Kuno National Park told PBNS, that Kuno National Park has the habitat required for cheetahs to flourish. He also informed PBNS that around 8 cheetahs will be brought to the park. Initially, they will be kept in an enclosed area and after they have adjusted well to their new environment, they will be released in the open wild.
- The park has a considerable population of wild boars, four-horned antelopes, chinkara, nilgai, wild boar, sambar, spotted deer, blackbuck, striped hyena, jackals, and more.

Competition for food?

- Among the other cat populations found in the Kuno National Park, leopards can pose a competition to cheetahs in the food chain. However, according to Verma, even though there will be competition between the two species, it will be an indirect one.
- Leopards live in dense bush and wooded koppies while cheetahs live in open savanna. There is a difference in their hunting habits as well. Leopards ambush or stalk their prey, lurk on the trees, pouncing when the prey is close enough. On the other hand, cheetahs stalk prey, and sprint after their prey in grassland.
- Cheetahs feed on antelopes, deer rabbits, wild boars, and other small to medium size ungulates, while leopards feed on baboons, sambar, and other large animals.
- Speaking about tiger and lion, the only tiger the park had, returned to Ranthambore, Rajasthan in November 2020. Meanwhile, the park has no lions.
- Potential difficulty of introducing African species into Indian habitat:
- The Asiatic cheetah, which was found in India is said to be similar to the African species. According to studies, both the species belong to different subspecies but have the same main species of genetics. The study conducted by Stephen J. O'Brien from the Laboratory of Genomic Diversity of National Cancer Institute, United States suggests that the Asiatic cheetah is genetically identical to the African cheetah which separated only 5,000 years ago.
- Moreover, the reintroduction of cheetahs has been done after extensive studies. The Cheetah Conservation Fund, Wildlife Institute of India, Ministry of Environment and Forests, International Union for Conservation of Nature (IUCN), and several NGOs have been extensively involved in the reintroduction plan.

Prior restoration efforts

- The sanctuary was also chosen for the lion reintroduction project in 2013, despite strong objections from Gujarat. Gujarat had claimed that lions were part of its heritage and Madhya Pradesh had a poor record in wildlife management.

Project Tiger success

- India, in the past, has managed well to prevent the population of tigers from going extinct. Under the 'Project Tiger', India expanded from nine tiger reserves in 1973 to 39 tiger reserves in 2010. Moreover, India's tiger population now stands at 2,967 which is 70 % of the global tiger population.
- The Guinness World Records also recognised India's efforts as the world's largest camera trap survey of wildlife.

Future prospects

- As of now, only 8 cheetahs will be introduced to the Kuno National Park, which includes both males and females. The move is to help in the expansion of the population of cheetah. If the plan works well, more cheetahs might also be introduced in the rest of the country.

4.3 World Otters Day: reiterating the imperative role Otters play in maintaining the ecosystem

- World Otter Day is celebrated every year on the last Wednesday of May. Thus, this year it falls on the 26th of May.
- The day is celebrated worldwide to raise awareness about otters and to propagate the need for their conservation so that people around the world are as appalled by otter hunting as they are with tiger hunting.

**International Otter Survival Fund (IOSF):**

- World Otter Day is a result of the efforts and initiatives undertaken by the International Otter Survival Fund (IOSF). In 2009, the day was started as Otterly Mad Week, which became International Otter Awareness Day in 2014. And, by 2016 it evolved as World Otter Day.
- The International Otter Survival Fund (IOSF) is one of the world's leading organizations that works to protect otters so that future generations are not devoid of the sight of the world's most endearing, elusive, and enjoyable mammals.

Know about Otters:

- Otters are endearing mammals with webbed feet, a long tail, and one of the densest furs.
- They are an indispensable part of the riverine and marine ecosystems. There are about 13 different species of Otters, scattered all over the world owing to their adaptable nature. While most Otter species inhabit fresh water, marine otters and the sea otter live and feed exclusively in saltwater.

The Apex predator:

- The otters are considered an ‘apex predator’ and sits at the top of the food chain, thus keeping the population of all animals that follow in check.
- It plays a vital and indispensable role in maintaining and sustaining the wetland ecosystem.

The Indicator species:

- The otters are often referred to as the ‘indicator species’ as scientists could analyze and ascertain the local ecological conditions and get insights into the health of an ecosystem based on the otter population found in that area.

Why is it critical to conserve Otters?

- Otters are a unique species that play a critical role in nature. However, the species is listed in the IUCN Red List, making its existence critically vulnerable.
- Over the years, the species has faced an acute population decline across the world. The threats faced by otters include:
 - The loss of habitat
 - Illegal otter trade & poaching
 - Water Pollution
 - Human-wildlife conflict

Otter warriors:

- Even though the future seems bleak for these appealing creatures, all is not lost yet! Two organizations have been relentlessly working for the cause of otter conservation in India:

1.) Wild Otters, Goa:

- Wild Otters, founded in the year 2018 by Katrina Fernandez, and team operates to deliver on three core verticals: wildlife research, education, and outreach.
- The organization is committed to understanding the ecosystem dynamics and community ecology of otters, in their natural habitats across Goa and Karnataka. The organization also aims to disseminate this information to fill data gaps and create awareness.

2.) Eco Earth Crusaders, Odisha:

- A group of youngsters from Odisha came together in 2018 to do something for the conservation of Otters.
- For this, 5 environmental enthusiasts in their 20s, after seeking permissions from the Principal Chief Conservator of Forests and receiving a grant of Rs 1.35 lakh from the Wildlife Trust of India conducted a six-month long awareness campaign to sensitize locals on the need to conserve the smooth-coated Otters.

4.4 Rare black-bellied coral snake found in Uttarakhand for first time in history

- Black-bellied Coral snake has been discovered in forests of Uttarakhand for the first time in history, by a group of researchers. The snake belongs to the Elapidae family of *Sinomicrurus* genus, namely, *S. nigriventer*.



- The researchers had also found a dead specimen of the same snake on August 11, 2019, in the Nainital Forest Division at an elevation of 1,113 metres. The dead specimen has been preserved in the museum of the Wildlife Institute of India, Dehradun.
- Uttarakhand lies in the Western Himalayas and is home to unique plants and animals.

Know Coral snakes

- Coral snakes are a large group of elapid snakes that are venomous but commonly less involved in envenomation (an act or instance of poisoning by venom). Elapid snakes are fossorial and show solitary behaviour. They usually can be identified by their fangs.
- According to the study, “Black-bellied Coral Snake *Sinomicrurusnigriventer*: An extended distribution in the western Himalaya, India”, published in the Journal of Threatened Taxa, there are currently 107 species of coral snakes belonging to five genera are recognized in the world.
- In India, only seven coral snake species are found. According to a statement by Abhijit Das, one of the researchers, the coral snake was recently rediscovered in Himachal Pradesh, in the Solan District at an elevation of 870 metres.

Coral snake found in Uttarakhand’s forest

- The live black-bellied coral snake was found in the Bhadraj Block of Benog Wildlife Sanctuary (BWS) in Mussoorie Forest Division on September 20, 2020 on way to the Bhadraj temple. The venomous snake is important for medical reasons.
- It was found at an elevation of 1,914 metres. Since, both the specimens- live and dead, were found in the monsoon season, it may suggest some seasonal activity pattern. The study also suggested that

the cool sub-tropical and temperate forests (1,000–2,000 m) with dense grassy slopes are under-explored in terms of reptilian diversity. The study also suggested that the threatened species is expanding its geographical area.

Snakes in India

- According to 2015 report of the Ministry of Health & Family Welfare on the management of snakebite, there are more than 2000 species of snakes in the world. About 300 of these species are found in India, of which 52 are venomous.
- The venomous snakes found in India belong to three families ‘Elapidae’, ‘Viperidae’ and ‘Hydrophidae’ (sea snakes). The most common Indian elapids are *Naja naja* (Indian Cobra) and *Bungarus caeruleus* (Indian Krait), *Daboia russelii* (Russell’s Viper) and *Echis carinatus* (Saw scaled viper). These are also known as the ‘big four’.
- Kraits are active during the night hours, often biting a person sleeping on the floor bed while maximum Viper and Cobra bites occur during the day or early darkness, or while watering the plantation or walking barefoot in the grass or farming lands.
- Further, all snakes are protected by the law. Cobra, Rat snakes, and Checkered keelback are protected in Schedule II of Wildlife (Protection) Act, 1972, and the rest are protected by Schedule IV.

Why are snakes important?

- Although snakes are deadly animals, venomous in nature, however, they use their venom to protect themselves from a suspected enemy or to feed on prey. However, these long, legless creatures are equally important to the ecology. Snakes are important mainly for two reasons, medical and environmental.
- Venomous snakes have medical significance. Snake antivenoms is a mixture made from venom extracted from the ‘big four’ snakes, cobra, krait, Russell’s viper, and the saw-scaled viper. Antivenom is used to treat a person who has been bitten by a snake.
- Antivenoms are based on polyclonal antibodies derived from the plasma of hyperimmunized animals and remain the only specific treatment against animal envenomings.
- On the other hand, snakes are important for the environment too. They are important to farming and to ecology. They not only keep the food web in balance but also use venom to control, kill and digest their prey. Without them, the numbers of prey species would increase to unnatural levels and those animals that eat snakes will struggle to find food.
- Snakes use their highly-developed sense of sight, taste, and touch to locate, recognize and track their prey. Rats are known to damage crops and grains. Snakes are the only predators that can go inside a rat hole and prey on them. They play a significant role in controlling the rodent population.

- Venom is also a weapon for snakes, which they use as a defence mechanism against an aggressive enemy. Once the venom enters the body, it may start affecting or targeting specific organs.

4.5 Coal India forges ahead to offset carbon emission and become energy efficient:

- Coal India Limited (CIL) has laid special thrust on energy efficiency measures and is going ahead with a series of measures to offset the carbon emissions in mining operations in all its coal-producing companies. Apart from taking immediate action for efficient use of energy, CIL has also drawn up an ambitious 5-year plan of carbon offset in various areas of its operations.



Coal India Ltd

- According to the Ministry of Coal, coal companies have several areas to implement energy efficiency measures such as colonies, buildings, offices, industrial establishments etc. apart from efficient power supply management. However, a major reduction in carbon emissions comes from various mining activities such as Heavy Earth Moving Machines (HEMM), Transportation, Ventilation, Pumping etc. With the help of its subsidiaries, CIL has been taking various energy conservation and efficiency measures over the years and is now moving ahead with an emphasis on responsible activities for causing more environmental pollution.

Measures to offset carbon emission

HEMM replaces diesel and LNG

- The Ministry highlighted that the major thrust on diesel consumption with LNG is to replace the vast fleet of HEMM equipment being run by CIL either departmentally or contractually. This will be a breakthrough in not only cutting costs but also reducing carbon emissions.

Monitoring of dumper and engine

- In collaboration with Cummins, the performance of the dumper and engine will be monitored and studied throughout the pilot period. One of the pilot projects at Mahanadi Coalfields Limited's Bharatpur opencast mine in Odisha will be completed by the end of this year. A comprehensive model is being developed to convert most of the heavy vehicles to LNG in the coming years.

1,500 e-vehicles in next five years

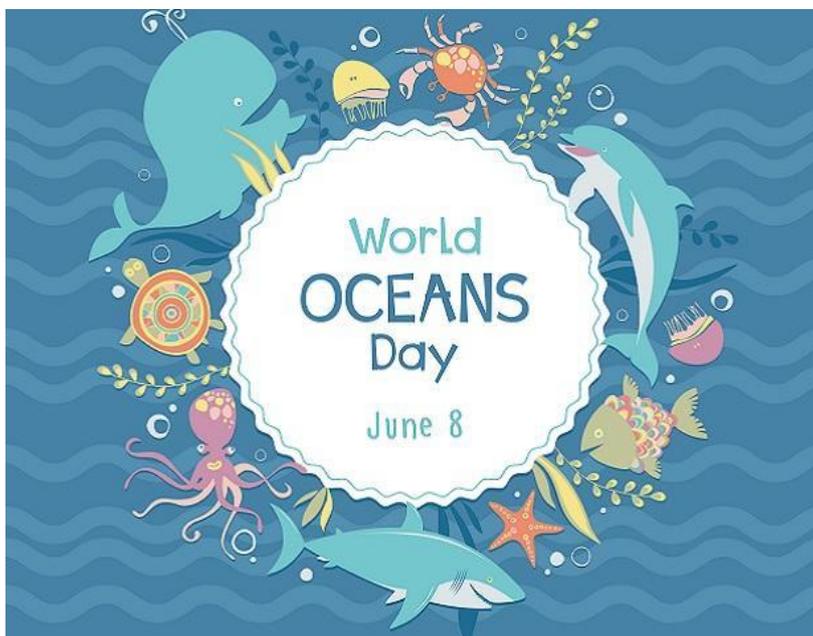
- The introduction of around 1500 e-vehicles across all mining areas of CIL will be another significant growth in the next five years. Around 200 e-vehicles alone will be operational by the end of this year.
- **1,700 energy-efficient motors for mining operations**
- Notably, water pumping in both opencast and underground mines is done on a large scale through orthodox equipment resulting in higher energy consumption. CIL will introduce around 1700 energy-efficient motors for pumps in all its mining operations.

ACs, LED lights, Fans to be replace

- In its various installations, CIL will replace around 5000 conventional ACs and other equipment with energy-efficient star-rated equipment. Similarly, to save energy, about 2.5 lakh LED lights will be installed in place of traditional lights. Over 1 lakh energy efficient super fans will be used in offices by replacing the old ones. To save energy in the colonies, about 2200 street lights will be installed on auto timer.
- On implementation of the above-mentioned energy efficiency measures, CIL envisages creating about 2.5 lakh tonnes of carbon offset in the next five years. With active implementation on all the above fronts, CIL is committed to achieving more than 60,000 tonnes of carbon offset by the end of this year which will be a breakthrough.

4.6 World Oceans Day: Why are Oceans dying an unnatural death?

- World Oceans Day is observed on June 8 every year, to raise awareness among humans on the imperative role that oceans play in sustaining our ecosystems.
- The day calls the world's attention to the dire need to protect oceans from dying an unnatural death due to reckless human activities.



History & significance:

- The day is commemorated, worldwide since 2008, when the United Nations (UN) declared World Oceans Day as an official occasion. Unique & meaningful themes are proposed by the UN, each year to observe World Oceans Day.
- 2021 theme: ‘The Ocean: Life and Livelihoods’
- This year, the theme of world ocean day will focus on the life and livelihood that the ocean ecosystem sustains.
- In consideration of the Covid-19 situation, worldwide, this year, the events and celebrations for world oceans day will be facilitated in a digital mode. The program will focus on the role that the oceans play, within various communities and ecosystems.

Why oceans are essential for human well-being?

- The human species owes all aspects of their well-being and livelihood to the oceans. The oceans play an indispensable role in our lives, not just by providing essential services, but by performing functions critical for the survival of the human species and other marine ecosystems.
 - It regulates the climate, through the energy budget.
 - Maintains the carbon cycle and nutrient cycle.
 - Biodiversity hotspot: The ocean is the home of biodiversity ranging from microbes to marine mammals that form a wide variety of ecosystems in the open pelagic and coastal oceans.

How are the oceans dying an unnatural death?

- The current state of the oceans is not part of a natural phenomenon. It is a result of indiscriminate and mindless human activities.

These activities have significantly affected the pristine state of our oceans and have lead to:

- Ocean warming
- Acidification of the oceans
- Oxygen loss
- Changes in nutrient cycling
- All of this is a result of an influx of carbon emissions caused as a result of human activities. As per the IPCC report, the world oceans have warmed unabated since the year, 2005. And, if the trend continues, it will not take long, until all of the world’s precious oceans are lost. And, once it happens, the life on planet earth will too succumb!

Our oceans becoming dump yards of plastic:

- Every minute, truckloads of plastic is immersed into our oceans! As per a UN report, in a year, 13 million metric tonnes of plastic is dumped into the oceans.
- With the global plastic production expected to skyrocket in the next 10-15 years, the already grim condition is to deteriorate further!
- Indian start-ups to save our oceans:
- “The greatest threat to our planet is the belief that someone else will save it!”- Robert Swan

G-Tech:

- To solve the problem of plastic waste littered in the ocean, six students from the CV Raman College of Engineering, Bhubaneswar came up with an innovative solution.
- They made a sequential float with a smart and flexible driving and monitoring unit. The float is capable of collecting both offshore plastic and spilled oil. The technology can be used for extracting plastic waste from any flowing water body.
- Other innovative start-ups like B-eco, Eco-Buddy and Geeli Mitti are contributing efforts to tackling the problem of single-use plastics with their eco-friendly alternatives.
- The onus of saving our planet lies on us, as it lies on the government and other stake holders. Thus, we must contribute to safeguarding the water bodies that surround our blue planet.

4.7 Indian Railways to become world’s largest green railway network with “net-zero carbon emission”:

- To become the world’s largest green railway network, Indian Railways is now moving towards “net-zero carbon emission” before the year 2030. The national transporter, in a statement on World Environment Day 2021, had stated that the railways is moving towards a complete green restart.



- At a time when the world is reeling from the global problem of environmental degradation and climate change, it is pertinent now, more than ever to aggressively work towards Sustainable Development.
- Building on this crucial idea of “Going Green”, the Indian Railways is looking at helping the environment with steps ranging from massive electrification, water & paper conservation, to saving animals from being injured on Railway tracks, and most importantly - the ambitious goal of achieving “net-zero carbon emission” by 2030.
- From DFCs to Bio-Toilets, the Indian Railways undertook some major steps to move towards sustainable development, such as:
 - The Railways has adopted modern measures such as Head-On-Generation systems, Bio-Toilets and LED lights, automatic coach washing plants, and water conservation.
 - Currently, the Railways is developing Dedicated Freight Corridors (Eastern DFC and Western DFC) in the form of a low carbon green transportation network with a long-term low carbon roadmap. These environment corridors will allow railways to adopt more energy-efficient as well as carbon-friendly processes, practices and technologies.
- Green Restart: Certifications and Protocols
- In a big boost towards Green Certifications and implementation of Environment Management System, the Indian Railways, back in July 2016 signed an MoU with the Confederation of Indian Industry (CII) for the facilitation of Green initiatives on the Indian Railways network.
- In order to harness the extreme potential of Renewable energy, the railways have built solar-powered stations to contribute towards environmental protection.
- Green certifications are allotted to stations that are constructed keeping in mind the sustainable development goals such as, energy conservation measures, use of renewable energy, Green House Gas emission reduction, etc.
- So far, 19 stations have been given Green Certification including three Platinum, six Gold and six Silver ratings.
- Indian Railways has also incorporated Climate Change features in its risk assessments and disaster management protocols.
- Environment Sustainability Report
- The objective of “World’s Largest Green Railways” can be drawn from The Environment Sustainability Report published by Indian Railways each year. The report sets up a framework document defining strategies and focus points in the context of climate change, the issues at stake, and steps for dealing with them.

Minister, Prakash Javadekar said, “Considering the adverse impacts of littered single-use plastic items on both terrestrial and aquatic ecosystems, Hon’ble Prime Minister, Shri Narendra Modi gave a clarion call to phase out single-use plastics by 2022, and the government has taken effective measures to manage plastic waste.” Keeping this in view, several ministries have taken initiatives to achieve the said goal.

Government’s initiative

- According to the Environment Minister, the Government of India has already banned the import of plastic waste in the country.
- Moreover, the Ministry of Environment, Forest, and Climate Change under the Plastic Waste Management Rules, 2016, banned the use of plastic carry bags below 50 microns.
- In addition to this, the Ministry of Environment, Forest, and Climate Change has issued the draft Plastic Waste Management (Amendment) Rules 2021 which proposes a blanket ban on several plastic items.
- “Many states/UTs have also banned identified single-use plastic items. Further, the Ministry has issued a draft notification in March 2021 for amending the Plastic Waste Management Rules, 2016, with respect to prohibiting identified 12 single-use plastic items such as disposable plastic cutlery, etc,” added Prakash Javadekar.
- In September 2019, a blanket ban on all types of single-use plastic products in the Ministry of Consumer Affairs, Food and Public Distribution, and all its PSUs including Food Corporation of India (FCI) was put in place. The Ministry of Railways has also directed all its railway units to enforce a ban on single-use plastic material, with less than 50 microns thickness from October 2, 2019.

Plan of Action:

- i. Awareness generation and behavioral change to adopt eco-friendly alternatives to plastic.
- ii. Regulatory regime for phase-out of identified single-use plastic items under Plastic Waste Management (PWM) Rules, 2016.
- iii. Engagement with central ministries, State Governments, Local Bodies for better enforcement and wider penetration of alternatives to single-use plastic items.
- iv. Engagement with industry and industry associations for assistance and capacity building.
- v. Strengthening of institutional mechanism for enforcement of PWM Rules.

About the campaign

- With the mission to bring about a behavioral change, the ministry launched a two-month awareness generation campaign on plastic waste management and the elimination of identified single-use plastic items.

- The Two-month long awareness campaign, in association with GIZ, UN Environment Programme (UNEP), Federation of Indian Chambers of Commerce and Industry (FICCI), and the Ministry of Environment, Forest and Climate Change, Government of India, will comprise several regional events.

4.9 World Environment day:

- The World Environment Day has been observed on the 5th of June annually to encourage awareness and environmental protection.
- The United Nations Assembly established World Environment Day in 1972, which was the first day of the Stockholm Conference on the human environment.



Theme for 2021:

'Ecosystem Restoration'.

- It will kick off the UN Decade on Ecosystem Restoration (2021-2030) - a global mission to revive billions of hectares, from forests to farmlands, from the top of mountains to the depth of the sea.
- The theme for this year's in India is 'promotion of biofuels for a better environment'.

Host Nation:

- Pakistan will be the global host for 2021.

Ecosystem Restoration:

- Ecosystem restoration means assisting in the recovery of ecosystems that have been degraded or destroyed, as well as conserving the ecosystems that are still intact.
- It involves reviving old water bodies, building natural forests, providing space to wildlife and reducing water pollution to restore aquatic life.
- Healthier ecosystems, with richer biodiversity, yield greater benefits such as more fertile soil, bigger yields of timber and fish, and larger stores of greenhouse gases.

5. SCIENCE & TECHNOLOGY

5.1 Pinaka rocket:

- Defence Research and Development Organisation (DRDO) successfully test fired extended range version of indigenously developed Pinaka rocket from a Multi-Barrel Rocket Launcher (MBRL) on 24th and 25th June 2021 at Integrated Test Range (ITR), Chandipur off the coast of Odisha.
- Twenty-five Enhanced Pinaka Rockets were launched in quick succession against targets at different ranges. All the mission objectives were met during the launches. The enhanced range version of Pinaka Rocket System can destroy targets at distances up to 45 kms.
- The rocket system has been developed jointly by Pune based Armament Research and Development Establishment (ARDE) and High Energy Materials Research Laboratory (HEMRL) with manufacturing support from M/s Economic Explosives Limited, Nagpur. The development of Enhanced Pinaka system was taken up to achieve longer range performance.



5.2 New observations from Chandrayaan-2 unravels the mysteries of the Solar Corona :

- We used to think that life was constrained to a narrow warm band around a star but recent discoveries have shown that there are still potentially life-changing phenomena in our solar system which still remain a mystery. Diving deeper into these mysteries not only reveals the existence of our planet but also allows us to learn about other distant stars better.
- Indian Space Research Organisation (ISRO) recently received outstanding results from an instrument placed aboard the Chandrayaan-2, which was hovering over the moon. The Sun has always been a source of research for astrophysicists across the world. The mystery unravelled, revolves around the hot outer atmosphere of the Sun, known as Corona which emits profusely in ultraviolet and X-ray wavelengths of the electromagnetic spectrum.

- A team of scientists from the Physical Research Laboratory (PRL), Ahmedabad, used observations of the Sun on board the Chandrayaan-2 mission to find abundances of elements like magnesium, aluminium, and silicon and in addition to this, scientists also discovered and characterized around 100 “sub-A class” microflares providing new insight into the coronal heating puzzle.

What is Solar Corona & Coronal Heating?

- The mysterious outer region of the Sun consists of hot and highly diffuse plasma, ionized gas at temperatures that exceed one million Kelvin, much higher than the photospheric temperature of 6,000 Kelvin, the visible surface temperature of the Sun.
- The most mysterious and crucial puzzle related to the sun is its temperature. The ionized gas temperature at the core of the Sun reaches up to 15 million degrees Celsius, which drops to mere 5,700 degrees at the solar surface (photosphere). But the temperature starts to increase again above the photosphere with a height reaching one million degrees or more in the corona. The increase or rise of temperature in Corona despite moving away from the source of energy is against the natural expectation that the temperature should reduce. Scientists have termed this phenomenon as a ‘Coronal Heating Problem’.
- Also, the Sun is a magnetized star and the active regions above the Sunspots have stronger magnetic fields. It is suggested that the magnetic fields play a crucial role in coronal heating. There are different theories governing this mechanism but one of the theories relies on the occurrence of a large number of small solar flares which are known as ‘nanoflares’. Another observation about the corona suggests that certain elements are found to have abundances three to four times higher in active regions than in the photosphere. This happens for elements that are easier to ionize.

ISRO Chandrayaan-2 beams back the mysteries of the Solar Corona

- After landing on the dark side of the moon, the Chandrayaan-2 mission remained active in the form of its orbiter which was hovering over the Moon. Scientists used the Solar X-ray Monitor (XSM), designed and developed by PRL with support from various ISRO centers to study the spectrum of the Sun. The observations were started back in September 2019 during the period when the Sun was at a minimum when typically there were very few Sunspots and active regions on the Sun.
- The solar minimum of 2019-2020 was characterized by an extremely quiet Sun and its activity was at the lowest level over the past century. ISRO stated that this provided a unique opportunity for XSM to observe the quiet corona without active regions for long periods. The scientists during the observation detected a remarkably large number (98) of extremely small flares in the quiet corona. These flares are so small that their intensity is well below the standard scale to classify solar flares and hence these are termed as “sub-A class microflares.”

- This became the first observation and statistical study of such a large sample of microflares in the quiet Sun, supporting the hypothesis of the presence of even smaller scale flares everywhere on the solar corona that could, in turn, lead to coronal heating.
- ISRO stated that since space-borne observations began, this is the lowest intensity of X-ray emission observed from the Sun. The X-ray observations lasted over 76 days, excluding the duration of the microflares, and provided qualitative measurements of abundances of various elements. ISRO also stated that both the Chandrayaan-2 orbiter and the XSM instrument are performing extremely well, and expected to provide many more exciting and new results.

5.3 Agni- Prime:

- Agni-P is a new generation advanced variant of the Agni class. It was recently tested by DRDO at Wheeler island.
- Range: 1000- 2000 Km.



- It is a canisterised missile, Canisterisation of missiles reduces the time required to launch the missile while improving its storage and mobility.
- Many advanced technologies including composites, propulsion systems, innovative guidance and control mechanisms and state-of-the-art navigation systems have been introduced.

Shot in the arm

► Agni-P's range of 1,000–2,000 km is too short to reach targets in China's mainland, but can cover all of Pakistan's territory

► Being a canisterised missile, it can be transported easily and fired at very short notice

► It will replace the Prithvi, Agni-1 and Agni-2 missiles in India's arsenal that were built two decades ago with tech now considered obsolete

► It will enter service as a two-stage, solid propellant missile. Both stages will have composite rocket motors and guidance systems with electro-mechanical actuators

► Agni-P and Agni-5 originate from the Integrated Guided Missile Development Programme launched by then DRDO chief Dr APJ Abdul Kalam in the early 1980s

- The Agni-P missile would further strengthen India's credible deterrence capabilities.
- In comparison to other Agni class missiles, Agni-P has improved parameters including manoeuvring and accuracy.

5.4 **World's first GM Rubber:**

- The world's first genetically modified (GM) rubber plant was planted on the outskirts of Guwahati, Assam.
- It is developed by the Kerala-based Rubber Research Institute of India (RRII).
- The plant has additional copies of gene MnSOD (manganese containing superoxide dismutase) in it and is expected to revolutionize natural rubber production in India.



- It can protect plant cells and can also survive in severe environmental stresses such as cold and drought.
- Natural rubber is a native of warm humid Amazon forests and it is not naturally suited for the cold conditions in this part of the nation.
- RRII has earlier developed two high-yielding hybrid clones of rubber that are adapted to the climatic conditions of the North -East region through breeding and selection. This is the first time any GM crop is developed exclusively for a region.

5.5 **Integrated Theatre Commands:**

- In one of the biggest reorganisation of the Indian Armed Forces since Independence, Chief of Defence Staff (CDS) General Bipin Rawat recently chaired a meeting with the Vice Chiefs of the three Services (Indian Army, Indian Navy and Indian Air Force), Chief of Integrated Defence Staff and representatives from the Ministries of Defence, Home and Finance for the creation of “Integrated Theatre Commands”.

- The idea behind 'Theatre Command System' is to bring synergistic coordination between the three branches of the armed forces.
- Further, it aims at bringing separate Commands for the army, navy, air force under a unified command spearheaded by a single Commander.
- The integration process would ultimately lead towards the unified military assets fused into one single command under one operational head who will be responsible for directing and controlling their activities in a given situation.
- Besides the operational synergies, the theatre command system will also contribute to more streamlined costs and a leaner fighting force. A major chunk of the annual defence budget goes into pensions and salaries while outlays do not always grow in line with the actual needs of the armed forces, the theatre command system will bring greater focus in the allocation of resources and help reduce redundancies.
- Presently, there are two joint services commands in India, the first one is Andaman and Nicobar Command (ANC) and the second, being Strategic Forces Command (SFC).

Andaman and Nicobar Command (ANC):

- ANC is considered to be the only one of its kind in the country that amalgamates the Army, Navy and air force.
- Set up in 2001, ANC is based in Port Blair and is led by Officers of the three Services on a rotation basis.
- The Command covers India's strategic interests in Southeast Asia and the Malacca Strait.

Countries that already follow Theatre Command System:

- Over 32 countries around the globe already have some form of theatre or joint command in place to bring better integration among their military forces.
- Notably, the USA was the first country to enforce a theatre command system with six geographical and four functional commands presently in place. Russia also started with the restructuring of its defence forces in 2008 and has four theatre commands.
- China's theatre command system is said to be based on the US model and has "five peacetime geographical commands". Chinese Western Theatre Command covers the region with Indian border.

5.6 Optogenetics therapy:

- A 58 year old patient suffering with retinitis pigmentosa was treated with a new technique called Optogenetics.
- Optogenetic therapy uses a biological technique that uses light to control the activities of the cell. The therapy uses the combination of 'optics' and 'genetics' to influence neuronal activity.

- It uses genetic modification to make neurons sensitive to certain wavelengths of light.



- An Optogenetic vision restoration is a mutation-independent approach for restoring sight that combines an injection of an Optogenetic virus and light-stimulating goggles. Scientists had previously used it on animals before the clinical trial was launched.
- Scientists chose a protein that is sensitive to amber light and easy on the eyes and used a virus to deliver it to the ganglion cells. They also invented a special device to "transform visual information from the external world into amber light that could be recognized by the ganglion cells."
- During the treatment, the patient could locate 92% of the times the objects kept on the table. The scientists had combined injection with light stimulation, engineered through the goggle that helped the patient to locate the object.

Challenges:

1. Even though optogenetics is a breakthrough in the field of medicine, Jose-Alain Sahel, co-author of the study, says that it will still take some time until the therapy will be offered to patients.
2. Another disadvantage with optogenetics therapy is that since it is a cell-gene-based therapy, the immune system's response cannot be predicted.

5.7 IIT Hyderabad develops Nanotech based oral medicine to treat “Black Fungus”:

- IIT-H had developed nano-fibre based, controlled release oral tablets of amphotericin B (AmB) to treat the fungal infections.
- For mass-scale production, the researchers are confident that the technology can be transferred to suitable pharma partners to take it forward. To ensure the availability and affordability of the drug, the technology developed is made free from Intellectual Property Rights.

- To ensure easy medicare for patients, a 60-mg tablet is priced at a cost of Rs 200 only. The tablet is said to be patient friendly as the drug's slow and sustained release in the body reduces nephrotoxicity, that is, ill impact of medicines and chemicals on the kidney.
- IIT-H has stated that the research is being funded by DSTNanomission, intended to deliver AmB orally at a slow rate within the therapeutic window aggregation in order to lower drug toxicity.
- To satisfy this phenomenon, the team has selected gelatin, an FDA approved polymer as an excipient for drug molecules.
- Amphotericin-B is currently manufactured in the form of an injection by a few pharmaceutical companies. Its use in the treatment of black fungus costs lakhs of rupees; a 50 mg vial cost close to Rs 4,000, and up to 60-100 vials are required for one patient.

Mucormycosis:

- Mucormycosis is listed to be a very rare infection which is caused by exposure to mucor mould which is commonly found in soil, plants, manure, and decaying fruits and vegetables. It can be life-threatening and affects the sinuses, the brain and the lungs. Doctors believe that the fungal infection which has an overall mortality rate of 50%, may be triggered by the use of steroids, a life-saving treatment for severe and critically ill Covid-19 patients.

5.8 Digital India: Empowering citizens amidst pandemic

- Digital India is the instrument of Aatma Nirbhar Bharat- PM Modi.
- Digital India, is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy. It was launched by Prime Minister Narendra Modi in 2015 has come a long way in overcoming the digital divide and has stood the test of the time during the Covid-19 outbreak in the country.
- A paradigm shift has been witnessed in the last few years. From the time people stood in long cues to pay the bills, to the time, when their smartphone has the capability to function on their behalf, India has indeed become digitally empowered. Here are some of the Apps that has aided people in unprecedented times, digitally.

1) AarogyaSetu App

- The Indian government has launched its AarogyaSetu app as an effort to help people during the COVID-19 pandemic. It connects Indian citizens with essential health-related information. The app is developed to fight the ongoing pandemic and help the Department of Health to reach out to more people.

2) AaykarSetu App

- The AaykarSetu App is by the Income Tax department. One can get their tax-related queries resolved in no time with this App. Someone looking to pay tax online or seeking a way to apply for

PAN card, then this app has it all covered. The app also offers features like Tax Gyaan – a game that helps players to learn more about taxation in India.

3) BHIM UPI App

- The National Payments Corporation of India designed this app keeping in mind the concept of digital wallet. One can use this App to transfer money or receive money from one bank account to another. These transactions are not dependent upon the working hours of the bank, hence, enabling one to initiate transactions and receive money anytime. The app can be used to pay money via QR codes as well.

4) ePathshala App

- This App by National Council of Educational Research and Training facilitates learning on the go. It is a mobile learning app that is giving the traditional classroom set-up an upgrade. One gets the access to various textbooks and materials. ePathshala is supported by devices such as mobile phones, tablets, and laptops.

5) DigiLocker App

- As the name suggests, this App acts as a digital locker. One can use it to store all their digital documents. Ministry of Electronics & Information Technology designed this app to minimize the dependence on physical documents. It propagates the idea of paperless governance. The app can be used to issue and verify documents, certificates etc. Just store the digital documents in the app and access them easily via smartphones.

6) Indian Police at Your Call App

- National Informatics Centre's App is designed for the citizen's safety and security. You can use this app to find the nearest police station to your location. It can help you locate routes to nearest police station. It also displays the contact number of the Police Station, District Control Room, and office of Superintendent of Police.

7) GST Rate Finder App

- This app is by Central Board of Excise and Customs that offers a simplified representation of GST-related information. One can use the app to find the applicable GST for specific goods and services.

8) MADAD App

- The MADAD app by MEA caters to a niche audience. It pertains to consular services that are provided by Indian embassies in foreign locations. The app can be used to launch grievances.

9) mPassportSeva App

- This app is by Consular, Passport and Visa (CPV) division of the Indian government's Ministry of External Affairs. It is a part of the Passport Seva Project that helps to provide passport-related services to the general public in a convenient manner. One can find the location of the Passport Seva Kendra, keep track of application status etc.

10) mAadhaar App

- With the help of this app one can store their Aadhaar Card digitally that can be used for verification. One can also update address or order a reprint of Aadhaar card. The app supports multiple languages such as Hindi, Bangla, Kannada, etc.

11) mParivahan App

- National Informatics Centre (NIC) have another app to access information concerning Regional Transport Offices (RTO) and vehicles. This app comes in handy to locate the nearest RTO or the nearest Pollution Checking Centre. One can also avail a mock driving license test using the app

12) PMO India App

- PMO India is an App related to India's Prime Minister's Office. The app is available in 13 languages and can be used to know updates from the PMO. One can get updates about Prime Minister's activity by going through the images of various interactions. This app can also be used to listen to PM's Mann Ki Baat recordings.

13) MyGov App

- MyGov is a platform for citizen engagement. It encourages direct citizen participation by offering an avenue for posting comments related to policies and other initiatives.
- Especially during COVID-19 pandemic, the app is offering a nation-wide and state-wide patient statistics.

14) Digisevak App

- DigiSevak is an online volunteering platform for interested citizens who want to contribute to the cause of India. Various government departments and institutions are creating tasks. One can volunteer for the tasks based on their skills and interest .

15) UMANG App

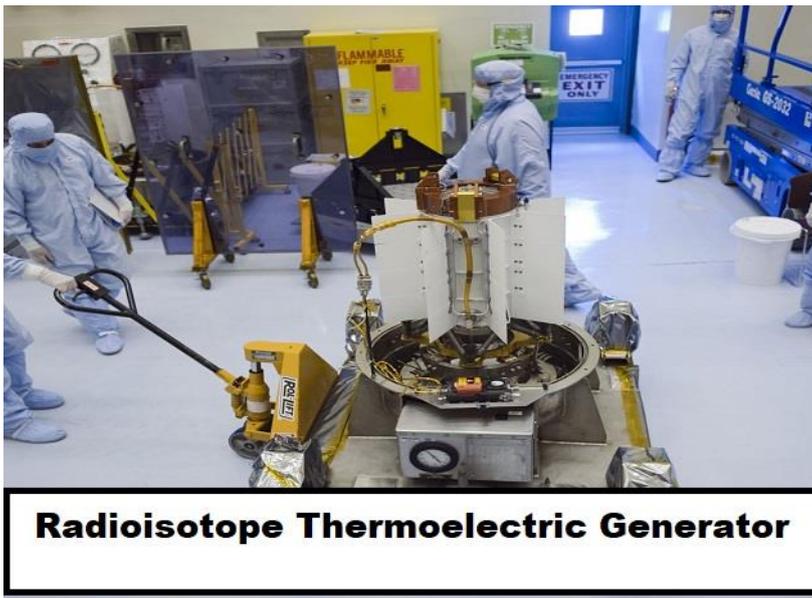
- or Unified Mobile Application for New-age Governance. This app brings different government services under one umbrella. The Ministry of Electronics and Information Technology along with the National e-Governance Division has brought one-stop designation app for people who donot want to install multiple governance-related apps for different services, just this one should suffice.
- Apart from these India has developed many apps like IRCTC Rail Connect app that enables booking train tickets online, KisanSuvudha App for framers, Swacch Bharat Abhiyaan app, M-Kavach which is a comprehensive mobile device security solution and many more.
- These Apps are not only bridging the gap between rural and urban citizens but also digitally empowering the Indian citizens amidst the Covid-19 lockdown.

5.9 **138 Indian stolen art on search radar of Interpol's ID-Art App**

- Prevention of illicit trade in antiquities has emerged as a crucial area of collaboration. Reacting swiftly to the situation, the International Criminal Police Organization, INTERPOL, earlier this month launched a mobile application that can help in retrieving stolen works and artifacts. The International Police Organization also emphasized safeguarding the cultural heritage, as it highlights the cultural history of the nations.
- ‘ID-Art’ app launched by Interpol will help identify stolen cultural properties, reduce illegal trafficking and increase the chances of retrieving stolen works or artifacts. The app gives the users, mobile access to the INTERPOL’S stolen works of art database holding authentic police data on stolen and missing art objects.
- Using cutting-edge image-recognition software, ID-Art, allows users to search about the stolen object by uploading a picture. The data can be accessed manually also.
- The app also enables users in creating an inventory of private art collections and report cultural sites potentially at risk. According to Interpol, the app allows those on the frontlines of protecting heritage to document the state of heritage sites, including historical monuments and archaeological sites. The generated data can be later used as evidence or basis for reconstruction if ever the site is looted or destroyed.
- “This new tool is a significant step forward in enhancing the ability of police officers, cultural heritage professionals, and the general public to protect our common heritage,” said INTERPOL Secretary General Jürgen Stock.
- As per the data available around 138 stolen or lost antiquities from India have been listed on the application. From the sculptures like goddess Durga in a meditation pose presumably from 9th - 10th century A.D. to Garuda seated on a lotus pedestal dating back to 12th century A.D., or the 10th century stolen Goddesses Yamuna and Ganga idol stand in the list of INTERPOL’S 52,000 stolen items from across the world.
- With the help of ‘ID-Art’, recently Italy successfully managed to retrieve its two stolen statues. In addition, authorities in the Netherlands recovered two stolen paintings after the Dutch Art Crime Unit identified the paintings with the help of the app.
- Also, India has ramped up its efforts for the early repatriation of its stolen antiquities from foreign soil. Earlier this year, the Union Minister for Culture and Tourism Pralhad Singh Patel in a reply to Parliament said that during the last five years, 36 antiquities have been retrieved from various foreign countries.

5.10 **ISRO to use nuclear energy for deep space missions:**

- Indian Space Research Organisation (ISRO) is developing a Radioisotope Thermoelectric Generator (RTG) to embark on a monumental journey of exploring remote and challenging environments of the deep space universe
- ISRO's leading centre for the design and development of all satellites, UR Rao Satellite Centre (URSC) is in process of making a threephased 100 Watt Radioisotope Thermoelectric Generator (RTG).
- The centre envisions the use of RTG technology for power generation and thermal management of ISRO's deep space missions.



- ISRO plans to set up a space station, along with various missions in the pipeline such as the first Indian human space flight mission, Gaganyaan; the first Indian solar observatory, Aditya L-1; the second Indian space telescope XPoSat; Mangalyaan-2 to Mars; Chandrayaan-3 as a reattempt to land on the Moon; and the Venus orbiter mission Shukrayaan. The RTG technology will come in handy in these deep space missions.

What is Radioisotope Thermo-electric Generator (RTG)

- Radioisotope Thermoelectric Generator (RTG) is a type of nuclearpowered battery that uses an array of thermocouples to convert the heat released by the decay of suitable radioactive material into electricity. The generators are governed by the "Seebeck effect" and it generally has no movable parts. Seebeck effect is a phenomenon in which a temperature difference between two dissimilar electrical conductors or semiconductors produces an electromotive force (electricity). RTGs are highly reliable and maintenance-free because there are no moving parts in thermocouples, which reduces the chances of failure and wear out.

5.11 ViraGen:

- ViraGen is Cipla's third Covid-19 testing kit to the nation as in the past it has partnerships for antibody detection kits and antigen test kits. 'CIPtest', a rapid antigen test kit was launched in December last year.
- 'ViraGen', the real-time detection kit has been approved by ICMR (Indian Council of Medical Research) and it is based on multiplex PCR technology.

ViraGen: Identifying & Detecting SARS CoV-2 N Gene

- ViraGen is based on multiplex PCR technology which helps in detecting and identifying SARS-COV-2 Gene, the virus behind Covid-19. "It helps to identify and detect SARS CoV-2 N Gene and ORF Lab Gene with the sensitivity of 98.6% and the specificity of 98.8% as compared to a standard ICMR test," according to Cipla. The RT-PCR test kit is used for the qualitative detection of Covid-19, is manufactured in partnership with Ubio Biotechnology Systems.

Understanding Multiplex Polymerase Chain Reaction principles

- Multiplex PCR is the simultaneous detection of multiple targets in a single reaction; where two or more primer sets are designed for amplification of different targets. Using this technique, more than one target sequence in a clinical specimen can be amplified in a single tube.
- As an extension to the practical use of PCR, this technique can save time and effort. There are various medical terms used in the pandemic, the RT-PCR test is the most prominent word. During the RT-PCR test, RNA is extracted from the swab collected from the patient which is converted into DNA, which is then amplified. Amplification simply refers to the process of creating multiple copies of the genetic material, which in this case is, DNA. This improves the capacity of the test to detect the presence of viruses or infections.
- Indian Army to deploy advanced Israeli Heron drones in Ladakh along the LAC:
- In a major boost to the strategic surveillance capabilities, the Indian Army will deploy four Israeli Heron TP drones along the Line of Actual Control (LAC) in the Ladakh sector for long surveillance missions.
- The Heron TP unmanned aerial vehicles (UAVs) will be handed over to the Indian Army in the next 2-3 months under the lease agreement signed with Israel for the deployment in the Eastern Ladakh and other sectors.

Understanding Heron TP drones

- The Heron TP drone comes with a double wingspan, which has been developed by Israel Aerospace Industries (IAI). It is a Medium Altitude Long Endurance (MALE) Unmanned Aerial System (UAS) for all-weather strategic missions. The armed Heron TP drones are an upgraded version of the original Heron UAVs and their anti-jamming capability is much better than their previous versions.

- With their long-range radars and sensors, anti-jamming capability and the ability to reach an altitude of 35,000-feet, the Heron drones will be able to gather all kinds of intelligence across the LAC without even flying close to it.
- The Heron TP has a scale size of AN-32 aircraft due to its large wingspan. The drones can carry a maximum take-off weight of 5,670 kg, with a maximum payload weight of 2,700 kg. With an endurance of 30 hours, the drone has a range of over 1,000 kilometres. Further, it is equipped with automatic taxi-takeoff and landing (ATOL), satellite communication for range enhancement, and fully redundant avionics, among other highlights.

About the agreement

- The agreement with Israel was inked under the emergency financial powers granted by Prime Minister Narendra Modi-led union government to the Indian Defence Forces. Under the grant, the defence forces can buy equipment and systems worth Rs 500 crores to upgrade their warfighting capabilities.
- This is for the first time, Indian Army has leased military equipment, after a clause that was introduced in the latest version of the Defence Acquisition Procedure. Earlier, the Indian Navy had leased two non-weaponised General Atomics Aeronautical Systems MQ-9B Sea Guardian MALE UAVs from the United States under acquisition policy.
- The Indian Air Force and Indian Army use a mix of previous generation Searcher 2 and Heron drones. Meanwhile, the armed forces along with Israel are upgrading the 90 previous generation Herons drones in service, and also weaponise them. Nearly 75 of 90 Herons are operated by the Indian Air Force.

5.12 100 Indian Armed Forces personnel to get cyber security training in US:

- Taking proactive steps to combat cyber threats, the Department of Military Affairs (DMA) will send 100 Indian Armed forces personnel to the United States to equip them with the latest cybersecurity technology and artificial intelligence (AI) for future warfare.
- As per the 2016 US Cyber Framework and defence cooperation agreement, 100 Indian military personnel will be trained with first-hand experience on how to tackle cyber warfare and AI role in future defence and warfare in Silicon Valley, California.
- Meanwhile, a proper cyber command in the hinterlands of Madhya Pradesh has been under approval by the government to provide a fighting edge to the proposed theatre commands. The proposed cyber command will give the individual capabilities of all the armed forces to counter the military.
- Presently, the Indian Armed Forces have a tri-service defence cyber agency under the integrated headquarters. Further, the charter of the command will also ensure that military communications are

secure without any malware by adversaries in the forward formations like Northern Command, Siliguri Corps, and Tezpur Corps along with the Ladakh Corps.

- With the increasing involvement of AI, cyber warfare, armed drones and standalone weapon systems in warfare, the cyber military command has been preparing for a future where war shifts seamlessly from missile to cyberattacks.

5.13 Defence Ministry clears Indian Navy's proposal to issue tenders for 6 submarines:

- The Defence Acquisition Council (DAC), on June 4 approved proposals concerning capital acquisitions of various equipment for the modernisation and operational needs of the Armed Forces amounting to approximately Rs 6,000 crore. The meeting was chaired by Defence Minister, Rajnath Singh.
- In addition, the DAC also approved the issue of Request For Proposal (RFP) for the construction of six conventional Submarines under Project P-75 (I) under the Strategic Partnership (SP) Model.

Self-reliant India

- Project 75 (I) envisages the indigenous construction of six conventional submarines equipped with the state-of-the-art 'Air Independent Propulsion system' at an estimated cost of Rs 43,000 crore.
- One of the largest 'Make in India' projects, it will serve to facilitate faster and more significant absorption of technology and create a tiered industrial ecosystem for submarine construction in India.
- From a strategic perspective, the project will also help in reducing the current dependence on imports and gradually ensure greater self-reliance and dependability of supplies from indigenous sources.
- "With accord of this approval, India will be enabled to achieve its 30 year Submarine construction programme envisioned by the Government to acquire national competence in submarine construction and for the Indian industry to independently design and construct submarines in India," Rajnath Singh said in a tweet.
- This decision of the government will also help in creating direct and indirect job opportunities in India. Availability of technology, advanced manufacturing capabilities will provide a unique long-term opportunity and planning certainty for the industry to invest and support submarine construction.

Project-75 (I)

- The DAC accorded approval of procurement of Air Defence Guns and Ammunition at an approx. cost of Rs 6,000 crore under the Buy & Make (Indian) category.
- Further to better equip the Armed Forces to meet the operational challenges and facilitate faster induction of required arms and ammunition, the DAC extended the timelines for progressing urgent

Capital Acquisitions under the delegated powers to the armed forces up to August 31, 2021. This will enable the Armed Forces to complete their emergent and critical acquisitions.

- Last year, on January 21, DAC had selected two domestic shipyard companies, Mazagon Dock Shipbuilders Ltd (MDL) and private sector firm Larsen & Toubro (L&T), as strategic partners for the Project- 75 programme.
- L&T and MDL, under the project, can collaborate with global manufacturers which would boost the indigenous design and construction capability of submarines in India. Moreover, this will also introduce the latest submarine design and technologies as part of the project through strategic tie-up between Indian Industry and leading foreign OEMs.
- The Indian Navy has two major projects under the strategic partnership policy which helped develop the indigenous private sector in defence as major producers.

5.14 DBT supported the first CAR-T cell therapy conducted at ACTREC, Tata Hospital in Mumbai:

- CAR-T (chimeric antigen receptor T-cell) therapy has emerged as a breakthrough in cancer treatment. Clinical trials conducted globally have yielded promising results in end-stage patients, especially in those patients who are suffering from Acute Lymphocytic Leukemia. Though this technology has a remarkable therapeutic potential for cancer patients, at present this technology is unavailable in India. Each patient's CAR-T cell therapy costs 3-4 crore (INR). The challenge, therefore, is to develop this technology in a cost-effective manner and make it available for the patients.
- The expense of treatment is mostly due to the manufacturing complexity. In the last two years, the Biotechnology Industry Research Assistance Council(BIRAC) and the Department of Biotechnology (DBT) have taken various measures and launched specialized calls to promote and assist the development of CAR-T cell technology against cancer and other diseases.
- The first CAR-T cell treatment (a type of gene therapy) was performed in the Bone Marrow Transplant unit at Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Center in Mumbai on June 4, 2021, making it a momentous day for TMH, IIT Bombay, and Cancer care in India. IIT Bombay's Bioscience and Bioengineering (BSBE) department has designed and developed CAR-T cells.
- This is a "first in India" gene therapy in early phase pilot clinical trial due to the dedicated efforts and excellent collaboration between IIT Bombay and Tata Memorial Hospital, Mumbai. The central government's National Biopharma Mission-BIRAC has approved 19.15 Cr crore to the team for conducting a first-in-human phase-1/2 clinical trial of the CAR-T cells.
- The clinical trials are being done by Dr (Surg Cdr) Gaurav Narula, Professor of Paediatric Oncology and Health Sciences, and his team from TMC, Mumbai, and the novel CAR-T cells that will act as drugs that were manufactured by Prof Rahul Purwar, Bioscience and Bioengineering

(BSBE) department and his team at IIT Bombay. The design, development, and extensive pre-clinical testing were carried out by IIT-Bombay as a collaborative project with Tata Memorial Center, Mumbai.

- Subhasis Chaudhuri, the director of IIT-B, described the achievement as important for both the institute and the country. “We at IIT-B are delighted that our scientists along with Tata Memorial Hospital have come out with the most sophisticated therapy in cancer treatment. If the trials are successful, it may save millions of lives by making the treatment available in India at an affordable cost. It is a research of IIT-B that is expected to touch the lives of all.”
- The National Biopharma Mission is also assisting two other organizations with the development of a lentiviral vector manufacturing facility for packaging plasmids used to transfer the modified T cell inside the body, as well as a cGMP facility for T-cell transduction and expansion for CAR T-cell manufacturing. CAR-T cell technology is being developed for illnesses such as acute lymphocytic leukemia and multiple myeloma, glioblastoma, hepatocellular carcinoma, and type-2 diabetes.

About DBT

- Under the Ministry of Science and Technology, the Department of Biotechnology (DBT) supports and accelerates the development of biotechnology in India, including its growth and use in agriculture, healthcare, animal sciences, environment, and industry.

About BIRAC

- The Biotechnology Industry Research Assistance Council (BIRAC) is a non-profit Section 8, Schedule B, public sector enterprise established by the Department of Biotechnology (DBT) of the Government of India as an interface agency to strengthen and empower the emerging biotech enterprise to conduct strategic research and innovation to address relevant product development needs.

5.15 India’s GI tagged mangoes rule the world:

- India has begun the export of sixteen varieties of mangoes, including three GI-certified varieties from India’s eastern region to Bahrain, starting from June 8.
- India is a net exporter of agricultural products worldwide with a high share of primary commodity exports like tea, rice, bovine meat, sugar, spices, etc.
- The demand for India’s exclusive GI-tagged fruits and vegetables worldwide has further accelerated agricultural exports and provided a much-needed boost to India’s forex reserves.

What is a GI tag?

- Geographical Indication (GI) tag is proof of where the product has originated or produced. This product can be natural, agricultural or manufactured. The use of GI, as an indication of the

product's origin, acts as a certification that the product has exclusive qualities, is made/produced according to traditional methods, or has a good reputation due to its geographical origin.

- Some of the examples of popular Indian products that have GI-tag are Basmati Rice, Mysore silk, Madhubani paintings, Jaipur Blue pottery, Goan Feni, Hyderabad Haleem, Naga Mircha, Nagpur orange, Meerut Scissors, Alphonso, Konark Stone carving, Machilipatnam Kalamkari, Kota Doria, Phulkari, Sikkim Large Cardamom, Makrana Marble, Vengurla Cashew, Pethapur Printing Blocks, and many other.
- **India houses 1500 varieties of the ‘king of fruit’:**
- Mango is rightly postulated as the ‘king of fruit’ for its distinctive taste and manifold health benefits. India houses about 1500 varieties of mango, each unique in its taste, color, and shape.
- These different species of mangoes are found in different corners of the country, mostly in the summer months starting from April to August.

Which are the 16 varieties of mangoes that are exported to Bahrain?

- The 16 species of mangoes that are exported to Bahrain include three GI tagged varieties: Khirsapati, Lakshmanbhog from West Bengal, and Zardalu from Bihar.
- The other famous varieties of mangoes include Alphonso, Sindhura, Totapuri, Hapus, Ratnagiri, Chausa, Raspuri, Pairi, Himsagar, Neelam, Malkova, Malda, Langra, Kesar, Badami, etc.

What is so special about India’s GI-tagged mangoes?

- Khaas-e-aam: It is astonishing how a fruit as special as mango can be called ‘aam’. The fruit has the ability to bring a goofy smile to the face of people belonging to every age group. Its sweet-sour taste is irresistible for not just Indian, but foreign taste buds.

Khirsapati aam:

- The Khirsapati aam, found abundantly in the eastern state of West Bengal and in parts of Bangladesh is highly popularised in India and abroad for its yellow-orange color and distinct taste.
- It is widely considered as the ‘Champagne of mangoes’. Another specialty of this species is that it does not have any fiber. The medium-sized fruit weighs between 250-350 grams, with 77% pulp content. The variety has a good keeping quality. It is also known as Himsagar.

Laxmanbhog aam:

- This variety of mango is also exclusively cultivated in West Bengal. Known for its splendid taste and appearance, it is considered a viable alternative to the famous Alphonso mango.

Zardalu aam:

- The Zardalu aam received the GI tag on 28th March 2018 for its creamy texture, natural bright yellow colour and an enticing aroma. Though the variety is the specialty of Bhagalpur and adjoining districts of Bihar, it is also found in Chennai.

- As per legend, the Bhagalpuri Zardalu mango was cultivated for the first time in this region by Maharaja Rahmat Ali Khan Bahadur of Khadakpur.

What is APEDA & how it contributes to promoting mango exports in S.Korea & Germany?

- The Agricultural & Processed Food Products Export Development Authority (APEDA) was established by the Government of India in December 1985 for the export promotion and development of selected agricultural products.
- Recently, APEDA organized many virtual buyer-seller meets for the promotion of selected agricultural products. It also organized a mango festival in Berlin, Germany & played a pivotal role as the registered exporter under the Government of India.
- Further, with the efforts of APEDA and IFFCO, 66 MTs of mangoes are to be supplied to South Korea within this season.

The wish-granting tree:

- Mango is a blessing upon humanity, and indeed, India's treasured gift to the entire world. It is inextricably tied to India, as the olive tree is tied to Greece or the grapevine to Italy. Mango has been a pivotal part of India's rich history, culture, diet, and life for at least the last 4,000 years.
- As per legend, it is known to have delighted Alexander the Great in 326 BC. Also, one of India's most celebrated Mughal emperors, Akbar, is said to have had an orchard with 100,000 mango trees.
- In the words of the legendary Urdu poet, Mirza Ghalib, in the praise of mangoes, "even the sweetest of sugar canes is bland beside it."
- The leaves of mango are used to sprinkle sacred water in Hindu rituals. The mango tree is rightly called the Kalpavriksha, or the 'wish-granting tree,' in our ancient texts.

5.16 Sandes, Government's instant messaging platform

- The National Informatics Centre, under the Ministry of Electronics and Information Technology (MeitY) recently launched version 2.0 of the Government of India's instant messaging platform, Sandes.
- The platform hosts several features along with being encrypted and secure. Here is everything one should know about the messaging platform. Sandes, the instant messaging platform
- The platform was first released in August 2020. Sandes has been developed by the National Informatics Centre (NIC), Ministry of Electronics and Information Technology (MeitY). The application runs on Android, iOS, and web browsers.

Features of the platform

- Sandes, an instant messaging application hosts several features such as providing 'backup to chats', 'blue ticks', 'video, and audio call' facility, to name a few. It also allows Gimoji for

communication, which are special stickers or images. Moreover, pdf documents sent or received on Sandes can directly be uploaded on the Digilocker.

Organisation verified users

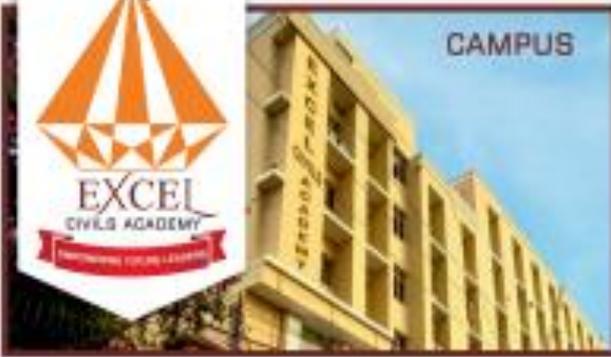
- On Sandes, users are verified to ensure genuineness in the accounts created. Organisation verified users are those government users who have been verified by their respective organisations.
- A Government user can access all the features on Sandes such as group chats, audio/video calls, etc, only if they have been verified by their organisation's admin or invited to Sandes platform by an organisation verified user.
- However, only a Nodal officer or the admin of a respective organisation can verify a user belonging to their organisation.

Users on Sandes

- There are majorly two types of users on the platform – verified users and public users.
- Verified users are government users whose occupation details have been verified by their respective organisation admin and have a tick symbol visible on their profile. On the other hand, public users are either citizens or government users who have not been verified. The tick symbol is used to indicate whether or not a user is verified.

Encryption and security

- Individual chat messages and group chat messages are end-to-end encrypted on Sandes. Furthermore, a user can use a 'confidential tag' if the user wants to differentiate between messages to show that the message is confidential, in both individual and group chat. Similarly, a 'priority tag' can be used on messages to show the recipient that the message is to be considered on a priority basis, in both, individual and group chats.
- Sandes, the government instant messaging system offers a scope of India's alternative to instant messaging platforms in the country.



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