



# CURRENT AFFAIRS

FORTNIGHTLY SEPTEMBER 01 - 15

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## 1. ECONOMY

### 1. Government Curbs Funding for 10 NGOs

#### Why in News?

- Five years after it cancelled the registration of international non-governmental organisation (NGO) Greenpeace to receive foreign funds, the government has moved to restrict the funding for a group of 10 American, Australian and European NGOs dealing with environmental, climate change and Child Labour Issues.

#### About the News:

- An internal Reserve Bank of India note, dated July 1, 2021, which was sent to all banks, said the government had specified a number of foreign entities to be placed on the “Prior Reference Category” (PRC list) using the stringent Foreign Contribution Regulation Act 2010, which was tightened in September 2020, making both banks and chartered accountants accountable for any unauthorised funds that come through.
- The NGOs are the European Climate Foundation; the U.S.-based Omidyar Network International, Humanity United and Stardust Foundation; the Australia-based Walk Free Foundation and Minderoo Foundation; the U.K.-based Children’s Investment Fund Foundation, Freedom Fund and Laudes Foundation, and the U.K./ UAE-based Legatum Fund.
- They add to the more than 80 International Voluntary Agencies now on the PRC list of the Government.

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

- Foreign Funding of voluntary organizations in India is regulated under FCRA act which is implemented by the Ministry of Home Affairs.
- The Acts ensures that the recipients of foreign contributions adhere to the stated purpose for which such Contribution has been obtained.
- Under the Act, Organisations are required to register themselves every Five Years.

#### About Non-Governmental Organisations (NGO):

- Worldwide, the term ‘NGO’ is used to describe a body that is neither part of a government nor a conventional for-profit business organisation.
- NGOs are groups of ordinary citizens that are involved in a wide range of activities that may have charitable, social, political, religious or other interests.
- NGOs are helpful in implementing government schemes at the grassroots.

- In India, NGOs can be registered under a plethora of Acts such as the Indian Societies Registration Act, 1860, Religious Endowments Act, 1863, Indian Trusts Act, etc.
- India has possibly the largest number of active NGOs in the world; a study commissioned by the government put the number of NGOs in 2009 at 33 lakh.
- That was one NGO for less than 400 Indians, and many times the number of primary schools and primary health centres.
- Ministries such as Health and Family Welfare, Human Resource Department, etc provides funding to a handful of NGOs.
- NGOs also receive funds from abroad, if they are registered with the Home Ministry under the Foreign Contribution (Regulation) Act (FCRA).
- Without this, no NGO can receive cash or anything of value higher than Rs 25,000.

### Controversies Related to FCRA:

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

- In April 2016, the UN Special Rapporteurs on the Rights to Freedom of Peaceful Assembly and of Association undertook a legal analysis of the FCRA, 2010.
  - ✓ It stated that restrictions in the name of “public interest” and “economic interest” as invoked under the FCRA failed the test of “legitimate restrictions”.
  - ✓ The terms were too vague and gave the state excessive discretionary powers to apply the provision in an arbitrary manner.
  - ✓ In this context, though it is necessary to regulate corrupt NGOs, there needs to be clarity on terms like public interest.

## 1.1 ECONOMY SNIPPETS

### 1. Pashmina Shawls

#### Why in News?

- Recently, the Directorate of Handicrafts and Handloom, Kashmir has announced a Minimum Support Price (MSP) for Geographical Indication (GI)-certified hand-made Pashmina shawls “to sustain the old techniques”.

#### Highlights:

- They are produced by two techniques, loom woven or kani shawls and the needle embroidered or sozni shawls.
- The basic fabric is of the three types - Shah Tush, Pashmina and Raffal.
- Shah Tush (King of wool) passes through a ring and is also known as Ring shawl.
- It comes from a rare Tibetan antelope living at a height of over 14000 ft in the wilds of the Himalayas.
- Pashmina is known world over as cashmere wool, it comes from a special goat (*Capra hircus*) living at an altitude of 12000 to 14000 ft.
- Raffal is spun out of merino wool tops and is a popular type of shawl.
- GI is an indication used to identify goods having special characteristics originating from a definite geographical territory.

### 2. River Umngot

#### Why in News?

- The Meghalaya government has recently scrapped an agreement with private power developers to execute the proposed Umngot hydroelectric project on river Umngot.

## Highlights:

- It is popularly known as Dawki river, the Umngot river in Meghalaya is undisputedly the cleanest river in Asia with its crystal clear water. It originates from the Eastern Shillong Peak, which is located 1,800 m above sea level.
- It is in the village of Mawlynnong ("God's Own Garden") in Meghalaya, close to India's border with Bangladesh, which is touted as Asia's Cleanest Village.
- Alongside cleanliness, the village has also achieved a rare feat — a 100% literacy rate.
- It acts as a natural divide between Jaintia and Khasi hills, before finally flowing into Bangladesh.

## 3. Financial Stability and Development Council (FSDC)

### Why in News?

- The finance minister has recently chaired the 24th meeting of the Financial Stability and Development Council (FSDC).

### Highlights:

- The council discussed issues relating to management of stressed assets, strengthening institutional mechanisms for financial stability analysis, issues related to IBC (Insolvency and Bankruptcy Code), data sharing mechanisms of government authorities, internationalisation of the Indian rupee and pension sector related issues.
- A non-statutory apex council under the Ministry of Finance constituted by the Executive Order in 2010. The Raghuram Rajan committee (2008) on financial sector reforms first proposed the creation of FSDC.
- It is chaired by the Finance Minister and its members include the heads of all Financial Sector Regulators (RBI, SEBI, PFRDA & IRDA), Finance Secretary, Secretary of Department of Economic Affairs (DEA), Secretary of Department of Financial Services (DFS), and Chief Economic Adviser.
- In 2018, the government reconstituted FSDC to include the Minister of State responsible for the Department of Economic Affairs (DEA), Secretary of Department of Electronics and Information Technology, Chairperson of the Insolvency and Bankruptcy Board of India (IBBI) and the Revenue Secretary.
- FSDC sub-committee is headed by the Governor of RBI. The Council can invite experts to its meeting if required.



- To strengthen and institutionalize the mechanism for maintaining financial stability, enhancing inter-regulatory coordination and promoting financial sector development.
- To monitor macro-prudential supervision of the economy. It assesses the functioning of the large financial conglomerates.

## 4. Common Prosperity Drive in China

### Why in News?

- Chinese President Xi Jinping has called for China to achieve “common prosperity”, seeking to narrow a yawning wealth gap that threatens the country’s economic ascent and the legitimacy of Communist Party rule.

### What is ‘Common Prosperity’?

- “Common prosperity” was first mentioned in the 1950s by Mao Zedong, founding leader of what was then an impoverished country.
- The idea was repeated in the 1980s by Deng Xiaoping, who modernized an economy devastated by the Cultural Revolution.
- Deng said that allowing some people and regions to get rich first would speed up economic growth and help achieve the ultimate goal of common prosperity.
- Common prosperity is not egalitarianism. It does not mean “killing the rich to help the poor”.

### Components of the Drive:

- The push for common Prosperity has Encompassed wide range of policies,
- This includes curbing tax evasion and limits on the hours that tech sector employees can work to bans on for-profit tutoring in core school subjects and strict limits on the time minors can spend playing video games.

### Why in News Now?

- China became an economic powerhouse under a hybrid policy of “socialism with Chinese characteristics”, but it also deepened inequality, especially between urban and rural areas, a divide that threatens social stability.
- This year, Xi has signalled a heightened commitment to delivering common prosperity, emphasizing it is not just an economic objective but core to the party’s governing foundation.
- A pilot programme in Zhejiang province, one of China’s wealthiest, is designed to narrow the income gap there by 2025.

## How will it be Achieved?

- Chinese leaders have pledged to use taxation and other income redistribution levers to expand the proportion of middle-income citizens, boost incomes of the poor, “rationally adjust excessive incomes”, and ban illegal incomes.
- Beijing has explicitly encouraged high-income firms and individuals to contribute more to society via the so-called “third distribution”, which refers to charity and donations.
- Several tech industry heavyweights have announced major charitable donations and support for disaster relief efforts.
- Other measures would include improving public services and social safety net.

## What will be the Economic Impact?

- Chinese leaders are likely to tread cautiously so as not to derail a private sector that has been a vital engine of growth and jobs.
- This goal may speed China’s economic rebalancing towards consumption-driven growth to reduce reliance on exports and investment, but policies could prove damaging to growth driven by private sector.
- Increasing incomes and improved public services, especially in rural areas, would be positive for consumption, and a better social safety net would lower precautionary savings.
- The effort supports Xi’s “dual circulation” strategy for economic development, under which China aims to spur domestic demand, innovation and self-reliance, propelled by tensions with the United States.

## 5. Account Aggregator network

### Why in News?

- Eight major banks have recently joined the Account Aggregator (AA) network that will enable customers to easily access and share their financial data.

### Highlights:

- An AA is a framework that simply facilitates sharing of financial information in a real-time and data-blind manner (Data flow through AA are encrypted) between regulated entities (Banks and NBFCs).
- The RBI (Reserve Bank of India) in 2016 approved AA as a new class of NBFC (Non Banking Financial Companies), whose primary responsibility is to facilitate the transfer of user’s financial data with their explicit consent.

- AAs enable flow of data between Financial Information Providers (FIPs) and Financial Information Users (FIUs).
- The architecture of AA is based on the Data Empowerment and Protection Architecture (DEPA) framework.
- DEPA is an architecture that lets users securely access their data and share the same with third parties.
- The AA framework allows customers to avail various financial services from a host of providers on a single portal based on a consent method, under which the consumers can choose what financial data to share and with which entity.
- It permits users to control who gets access to their data, track and log its movement and reduce the potential risk of leakage in transit.
- As an addition to India's digital infrastructure, it will allow banks to access consented data flows and verified data. This will help banks reduce transaction costs, which will enable them to offer lower ticket size loans and more tailored products and services to their customers.
- AA reduces the fraud associated with physical data by introducing secure digital signatures and end-to-end encryption for data sharing.

## 6. Govt must Constitute GST Tribunal: SC

### Why in News?

- The Supreme Court has warned that the government had no option but to constitute the Goods and Services Tax (GST) Appellate Tribunal.

### What is GST Appellate Tribunal?

- The GST Appellate Tribunal (GSTAT) is the second appeal forum under GST for any dissatisfactory order passed by the First Appellate Authorities.
- The National Appellate Tribunal is also the first common forum to resolve disputes between the centre and the states. Being a common forum, it is the duty of the GST Appellate Tribunal to ensure uniformity in the redressal of disputes arising under GST.
- It holds the same powers as the court and is deemed Civil Court for trying a case.

### Constitution of the GST Appellate Tribunal:

- **The GSTAT has the following structure:**
  - ✓ **National Bench:** The National Appellate Tribunal is situated in New Delhi, constitutes a National President (Head) along with 2 Technical Members (1 from Centre and State each)

- ✓ **Regional Benches:** On the recommendations of the GST Council, the government can constitute (by notification) Regional Benches, as required. As of now, there are 3 Regional Benches (situated in Mumbai, Kolkata and Hyderabad) in India.
- ✓ **State Bench and Area Bench**

### Why in News now?

- The GST tribunal has not been constituted even four years after the central GST law was passed in 2016.
- Section 109 of the GST Act mandates the constitution of the Tribunal.
- Citizens aggrieved are constrained to approach respective High Court and the same was overburdening the work of the High Courts.

### Goods and Services Tax:

- The GST is a value-added tax levied on most goods and services sold for domestic consumption.
- It was launched into operation on the midnight of 1st July 2017.
- It subsumed almost all domestic indirect taxes (petroleum, alcoholic beverages and stamp duty are the major exceptions) under one head.
- The GST is paid by consumers, but it is remitted to the government by the businesses selling the goods and services.
- GST is levied at four rates viz. 5%, 12%, 18% and 28%. The schedule or list of items that would fall under these multiple slabs are worked out by the GST council.

### Types:

- The GST to be levied by the Centre is called Central GST (CGST) and that to be levied by the States is called State GST (SGST).
- Import of goods or services would be treated as inter-state supplies and would be subject to Integrated Goods & Services Tax (IGST) in addition to the applicable customs duties.

### The GST Council:

- It is a constitutional body (Article 279A) for making recommendations to the Union and State Government on issues related to GST.
- The GST Council is chaired by the Union Finance Minister and other members are the Union State Minister of Revenue or Finance and Ministers in charge of Finance or Taxation of all the States.
- It is considered as a federal body where both the centre and the states get due representation.



## 7. New Code for Creditors (CoC) under IBC

### Why in News?

- The insolvency regulator has called for public comments on a proposal to introduce a code of conduct for Committees of Creditors (CoC), of companies undergoing insolvency proceedings under the Insolvency and Bankruptcy Code (IBC).

### IBC:

- The IBC, 2016 is the bankruptcy law of India which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy.
- It is a one-stop solution for resolving insolvencies which previously was a long process that did not offer an economically viable arrangement.
- The code aims to protect the interests of small investors and make the process of doing business less cumbersome.

### Key Features:

- **Insolvency Resolution:** The Code outlines separate insolvency resolution processes for individuals, companies, and partnership firms. The process may be initiated by either the debtor or the creditors. A maximum time limit, for completion of the insolvency resolution process, has been set for corporates and individuals.
- For companies, the process will have to be completed in 180 days, which may be extended by 90 days, if a majority of the creditors agree.
- For startups (other than partnership firms), small companies, and other companies (with assets less than Rs. 1 crore), the resolution process would be completed within 90 days of initiation of request which may be extended by 45 days.
- **Insolvency regulator:** The Code establishes the Insolvency and Bankruptcy Board of India, to oversee the insolvency proceedings in the country and regulate the entities registered under it. The Board will have 10 members, including representatives from the Ministries of Finance and Law, and the RBI.
- **Insolvency Professionals:** The insolvency process will be managed by licensed professionals. These professionals will also control the assets of the debtor during the insolvency process.
- **Bankruptcy and Insolvency Adjudicator:** The Code proposes two separate tribunals to oversee the process of insolvency resolution, for individuals and companies:
  - National Company Law Tribunal: for Companies and Limited Liability Partnership firms; and

- **Debt Recovery Tribunal:** for individuals and partnerships

### Code of conduct for Committees of Creditors (CoC):

- A CoC is to be composed of financial creditors to the Corporate Debtor (CD) — or operational creditors in the absence of unrelated financial creditors.
- Under the IBC, CoC is empowered to take key decisions, including decisions on haircuts for creditors, that are binding on all stakeholders, including those dissenting.
- The CoC is also empowered to seek and choose the best resolution plan for a corporate debtor from the market, and its role is vital for a timely and successful resolution for a CD.
- The IBBI noted that a code of conduct for CoCs would promote transparent and fair working on the part of CoCs.
- What are the issues that the code of conduct is seeking to address?
- Several cases in which certain lenders have withdrawn funds from a CD undergoing insolvency proceeding and contributed to delays in the insolvency process.
- Delays in resolution are seen as contributing to the loss of value in corporate debtors and have become a key criticism of the IBC, with over 75 percent of proceedings having crossed the 270-day timeline.
- The IBBI highlighted cases in which representatives of lenders have had to seek approval from seniors for decisions such as an appointment of resolution professionals.
- IBBI has recommended that a code of conduct require that members of the CoC nominate representatives with sufficient authorization to participate in meetings and make decisions during the process.
- The regulator also highlighted cases where lenders have withdrawn funds from a corporate debtor during insolvency or liquidation proceedings.

## 8. Container shortage and its Impact on International Trade

### Why in News?

- The Government is in talks with exporters to help them deal with an international container shortage that has led to freight rates rising by over 300 per cent in the past year for key Shipping Routes.

### Why is there an International Container Shortage?

- The reduction in the number of shipping vessels operating as a result of the Covid-19 pandemic has led to fewer empty containers being picked up.

- This has left many containers in inland depots and stuck at ports for long durations.
- Long waiting times at key ports such as those in the US due to congestion are also contributing to lengthening turnaround time for containers.
- A sustained global economic recovery has added to the impetus to trade.
- Some countries are willing to pay a premium for empty containers and that this was further adding to the container shortage.

### Freight Rate Impact:

- The lack of availability of containers and the faster than expected recovery in international trade has pushed up freight rates significantly over the past year.
- Some key international routes are seeing an increase in freight rates of over 500 per cent compared to September last year.
- Structural problems such as the high turnaround time for ships in India also add to the container shortage issue that exporters are currently facing.

### How is the Container Shortage Impacting Indian exporters?

- **Delay:** Indian exporters are facing major delays in their shipments and consequent liquidity issues as they have to wait longer to receive payment for exported goods.
- **Liquidity Crunch:** Exporters noted that shipments that used to take 45 days are now taking 75-90 days leading to a 2-3-month delay in payments leading to liquidity crunch particularly for small exporters.

### How can the Government Help Address this Issue?

- Exporters are calling on the government to regulate the export of empty containers.
- Exporters have asked the government to curb the export of empty containers at all Indian ports in line with a move by the Kolkata port which restricted the number of empty containers permitted to be exported to 100 per vessel for a three month period.
- Exporters are also calling on the government to release about 20,000 containers that have been abandoned or are detained by government agencies so that they can augment supply.
- Indian exporters has also called on the government to notify a freight support scheme for all exports till the end of the fiscal when freight rates are expected to normalise.
- They are also asking the government to push back on a move by shipping lines to offer priority bookings at higher rates, asking that shipping lines revert to taking bookings on a first come first serve basis.
- In the medium term, exporters have called on the government to take steps to boost the manufacturing of containers in India.

## 9. SEBI introduces T+1 Settlement System

### Why in News?

- The Capital markets regulator Securities and Exchange Board of India (SEBI) has introduced T+1 settlement cycle for completion of share transactions on optional basis in a move to Enhance Market Liquidity.



### What is T+1 Settlement System?

- T+1 means that settlements will have to be cleared within one day of the actual transactions taking place. Currently, trades on the Indian stock exchanges are settled in two working days after the transaction is done (T+2).
- In April 2002, stock exchanges had introduced a T+3 rolling settlement cycle. This was shortened to T+2 from April 1, 2003.

### What has Sebi Allowed?

- SEBI has allowed stock exchanges to start the T+1 system as an option in place of T+2.
- If it opts for the T+1 settlement cycle for a scrip, the stock exchange will have to mandatorily continue with it for a minimum 6 months. Thereafter, if it intends to switch back to T+2, it will do so by giving one month's advance notice to the market. Any subsequent switch (from T+1 to T+2 or vice versa) will be subject to a minimum period. A stock exchange may choose to offer the T+1 settlement cycle on any of the scrips, after giving at least one month's advance notice to all stakeholders, including the public at large.

### Why T+1 Settlement?

- Reduced settlement time: A shortened cycle not only reduces settlement time but also reduces and frees up the capital required to collateralize that risk.
- Quick settlement: T+1 also reduces the number of outstanding unsettled trades at any instant, and thus decreases the unsettled exposure to Clearing Corporation by 50%.



- **Speedy Recovery of Assets:** The narrower the settlement cycle, the narrower the time window for a counterparty insolvency/bankruptcy to impact the settlement of a trade.
- **Risk reduction:** Systemic risk depends on the number of outstanding trades and concentration of risk at critical institutions such as clearing corporations, and becomes critical when the magnitude of outstanding transactions increases.

### How does T+2 work?

- If an investor sells shares, settlement of the trade takes place in two working days (T+2).
- The broker who handles the trade will get the money, but will credit the amount in the investor's account only. In effect, the investor will get the money only after Three Days.
- In T+1, settlement of the trade takes place in one working day and the investor will get the money on the following day.
- The move to T+1 will not require large operational or technical changes by market participants, nor will it cause fragmentation and risk to the core clearance and settlement ecosystem.

### Why are Foreign Investors Opposing it?

- Foreign investors operating from different geographies would face time zones, information flow process, and foreign exchange problems.
- Foreign investors will also find it difficult to hedge their net India exposure in dollar terms at the end of the day under the T+1 system.
- In 2020, SEBI had deferred the plan to halve the trade settlement cycle to one day (T+1) following opposition from foreign investors.

## 2. ENVIRONMENT

### 1. No Firm Commitment from India on Net Zero

#### Why in News?

- U.S. Special envoy John Kerry was recently making a pitch for India to announce a pledge to reduce emissions to “net zero” (carbon-neutral) by 2050 – to ensure global warming is held at 1.5 degrees Celsius – at the upcoming COP26 summit in the UK in November.

#### What is Net-Zero?

- Net-zero, which is also referred to as carbon-neutrality, does not mean that a country would bring down its Emissions to zero. Rather, net-zero is a state in which a country’s emissions are compensated by absorption and removal of greenhouse gases from the atmosphere.
- Absorption of the Emissions can be increased by creating more carbon sinks such as forests, while removal of gases from the atmosphere requires futuristic technologies such as carbon Capture and Storage.

#### Background of the Issue:

- A very active campaign has been going on for the last two years to get every country to sign on to a net-zero goal for 2050. It is being argued that global carbon neutrality by 2050 is the only way to achieve the Paris Agreement target of keeping the planet’s temperature from rising beyond 2°C compared to pre-Industrial Times.
- The net-zero Formulation does not assign any emission reduction targets on any country.

#### Net-zero and the Paris agreement:

- The net-zero goal does not figure in the 2015 Paris Agreement, the new global architecture to fight climate change. The Paris Agreement only requires every signatory to take the best climate action it can. Countries need to set five- or ten-year climate targets for themselves, and demonstrably show they have achieved them. The other requirement is that targets for every subsequent time-frame should be more ambitious than the Previous One.

#### Other Countries Commitment to Net- Zero:

- Several other countries, including the UK and France, have already enacted laws promising to achieve a net-zero emission scenario by the middle of the century. Even China has promised to go net-zero by 2060.
- The European Union is working a similar Europe-wide law, while many other countries including Canada, South Korea, Japan and Germany have expressed their intention to commit themselves to a net-Zero Future.

## What about India? What are its Objections?

- India, the world's third Biggest emitter of greenhouse gases, after the US and China, is the only major player holding out.
- India is the only one Opposing this target because it is likely to be the most impacted by it.

## Challenges Unique to India:

- Over the next two to three decades, India's emissions are likely to grow at the fastest pace in the world, as it presses for higher growth to pull hundreds of millions of people out of poverty. No amount of afforestation or reforestation would be able to compensate for the increased emissions.
- Most of the carbon removal technologies right now are either unreliable or very expensive.

## 2.1. ENVIRONMENT SNIPPETS

### 1. Latham's Snipe

#### Why in News?

- Recently, Urban development continues to threaten Latham's Snipe habitats as several snipe sites in eastern Australia are at risk from housing developments and large infrastructure projects. It was formerly known as the Japanese Snipe.

#### Highlights:

- Latham's Snipe is the largest snipe in Australia, with cryptic, mainly brown, plumage.
- Their exceptional eyesight helps them constantly scan for dangers at night, when they forage for food in open wet and muddy areas.
- Breeds in northern Japan and parts of eastern Russia during May-July and spends the non-breeding season (September to March) along Australia's Eastern Coast.
- Like other migratory shorebirds, it has incredible endurance, undertaking a non-stop, over-ocean flight between its breeding and non-breeding grounds.
- Hunting and wetland loss during the 20th century have contributed to a decline in Latham's Snipe in south-eastern Australia.
- The signing of the Japan Australia Migratory Bird Agreement in 1981 has stopped snipe hunting in both countries to some extent.
- **The Protection Status are IUCN Red List:** Least Concern

## 2. Kilauea Volcano

### Why in News?

- A surge of earthquakes and the ground swelling at the southern part of the crater was recently noticed at Hawaii's Kilauea volcano.

### Highlights:

- A volcano is an opening on the surface that allows material warmer than its surroundings to escape from its interior.
- Kilauea, also called Mount Kilauea ("Much Spreading" in Hawaiian), is located in Hawaii Volcanoes National Park on the south-eastern part of the island of Hawaii, US.
- Kilauea's slopes merge with those of the nearby volcano Mauna Loa on the west and north.
- It is an elongated dome built of lava eruptions from a central crater and from lines of craters extending along east and southwest rifts, or fissures. The volcano's 4,090-foot summit has collapsed to form a caldera.
- A caldera is a depression created after a volcano partially collapses after releasing the majority of its magma chamber in an Explosive Eruption.

## 3. Ladakh adopts State Animal and Bird

### Why in News?

- Ladakh has recently adopted two endangered species, snow leopard and black-necked crane, as State animal and State bird, two years after it was carved out as a separate Union Territory (UT) from the erstwhile State of J&K.



### About the Snow Leopard:

- Snow leopards act as an indicator of the health of the mountain ecosystem in which they live, due to their position as the top predator in the food web.
- Habitats include Mountainous regions of central and southern Asia.
- In India, their Geographical Range Encompasses:
  - ✓ **Western Himalayas:** Jammu and Kashmir, Ladakh, Himachal Pradesh.
  - ✓ **Eastern Himalayas:** Uttarakhand and Sikkim and Arunachal Pradesh.
- **Snow Leopard capital of the world:** Hemis, Ladakh which is the biggest national park in India and also has a good presence of Snow Leopard.



- **Protection Status:**

- ✓ The snow leopard is listed as Vulnerable on the IUCN-World Conservation Union's Red List of the Threatened Species.
- ✓ In addition, it is also listed in Appendix I of the Convention on International Trade of Endangered Species (CITES).
- ✓ It is listed in Schedule I of the Indian Wildlife (Protection) Act 1972.
- Making trading of animal body parts (i.e., fur, bones and meat) illegal in signatory countries.
- It is also listed in the Convention on Migratory Species (CMS), affording the highest conservation status to the species, both globally and in India.
- It is also protected by several National laws in its Range Countries.

### About Black Necked Crane:

- Black Necked Crane was recently declared as the state bird of Ladakh.
- They have upper long neck, head, primary and secondary flight feathers and tail are completely black and body plumage is pale gray/whitish. Both the sexes are almost of the same size but male is slightly bigger than female.
- A conspicuous red crown adorns the head.
- The juveniles have a brownish head and neck and plumage is slightly paler than that of an adult.
- The bird is revered by the community of Monpas (major Buddhist ethnic group of Arunachal Pradesh) as an embodiment of the sixth Dalai Lama (Tsangyang Gyatso).
  - ✓ Monpas inhabit the West Kameng and Tawang districts, are essentially Buddhists who follow the Mahayana sect.
- The high altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India) are the main breeding ground of the species, the birds spend winter at lower altitudes. In Bhutan and Arunachal Pradesh, it only comes during the winters.
- In Arunachal Pradesh, it can be seen in three areas:
  - ✓ Sangti valley in West Kameng district.
  - ✓ Zemithang in Tawang district.
  - ✓ Chug valley in Tawang district.
- **Threats include:**
  - ✓ Damage to the Eggs and Chicks, caused by Feral Dogs.



- ✓ Loss of habitat due to human pressure (Development Projects) on the wetlands.
- ✓ Increased grazing pressure on the limited pastures near the Wetlands.
- **Steps for their Conservation:** World Wide Fund for Nature-India (WWF-India) in collaboration with the Department of Wildlife Protection, Jammu & Kashmir, has been working towards conservation of high altitude wetlands, with black-necked cranes as a priority species in Ladakh region. In Arunachal Pradesh, WWF is working for the conservation of the small wintering population.
- **Protection Status:**
  - ✓ **IUCN Red List:** Near Threatened
  - ✓ **CITES:** Appendix I
  - ✓ **Indian Wildlife (Protection) Act, 1972:** Schedule I

#### 4. Fukutoku-Okanoba Submarine Volcano

##### Why in News?

- The Fukutoku-Okanoba Submarine Volcano has recently exploded in the Pacific Ocean, off Japan.

##### Highlights:

- A surge of Earthquakes and the ground swelling was noticed at Hawaii's Kilauea Volcano.
- It is situated about 25 metres below the sea, five kilometres north of Japan's South Iwo Jima Island. The plume reached a height of 16 kilometres above the surface, which poses a risk to the passage of planes and ships. Plume went straight from being a submarine event to an eruption cloud reaching the lower boundary of the Stratosphere, this is not very common for this type of volcano. Normally lower-level plumes are seen from submarine eruptions.
- Eruption and submarine hydrothermal activities often cause water discoloration in the area, and during eruption, the volcano has built several temporary new islands.
- From Hawaii to Indonesia to Iceland, hundreds of islands across the globe have been formed by submarine volcanoes. Submarine volcanoes are exactly what they sound like—volcanoes located beneath the ocean's surface. Because they erupt into water instead of air, submarine volcanoes behave quite differently than terrestrial volcanoes. For instance, it's uncommon for submarine volcanoes to have Explosive Eruptions.
- The sheer weight of the water above them creates very high pressure, usually resulting in what are known as passive lava flows along the seafloor. Most submarine eruptions do not disturb the Ocean Surface.

## 5. Pulicat Lake

### Why in News?

- Migratory birds, including the famous flamingos, have started arriving to the picturesque Pulicat Lake, the largest brackish water ecosystem in the country, next only Chilika in Odisha.

### About the Pulicat Lake:

- It is the second-largest brackish water ecosystem in the country after the Chilika Lake (Odisha).
- It is located on the border of Andhra Pradesh and Tamil Nadu. It lies majorly in Andhra Pradesh.
- The large varieties of birds like grey pelicans, painted storks, visit the site annually.
  - ✓ Grey Pelican and Painted Stork both are near-threatened species under IUCN Red List of Threatened Species.



## 6. Global Award for Turtle Conservation

### Why in News?

- Indian biologist Shailendra Singh has been awarded the Behler Turtle Conservation Award for bringing three critically endangered turtle conservation species back from the brink of extinction.

### About:

- The Behler Turtle Conservation Award was established in 2006 to recognise outstanding achievements, contributions and leadership excellence in international turtle conservation and biology. The award has been bestowed by several global bodies involved in turtle conservation such as Turtle Survival Alliance, IUCN/SSC Tortoise and Freshwater Turtle Specialist Group, Turtle Conservancy, and the Turtle Conservation Fund.
- Shailendra Singh was also named to lead the Turtle Survival Alliance (TSA)/ Wildlife Conservation Society (WCS) India turtle programme.
- These critically endangered turtles are being conserved as a part of TSA India's research, conservation breeding and education programme in different parts of the country.
- The Northern River Terrapin (Batagur baska) is being conserved at the Sunderbans; the Red-crowned Roofed Turtle (Batagur kachuga) at Chambal; and the Black Softshell Turtle (Nilssonina nigricans) at different temples in Assam.

- There are 29 species of freshwater turtles and tortoises in the country.



a) Northern River Terrapin b) Red-Crowned Roofed Turtle c) Black Softshell Turtle

## 7. Dinosaur Footprints found in Thar Desert

### Why in News?

- In a major discovery, footprints of three species of dinosaurs have been found in the Thar desert in Rajasthan's Jaisalmer district.

### Details of the Footprints:

- The footprints, made in the sediment or silt of the seashore, later become permanently stone-like. They belong to three species of dinosaurs — *Eubrontes cf. giganteus*, *Eubrontes glenrosensis* and *Grallator tenuis*.
- While the *giganteus* and *glenrosensis* species have 35 cm footprints, the footprint of the third species was found to be 5.5 cm. The Dinosaur species are considered to be of the theropod type, with the distinguishing features of hollow bones and feet with three digits.
- All three species, belonging to the early Jurassic period, were carnivorous.
- *Eubrontes* could have been 12 to 15 metres long and weighed between 500 kg and 700 kg, while the height of the *Grallator* is estimated to have been two metres, as much as a human, with a length of up to three metres.

### Key Findings:

- The discovery of dinosaur footprints prove the presence of the giant reptiles in the western part of the State, which formed the seashore to the Tethys Ocean during the Mesozoic era.
- Careful geological observations enabled the scientists to interpret ancient environments in which the rocks of the footprints, which were once soft sediments, were deposited.
- Geochemical analyses and calculation of weathering indices showed that the hinterland climate was seasonal to semi-arid during the deposition of the footprints.
- Fieldwork in the Kutch and Jaisalmer basins has suggested that after the main transgression during the early Jurassic period, the sea level changed several times.

- Spatial and temporal distribution of sediments and traces of fossils and post-depositional structures provided an indication to this phenomenon.

### Significance:

- These trace fossils are significant to ascertain how life started and evolved after the mass extinction of species, including dinosaurs, at the end of the cretaceous period around 65 million years ago. This research also illustrates the evidence of a fluvial freshwater palaeo-environment and tropical palaeo-climate, indicating the presence of a tropical forest and a huge network of Rivers.

## 8. India's Tallest Air Purifier

### Why in News?

- India's tallest air purifier will be inaugurated in Chandigarh on the International Day of Clean Air for Blue Skies.

### Highlights:

- In August 2021 country's first 'smog tower' was inaugurated in Connaught Place, New Delhi.
- It is a 24 meter long outdoor air purification tower and is capable of purifying the air of a radius of around 1 km.
- It will also show the quality index of the air it inhales and the quality index of the air it will exhale. It functions through electricity.
- Air purifiers are structures designed as large-scale air purifiers to reduce air pollution particles. Chandigarh is one of the non-attainment cities in the country according to National Clean Air Programme (NCAP) norms, which means it has over a five-year period not consistently met the National Ambient Air Quality Standards (NAAQS) for harmful PM 10 (particulate matter that is 10 microns or less in diameter), PM 2.5 or NO<sub>2</sub> (nitrogen dioxide). After remaining "satisfactory" and "moderate" during the lockdown period and a few months after, the Air Quality Index (AQI) had again turned "poor" for the first time in November 2020.

### International Day of Clean Air for Blue Skies:

- The United Nations General Assembly (UNGA) in December 2019, adopted a resolution by which 7th September became the International Day of Clean Air for blue skies.
- It aims to prioritize the need for healthy air for all while keeping conversations broad enough to encompass other critical issues such as climate change, human and planetary health as well as the Sustainable Development Goals.



- The resolution was adopted in recognition of the necessity to bring down the number of casualties and ailments from pollutants like chemicals in the air, water and soil by the year 2030. For 2021 the theme is Healthy Air, Healthy Planet.

## 9. Manda buffalo

### Why in News?

- Recently, the Manda buffalo has been recognised as the 19th unique breed of buffaloes found in India by the National Bureau of Animal Genetic Resources (NBAGR).

### Highlights:

- Four breeds of cattle - Binjharपुरi, Motu, Ghumusari and Khariar - and two breeds of buffalo - Chilika and Kalahandi - and one breed of sheep, Kendrapada, have already received NBAGR recognition.
- They are found in the Eastern Ghats and plateau of Koraput region of Odisha.
- The small, sturdy buffaloes are used for ploughing in their native habitat.
- These buffaloes have ash grey and grey coats with copper-coloured hair. Some animals are silver white in colour.
- The Manda are resistant to parasitic infections, less prone to diseases and can live, produce and reproduce at low or nil input systems.
- The state and the Centre will make efforts to conserve this unique buffalo genetic resource of Odisha and enhance their productivity through breeding strategy.
- The governments will help in marketing the produce- milk, curd and ghee at a premium price resulting in the improvement of the livelihood of the stakeholders in the native tract.

## 10. Climate Change in North East India

### Why in News?

- An analysis has recently showed a changing rainfall pattern in North East (NE) India because of Climate Change.

### Highlights:

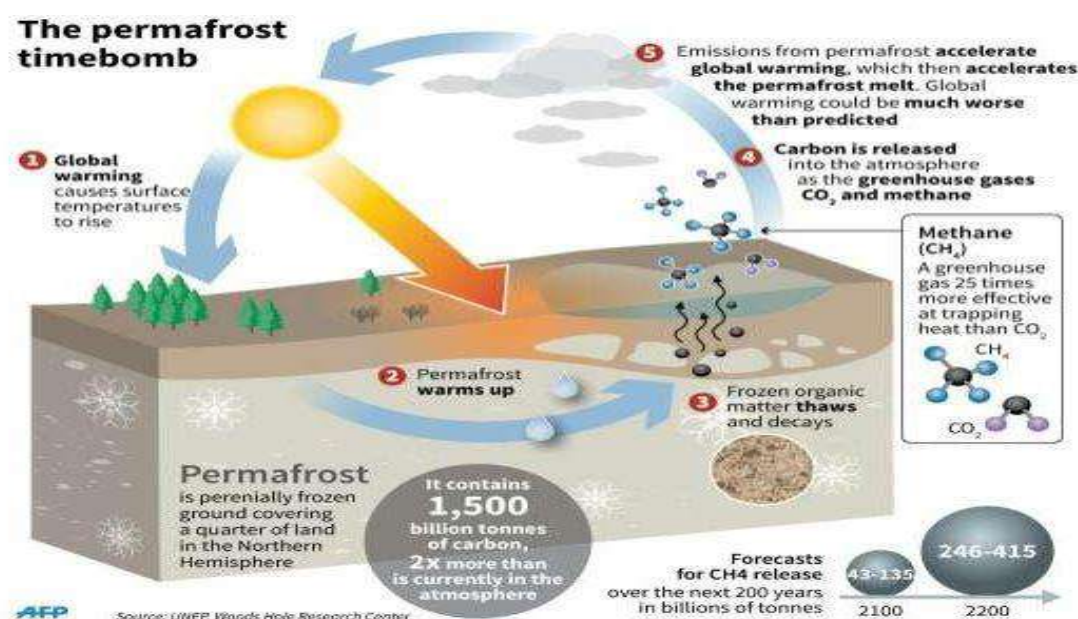
- The National Action Plan on Climate Change (NAPCC) was launched in 2008 by the Prime Minister's Council on Climate Change.
- It identifies measures that promote India's development objectives while also yielding co-benefits for addressing climate change effectively.

- NE normally receives heavy rainfall during the Monsoon months (June-September), but has changed its course in recent years.
- The rains come in quick bursts and Flood the region, followed by elongated dry periods that border on drought. A research paper published in 2018 found that the monsoon rainfall in NE decreased by 355 mm between 1979 and 2014.
- Out of this, 30-50 mm decrease was due to a reduction in local Moisture levels.
- Because of its unique topology and steep slopes suddenly giving way to plains, the region is prone to river course changing.
- NE is mostly hilly and is an extension of the Indo-Gangetic Plains, the region is highly sensitive to changes in regional and global climate.
- Pre-monsoon and monsoon are the rainy seasons of northeast India.
- In most of the NE states the rainfall during monsoon has declined in two decades below the Long Period Average (LPA). The number of rainy days decreased in most districts to the north of the Brahmaputra. This means that increased rainfall now happens over fewer days, increasing chances of river flooding.

## 11. Can Thawing Permafrost cause another pandemic?

### Why in News?

- The latest IPCC report has warned that increasing global warming will result in reductions in Arctic permafrost and the thawing of the ground is expected to release greenhouse gases like methane and Carbon Dioxide.



## What is Permafrost?

- ‘Permafrost’ or permanently frozen ground is land that has been frozen at or below 0 degrees Celsius for two or more consecutive years.
- A staggering 17 per cent of Earth’s entire exposed land surface is comprised of permafrost.
- Composed of rock, sediments, dead plant and animal matter, soil, and varying degrees of ice, permafrost is mainly found near the poles, covering parts of Greenland, Alaska, Northern Canada, Siberia and Scandinavia.
- The Arctic region is a vast ocean, covered by thick ice on the surface (called sea ice), surrounded by land masses that are also covered with snow and ice.

## Permafrost Thawing:

- When permafrost thaws, water from the melted ice makes its way to the caves along with ground sediments, and Deposits on the rocks.
- In other words, when permafrost thaws, the rocks grow and when permafrost is stable and Frozen, they do not Grow.

## Why Thawing?

- The link between the Siberian permafrost and Arctic sea ice can be explained by two factors:
- One is heat transport from the open Arctic Ocean into Siberia, making the Siberian climate warmer.
- The second is moisture transport from open seawater into Siberia, leading to thicker snow cover that insulates the ground from cold winter air, contributing to its warming.
- This is drastically different from the situation just a couple of decades ago when the sea ice acted as a protective layer, maintaining cold temperatures in the region and shielding the permafrost from the moisture from the ocean.
- If sea ice (in the summer) is gone, permafrost start thawing.

## Impact on Climate Change:

- Due to relentlessly rising temperatures in the region, since the late-twentieth century, the Arctic sea ice and surrounding land ice are melting at accelerating rates.
- When permafrost thaws due to rising temperatures, the microbes in the soil decompose the dead organic matter (plants and animals) to produce methane (CH<sub>4</sub>) and carbon dioxide (CO<sub>2</sub>), both potent greenhouse gases.
- CH<sub>4</sub> is at least 80 times more powerful than CO<sub>2</sub> on a decadal timescale and around 25 times more powerful on a century timescale.

- 
- The greenhouse gases produced from thawing permafrost will further increase temperatures which will, in turn, lead to more permafrost thawing, forming an unstoppable and irreversible self-reinforcing feedback loop.
  - Experts believe this process may have already begun. Giant craters and ponds of water (called ‘thermokarst lakes’) formed due to thawing have been recorded in the Arctic region. Some are so big that they can be seen from space.

### **Why a Matter of Concern?**

- An estimated 1,700 billion tonnes – twice the amount currently present in the atmosphere – of carbon is locked in all of the world’s permafrost.
- Even if half of that were to be released to the atmosphere, it would be game over for the climate.
- Scientific estimates suggest that the Arctic Ocean could be largely sea ice-free in the summer months by as early as 2030, based on observational trends, or as late as 2050, based on climate model projections.

### **Potential to cause another Pandemic:**

- When the permafrost was formed thousands of years ago, there weren’t many humans who lived in that region which was necessarily very cold.
- Researchers recently found mammoths in the permafrost in Russia.
- And some of these mammoth carcasses when they begin to degrade again may reveal bacteria that were frozen thousands of years ago.
- So there will be surprises. But whether they will be lethal surprises is just not possible to say.

## 3. POLITY AND GOVERNANCE

### 1. Two Years of NRC Draft

#### Why in News?

- More than 19 lakh out of 3.3 crore applicants were left out of the complete draft of Assam's National Register of Citizens (NRC) published on August 31, 2019.

#### What is NRC?

- The NRC is the list of Indian citizens and was prepared in 1951, following the census of 1951.
- The process of NRC update was taken up in Assam as per a Supreme Court order in 2013.
- In order to wean out cases of illegal migration from Bangladesh and other adjoining areas, NRC updation was carried out under The Citizenship Act, 1955, and according to rules framed in the Assam Accord.
- The Assam government released the final draft of NRC on July 30, 2018. The list incorporates names of 2.89 crore people out of 3.29 crore applicants. The names of 40.07 lakh people have been left out.

#### Why it was Carried out?

- **Crisis of Identity:** Influx of immigrants has created a crisis of identity among the indigenous. Locals fear that their cultural survival will be affected, political control weakened and employment opportunities undermined because of immigrants.
- **Environmental Degradation:** Large areas of forest land were encroached upon by the immigrants for settlement and cultivation. The state experienced declining percent of land area under forest from 39% in 1951-52 to about 30% now.
- **Increase Financial Burden:** Immigration has increased pressure on the part of state government, as the government has to increase the expenditure on education and health facilities to the immigrants.

#### Why is this Worrisome?

- The official presumption that people residing in Assam areas are foreigners has reduced several million of these highly impoverished, mostly rural, powerless and poorly lettered residents to a situation of helplessness and extreme poverty, destitution, hardship.
- It has also caused them abiding anxiety and uncertainty about their futures. They are required to convince a variety of usually hostile officials that they are citizens, based on vintage documents which even urban, educated, middle-class citizens would find hard to muster.



- Women are especially in danger of exclusion from the citizenship register. Typically, they have no birth certificates, are not sent to school, and are married before they become adults.
- UN experts are warning continuously that the National Register of Citizens (NRC) in Assam could render millions of citizens stateless and create instability in India.

### Who are Gorkhas?

- Gorkhas (or Gurkhas) are Nepali-origin people who take their name from the 8th-century Hindu warrior-saint Guru Gorakhnath and from the Nepal hill town of Gorkha.
- In India, the word is sometimes used to make a distinction between Indian Gorkhas, who are citizens of India, and Nepali citizens who are living in India.

### About the Gorkhas in Assam:

- There are currently 25 lakh Gurkhas in Assam.
- The Gurkhas were permanently settled in the Scheduled Areas in the last part of the 18<sup>th</sup> century as grazers and cultivators.
- They fought for Assam against the Burmese invaders in 1826 resulting in the Treaty of Yandaboo which was a peace treaty that resulted in the end of the First Anglo Burmese War. This treaty was signed on February 24, 1826 after two years of the war between British and Burmese. They were declared as protected class by the British in the tribal belts and blocks according to the Assam Land and Revenue Regulation Act, 1886.

### What can the left out do now?

- According to the Centre's standard operating procedures, a rejected person would have 120 days from the date of receiving the rejection slip to approach a Foreigners' Tribunal (FT) for judging their citizenship status.

### About Foreigners Tribunals in Assam:

- The tribunals are quasi-judicial bodies, to determine if a person staying illegally is a "foreigner" or not.
- Every individual, whose name does not figure in the final National Register of Citizens (NRC), can represent his/her case in front of the appellate authority i.e. Foreigners Tribunals (FT).
- Assam has set up FTs, specifically to handle the cases of 19.06 lakh people left out of the updated NRC. Under the provisions of Foreigners Act 1946 and Foreigners (Tribunals) Order 1964, only Foreigners Tribunals are empowered to declare a person as a foreigner.

- The Assam Police Border Organisation, a wing of the State police tasked with detecting foreigners, readies the cases for the tribunals to decide who is a foreigner and who is not.

### Way Ahead:

- A person's citizenship is a basic human right. Declaring people foreigners in haste without judicially verifying their credentials can leave many human beings stateless.
- The need of the hour is that Union Government should clearly chart out the course of action regarding the fate of excluded people from final NRC data and political parties should refrain from colouring the entire NRC process through electoral prospects that may snowball in to communal violence.
- There is a need for a robust Mechanism of legal support for the four million who have to prove their citizenship to India with their limited means.

## 2. Deepar Beel at risk Still Dumping Stops, Says Activists

### Why in News?

- Local stakeholders have found flaws in the eco-sensitive zone (ESZ) of the Deepar Beel Wildlife Sanctuary — Assam's only Ramsar Site — notified by the Environment Ministry recently.

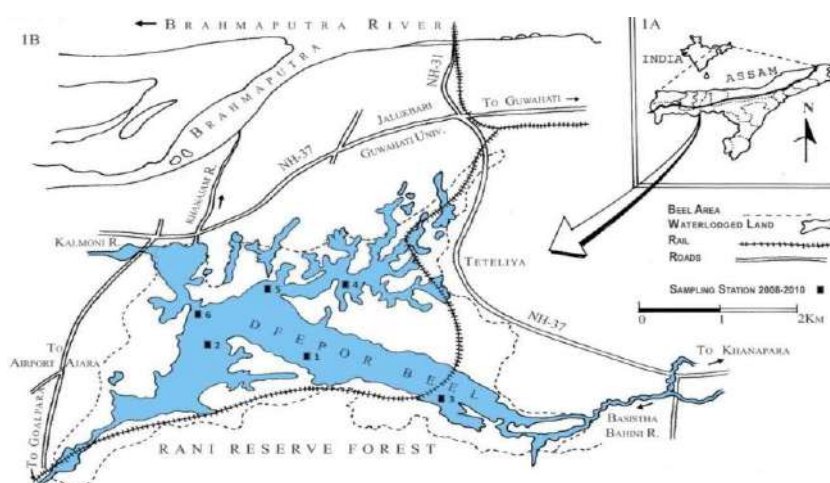
### What is the Issue?

- The Environment Ministry's notification specified an area "to an extent varying from 294 metres to 16.32 km" as the eco-sensitive zone, with the total area being 148.9767 sq. km.
- The notification is meaningless if the government does not stop the dumping of garbage perilously close to the wetland. Seepage from this dump and sewage from Guwahati have already made the sanctuary toxic.
- The notification is not clear about the role of the local communities.
- Apart from factories and warehouses set up close to the wetland, Deepar Beel suffers from the garbage dump on its edge at Paschim Boragaon. This dump has been kept out of the ESZ, and this could have been done to book space for some industrial unit in the future.
- Guwahati's sewage is drained into Deepar Beel from 15-20 km away which has no point of limiting the ESZ to a few metres around the wetland if it continues to be used as a sponge for the city's Garbage and Sewage?" he asked.

### About Deepar Beel:

- Deepar Beel is located to the south-west of Guwahati city, in Kamrup district of Assam, India.

- It is a permanent freshwater lake, in a former channel of the Brahmaputra River, to the south of the main river.
- It is a wetland under the Ramsar Convention which has listed since November 2002, for undertaking conservation measures on the basis of its biological and environmental importance.
- Considered as one of the largest beels in the Brahmaputra valley of Lower Assam, it is categorised as a representative of the wetland type under the Burma monsoon forest biogeographic region.
- It is also an important bird sanctuary habituating many migrant species.
- Freshwater fish is a vital protein and source of income for these communities; the health of these people is stated to be directly dependent on the health of this wetland ecosystem.



### About Ramsar Convention:

- The Ramsar Convention is an international agreement promoting the conservation of wetlands.
- The Convention was adopted at Ramsar in Iran in 1971 and came into force in 1975. Almost 90% of the UN member states are part of the Convention.

### What are the Eco-sensitive Zones (ESZs)?

- Eco-Sensitive Zones (ESZs) or Ecologically Fragile Areas (EFAs) are areas notified by the MoEFCC around Protected Areas, National Parks and Wildlife Sanctuaries.
- The purpose of declaring ESZs is to create some kind of “shock absorbers” to the protected areas by regulating and managing the activities around such areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.

- The Environment (Protection) Act, 1986 does not mention the word “Eco-Sensitive Zones”.
- An ESZ could go up to 10 kilometres around a protected area as provided in the Wildlife Conservation Strategy, 2002. Moreover, in the case where sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, are beyond 10 km width, these should be included in the ESZs.

### Why wetlands are Crucial for a Healthy Planet?

- The health of people on our planet depends on healthy wetlands.
- 40% of the world’s species live or breed in wetlands.
- Wetlands are “nurseries of life” – 40% of animals breed in wetlands.
- Wetlands are “kidneys of the earth” – they clean the environment of pollutants.
- Wetlands “matter for climate change” – they store 30% of land based carbon.
- Wetlands “minimize disaster risks” – they absorb storm surge.

### 3. Tech to bring down Human-Elephant Conflict in Gudalur

#### Why in News?

- Prudent use of technology and diligence in the field is actually working now in avoiding wild elephants coming in conflict with human population in Gudalur in The Nilgiris.

#### About the News:

- After using the kumkis, local site effective driving gears such as the pepper aerosol spray, chilly ropes to the Gudalur elephant problem and also the forest officials are instructed to use digital wireless network and the drones.
- After deploying drones from Nilgiris and Gudalur, the elephants have not been found coming out from sholas. Since the elephants usually come to depredate during the night hours and monitoring becomes difficult, the local forest officials were guided to use the drones during the day time to locate the elephants and send the kumkis to push them deeper into the forests towards Kerala and Mudumalai Tiger Reserve (MTR).
- No untoward incident has happened during the past few nights due to the wild elephants and at present they are loitering along Kerala border.

#### What is the concern?

- Gudalur has been in the centre of the human-elephant conflict for the past few decades with research studies indicating that the disappearance of forest cover and swamp lands, and the associated micro habitats, had led to this trend.

- The death of humans, more males than females, after attacked by the wild elephants and the number of deaths of elephants caused by human beings has also been high in the Gudalur range in the past few decades.
- Likewise, the property damaged by elephants has also been high in the range.

### What is Human-Elephant Conflict?

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

### Why Human-Elephant conflicts occur?

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

### Key Facts Regarding the Conflicts:

- Between 2015 and 2020, nearly 2,500 people have lost their lives in elephant attacks across India out of which about 170 human fatalities have been reported in Karnataka alone, according to KVIC.



- India has the largest number of wild Asian Elephants, estimated at 29,964 according to the 2017 census by Project Elephant. The figure amounts to about 60% of the species' global population.
- Over 500 humans are killed in encounters with elephants annually, and crops and property worth Millions are also damaged. Many elephants are also killed in retaliation due to conflict.

### **Other Practices to Ward of Elephants:**

- A pilot project launched in Kodagu entails installing bee boxes along the periphery of the forest and the villages with the belief that the elephants will not venture anywhere close to the bees and thus avoid transgressing into human landscape. This idea stems from the elephants' proven fear of the bees.
- A variety of management strategies and practices has been developed and customised for implementing at different scales by the State Forest Departments for preventing and mitigating human-elephant conflict.
- These best practices have been discussed under several categories such as retaining elephants in their natural habitats by creating water sources and management of forest fires.
- The other best practices include elephant-proof trenches in Tamil Nadu, hanging fences and rubble walls in Karnataka, use of chilli smoke in north Bengal and playing the sound of bees or carnivores in Assam.

### **Use of Technology in Avoiding Conflicts:**

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

### **Innovative Practices around the world to Minimise Human-Elephant conflicts:**

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

- Solar powered electric fences keep crop-raiding elephants out of fields in Africa.
- In Canada, they constructed wildlife corridors, areas of preserved native habitat in human dominated regions, providing wildlife with a safe pathway as they travel between one to another.

### About Asian Elephants:

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

### What are the its Conservation Efforts?

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

## 4. Uphold Rights of Women in Mental Health Centres, says SC

### Why in News?

- The Supreme Court has given the State governments and the Union Territories three months to take measures and ‘alleviate’ the violation of human rights suffered by women institutionalised in government-run Mental Health Establishments.

### About the News:

- A Bench of Justices based its order on research conducted by NIMHANS, in 2016, and the National Commission of Women, as recently as in 2020, about the deprivations suffered by hundreds of mentally-ill women in institutional care.

- The Bench highlighted that the research on the plight of these women indicates gross violation of the Mental Healthcare Act and other laws.
- They did not enjoy basic rights guaranteed under the Constitution like dignity and privacy, the studies showed.

### **What are the Major Concerns?**

- The women, the court quoted from the research, were denied sanitary napkins.
- Mothers were not allowed to keep their children. There were no separate mother-child wards in many of the government-run institutions.
- In fact, none of the women were remotely given a semblance of privacy.
- Their hair was shorn off and the authorities did not arrange any identity documents like Aadhaar.
- They were neither given disability certificates nor cleared for disability pension.

### **What did the Court Ordered?**

- The court directed the Ministry to take up the issues in the monthly meetings it had ordered to be held between the Centre and the State governments to monitor the progress in the establishment of half-way homes for cured mentally-ill persons who needed a place to stay.
- The court was shocked to find that States like Maharashtra and Uttar Pradesh have been pushing cured patients into beggar homes, women's hostels and old-age homes which double up as half-way and rehabilitation homes.
- The court has directed the Centre to create an online dashboard for States to individually provide real-time data on half-way homes, facilities provided, capacity, occupancy and their region-wise distribution.
- The States have to update the data within four weeks of the creation of the online dashboard by the Centre.

### **About Right to Life (Article 21):**

- No person shall be deprived of his life or personal liberty except according to procedure established by law.
- It confers on every person the fundamental right to life and personal liberty.

### **How does Right to Privacy and Live with Dignity encompass with Article 21?**

- In 2017, the Right to Privacy was declared a fundamental right by the Supreme Court in its landmark verdict.

- The court said at the time that “the right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution”.
- In *Maneka Gandhi v. Union of India* 1978, the SC gave a new dimension to Article 21 and held that the right to live is not merely a physical right but includes within its ambit the right to live with human dignity.

## 5. SC Collegium Clears 68 Names for HC Judges

### Why in News?

- Within days of successfully getting nine new judges appointed to the Supreme Court in one go, the apex court Collegium led by Chief Justice of India N.V. Ramana has, in yet another first, recommended 68 names in one stroke for elevation as judges of various High Courts.

### What is Collegium System?

- It is the system of appointment and transfer of judges that has evolved through judgments of the SC, and not by an Act of Parliament or by a provision of the Constitution.
- The SC collegium is headed by the CJI and comprises four other senior most judges of the court.
- A HC collegium is led by its Chief Justice and four other senior most judges of that court.
- Names recommended for appointment by a HC collegium reaches the government only after approval by the CJI and the SC collegium.
- Judges of the higher judiciary are appointed only through the collegium system and the government has a role only after names have been decided by the collegium.
- The government’s role is limited to getting an inquiry conducted by the Intelligence Bureau (IB) if a lawyer is to be elevated as a judge in a High Court or the Supreme Court.
  - ✓ **Intelligence Bureau (IB):** It is a reputed and established intelligence agency. It is authoritatively controlled by the Ministry of Home Affairs.
  - ✓ It can also raise objections and seek clarifications regarding the collegium’s choices, but if the collegium reiterates the same names, the government is bound, under Constitution Bench judgments, to appoint them as judges.

### Evolution of the Collegium System:

- **First Judges Case (1981):**
  - ✓ It declared that the “primacy” of the Chief Justice of India (CJI)s recommendation on judicial appointments and transfers can be refused for “cogent reasons.”

- ✓ The ruling gave the Executive primacy over the Judiciary in judicial appointments for the next 12 years.
- **Second Judges Case (1993):**
  - ✓ SC introduced the Collegium system, holding that “consultation” really meant “concurrence”. It added that it was not the CJI’s individual opinion, but an institutional opinion formed in consultation with the two senior-most judges in the SC.
- **Third Judges Case (1998):**
  - ✓ SC on President’s reference expanded the Collegium to a five-member body, comprising the CJI and four of his senior-most colleagues.

### Procedure for Various Judicial Appointments:

- **For CJI:**
  - ✓ The President of India appoints the CJI and the other SC judges.
  - ✓ As far as the CJI is concerned, the outgoing CJI recommends his successor.
  - ✓ In practice, it has been strictly by seniority ever since the supersession controversy of the 1970s.
- **For SC Judges:**
  - ✓ For other judges of the SC, the proposal is initiated by the CJI.
  - ✓ The CJI consults the rest of the Collegium members, as well as the senior-most judge of the court hailing from the High Court to which the recommended person belongs.
  - ✓ The consultees must record their opinions in writing and it should form part of the file.
  - ✓ The Collegium sends the recommendation to the Law Minister, who forwards it to the Prime Minister to advise the President.
- **For Chief Justice of High Courts:**
  - ✓ The Chief Justice of High Court is appointed as per the policy of having Chief Justices from outside the respective States.
  - ✓ The Collegium takes the call on the elevation.
  - ✓ High Court judges are recommended by a Collegium comprising the CJI and two senior-most judges. The proposal, however, is initiated by the outgoing Chief Justice of the High Court concerned in consultation with two senior-most colleagues.
  - ✓ The recommendation is sent to the Chief Minister, who advises the Governor to send the proposal to the Union Law Minister.

### Criticism of the Collegium System:

- Opaqueness and a lack of transparency.



- Scope for nepotism.
- Embroilment in public controversies.
- Overlooks several talented junior judges and advocates.

### Attempts to reform the Appointment System:

- The attempt made to replace it by a 'National Judicial Appointments Commission' was struck down by the court in 2015 on the ground that it posed a threat to the independence of the Judiciary.

### Related Constitutional Provisions:

- Article 124(2) of the Indian Constitution provides that the Judges of the Supreme Court are appointed by the President after consultation with such a number of the Judges of the Supreme Court and of the High Courts in the States as the President may deem necessary for the purpose.
- Article 217 of the Indian Constitution states that the Judge of a High Court shall be appointed by the President consultation with the Chief Justice of India, the Governor of the State, and, in the case of appointment of a Judge other than the Chief Justice, the Chief Justice of the High Court.

### Way Forward:

- Filling up of vacancies is a continuous and collaborative process involving the executive and the judiciary, and there cannot be a time frame for it.
- However, it is time to think of a Permanent, Independent body to Institutionalize the process with adequate safeguards to preserve the judiciary's independence guaranteeing judicial primacy but not judicial exclusivity. It should ensure independence, reflect diversity, demonstrate professional competence and integrity.
- Instead of selecting the number of judges required against a certain number of vacancies, the collegium must provide a panel of possible names to the President to appoint in order of preference and other Valid Criteria.

## 6. Supreme Court Rejects Bengal's plea on DGP Appointment

### Why in News?

- The Supreme Court recently refused to entertain a West Bengal plea questioning the authority of the Union Public Service Commission (UPSC) to shortlist the names for Director Generals of Police (DGPs) based on a Judgment of the court.

## About the News:

- The State's plea came at a time when the CBI has written to the West Bengal DGP office for information about the alleged incidents of murder and rape in the post poll violence in the State.

## What is the Issue?

- West Bengal argued that the power granted to the UPSC, a Central body, to prepare the panel was a direct attack on the federal structure of governance. The subject of 'police' belonged to the State list. In its application, West Bengal said the 2006 judgment was "not in consonance with extant constitutional and legal framework". The State has the autonomy to select the DGP. It argued, "The Constitution does not vest the UPSC with the power to assess the respective merit of the officers holding the rank of DGP in the State for determining the fitness to be appointed as the DGP, Head of Police Force of the State. It is the State government which can have the proximate opportunity to assess the fitness of officers."

## What were the Guidelines given by SC to appoint the Police Chief?

- Earlier In July 2018, the Supreme Court had refrained State governments from appointing DGPs without first consulting the Union Public Service Commission (UPSC). It came up with the following guidelines:
  - ✓ The State governments concerned have to send UPSC the names of the probables three months before the incumbent DGPs are to retire.
  - ✓ The UPSC will prepare a panel of three officers fit to be DGP and send it back.
  - ✓ The UPSC shall, as far as practicable, choose the people within the zone of consideration who have got a clear two years of service and must give due weightage to merit and Seniority. The State, in turn, shall "immediately" appoint one of the persons shortlisted by the UPSC.
  - ✓ On the practice of States appointing "Acting DGPs", the court rejected the idea of acting or temporary DGPs, i.e.. States shall appoint a person as permanent DGP.
- The court also ruled that any rule or state law on the subject of appointment of police officers will be kept in suspension. However, the States, which have made laws on police appointments, can move to court seeking Modifications of its order.

## About Prakash Singh Case:

- In Prakash Singh Case of 2006, the Supreme Court gave 7 directives with a view to bring in police reforms. In passing these directives the Court put on record the deep rooted problems of politicization, lack of accountability mechanisms and systemic weaknesses that have

resulted in poor all round performance and fomented present public dissatisfaction with policing. The directives are:-

- Constitute a State Security Commission (SSC) to:
  - ✓ Ensure that the state government does not exercise unwarranted influence or pressure on the police,
  - ✓ Lay down broad policy guideline and
  - ✓ Evaluate the performance of the state police.
- ✓ Ensure that the DGP is appointed through merit based transparent process and secure a minimum tenure of two years.
- ✓ Ensure that other police officers on operational duties (including Superintendents of Police in-charge of a district and Station House Officers in-charge of a police station) are also provided a minimum tenure of two years.
- ✓ Separate the investigation and law & order functions of the police.
- ✓ Set up a Police Establishment Board (PEB) to decide transfers, postings, promotions and other service related matters of police officers of and below the rank of Deputy Superintendent of Police and make recommendations on postings and transfers above the rank of Deputy Superintendent of Police.
- ✓ Set up a Police Complaints Authority (PCA) at state level to inquire into public complaints against police officers of and above the rank of Deputy Superintendent of Police in cases of serious misconduct, including custodial death, grievous hurt, or rape in police custody and at district levels to inquire into public complaints against the police personnel below the rank of Deputy Superintendent of Police in cases of serious misconduct.
- ✓ Set up a National Security Commission (NSC) at the union level to prepare a panel for selection and placement of Chiefs of the Central Police Organisations (CPO) with a minimum tenure of two years.

### Way Forward:

- The Judgement limits significantly the discretion enjoyed by the political executive in effecting transfers at whims and fancies of the political executive.
- The police force should be insulated from political encroachment into their hierarchy. The commitment, devotion and accountability of the police has to be only to the rule of law and not persons.
- Arbitrary appointments and postings challenges the ethics of public services from political class on one hand and creates instability in the administration.

- Moreover, this also makes officers in services vulnerable to political interferences, pressures and favoritism leading to corruption in long run in pursuit of power, praise and Money.

## 7. Only locals in Ladakh to get Resident Certificate

### Why in News?

- The Ladakh administration has decided to issue “Resident Certificate” only to the Permanent Resident Certificate holders of the region, unlike J&K where new domicile laws allowed outsiders too to apply for jobs, land and other Facilities.

### What does the order says?

- According to the Ladakh Resident Certificate Order 2021 passed recently, “any person who possesses a Permanent Resident Certificate (PRC) issued by the competent authority in the districts of Leh and Kargil or belongs to a category of persons who would have been eligible to be issued PRC shall be eligible to receive the ‘Resident Certificate’.”
- The order, temporarily define ‘Resident of Union Territory of Ladakh’ for the purpose of appointment to all the non-gazetted posts borne on the establishment of any department or service of administration of Ladakh”.
- All the Tehsildars have been authorised competent authority to issue the ‘Resident Certificate’.
- The Administration also enhanced the upper age limit for entry into government services against all posts. The upper age limit has been enhanced for the reserved category candidates from 43 years to 45 years, for the general category candidates from 40 to 42 years and for the physically challenged candidates from 42 to 44 years.
- The age relaxation would be a one-time exception and this relaxation shall remain in force for Two Years.

### What is Domicile?

- In law, domicile is the status or attribution of being a lawful permanent resident in a Particular Jurisdiction.

### As per the Changes, who is now deemed to have Domicile of J&K?

- Anyone “who has resided for a period of fifteen years in the UT of J&K”.
- Or has studied for a period of seven years and appeared in class 10th/12th examination in an educational institution located in the UT of J&K.
- Or those registered as migrants and their children.

- Or the children of those central government officials, All India service officials, Officials of Public sector undertaking, autonomous body of central government, public sector banks, officials of statutory bodies officials of central universities and recognized research institutes of central government who have served in J&K for a period of ten years.
- Or children of residents of J&K who reside outside the Union Territory in connection with employment or business or for other professional or vocational reasons, but whose parents fulfil any of the conditions provided in the latest gazette notification will also be entitled to domicile status.
- “In exercise of the powers conferred by proviso to Article 309 of the Constitution of India read with Section of the J&K Civil Service (Decentralisation and recruitment) Act, 2010, the government hereby grants domicile certificates to spouse of a domicile.
- According to ‘J&K Grant of Domicile Certificate Procedure Rules 2020’, domicile certificates will be issued to all Permanent Resident Certificate holders and their children living outside the Union Territory.

### What else the J&K Order Says?

- The Order says that the domiciles will be eligible for the purposes of appointment to any post carrying a pay scale of not more than Level 4.
- The Level 4 post comprises positions such as gardeners, barbers, office peons and watermen, and the highest rank in the category is that of a Junior Assistant.

### Who can Issue Domicile Certificates in J&K?

- The orders also empower tahsildars to issue domicile certificates.
- The Government has been empowered to notify any other officer as the competent authority to issue the certificate.

### Implications:

- The order formally allows people from outside J&K to apply for jobs in J&K, but not in Ladakh. While Level IV jobs have been reserved for people with domicile status – as per their definition in the order – other non-gazetted and gazetted jobs have been opened for people from across the country, including people domiciled in J&K.

## 8. SC urges Centre to fill Tribunals Vacancies

### Why in News?

- A Special Bench of the Supreme Court, recently said the Centre should conform and fill the long-pending vacancies in key tribunals by the next hearing on September 13.



## About the News:

- The court issued notice and asked the government to reply to a series of petitions, including one by Rajya Sabha member Jairam Ramesh, challenging the legality of the Tribunal Reforms Act, 2021. Mr. Ramesh, represented by senior advocate A.M. Singhvi, said the 2021 Act abolished nine key tribunals, raised a serious threat to judicial independence by giving the government wide powers regarding appointments, service conditions and salaries of members of Key Tribunals. Many tribunals operated with just one member as no appointments had been made for Months and Years.

## What are Tribunals?

- Tribunal is a quasi-judicial institution that is set up to deal with problems such as resolving administrative or tax-related disputes. It performs a number of functions like adjudicating disputes, determining rights between contesting parties, making an Administrative Decision, Reviewing an existing Administrative decision and so forth.

## Constitutional Provisions:

- They were not originally a part of the Constitution.
- The 42<sup>nd</sup> Amendment Act introduced these provisions in accordance with the recommendations of the Swaran Singh Committee.
- The Amendment introduced Part XIV-A to the Constitution, which deals with 'Tribunals' and contains **Two Articles**:
  - ✓ Article 323A deals with Administrative Tribunals. These are quasi-judicial institutions that resolve disputes related to the recruitment and service conditions of persons engaged in public service.
  - ✓ Article 323B deals with tribunals for other subjects such as Taxation, Industrial and labour, Foreign exchange, import and export, Land reforms, Food, Ceiling on urban property, Elections to Parliament and state legislatures, Rent and tenancy rights.

## About the Tribunals Reforms (Rationalisation and Conditions of Service) Bill, 2021:

- The proposed changes are based on the directions issued by the Supreme Court in the Madras Bar Association case.
- It seeks to dissolve certain existing appellate bodies and transfer their functions to other Existing Judicial Bodies.
- It seeks to empower the Central Government to make rules for qualifications, appointment, term of office, salaries and allowances, resignation, removal and other terms and conditions of service of Members of Tribunals.

- It provides that the Chairperson and Members of the Tribunals will be appointed by the Central Government on the recommendation of a Search-cum-Selection Committee.
- It also provides the composition of the Committee, to be headed by the Chief Justice of India or a Judge of Supreme Court nominated by him.
- For state tribunals, there will be a separate search committee.
- The Union government has to 'preferably' decide on the recommendations of the search-cum selection committee within 3 months of the date of the recommendation.
- Tenure: Chairperson of a Tribunal shall hold office for a term of 4 years or till he attains the age of 70 years, whichever is earlier. Other Members of a Tribunal shall hold office for a term of 4 years or till he attains the age of 67 years, whichever is earlier.

## 9. Assam Cattle Preservation Act, 2021

### Why in News?

- Various pressure groups in Assam groups recently held a rally against the Assam Cattle Preservation Act, 2021, stating that the law was an assault on the farm economy in the name of religion.

### What are the Highlights of the Law?

- It is aimed at regulating slaughter, consumption and transportation of cattle.
- Slaughter of cow, calf and heifer is prohibited.
- Transportation of cattle from or through Assam is prohibited.
- Sale of beef or beef products is prohibited in areas predominantly inhabited by Hindu, Jains, Sikhs, and other non-beef eating communities.
- Sale of beef or beef products is prohibited within a 5-km radius of any temple, satra or other Hindu Religious Institutions.

### Punishment under the Assam Cattle Preservation Bill, 2021 for Violation:

- Those found violating the rules shall be punishable with imprisonment for a term not less than three years and up to eight years or a fine that may vary between Rs 3 lakh and Rs 5 lakh or both.
- If someone convicted is found guilty of the same or a related offence the second time, the Punishment will be Doubled.

### What is the Need for this Law?

- There is a rise of illegal cattle smuggling along the India-Bangladesh border despite the deployment of adequate security forces.

- According to the Union government, the Border Security Forces seized 476,035 head of cattle between 2016 and 2020 along the Indo-Bangla border.

### **Controversial provisions/Criticisms Surrounding the law:**

- The law completely prohibits Cow slaughter irrespective of Any Provisions.
- It prohibits the sale of Beef and beef products within a radius of 5 km from any temple. This seems like a complete restriction on Beef for residents residing within the 5 km radius.
- It specifies who is empowered to inspect, search and detain. The power has been provided to Veterinary Officer, Police Officer (Sub Inspector or above), and any person authorized by the State Government. This also might lead to political or communal misuse.
- The punishments and Fines provided are very extreme. These kinds of punishments are given to a very serious offender in the Indian Penal Code, 1860.

### **Constitutional Provisions Regarding Cattle Preservation:**

- Further in DPSP as per article 48 of Indian Constitution the state shall endeavour to organize agriculture and animal husbandry on modern and scientific lines and shall in particular take steps for preserving improving the breed, and prohibiting the slaughter, of cows and calves and other milch and draught cattle.

### **Background:**

- Assam shares 263 km of border with Bangladesh, out of which 143.9 km is land and 119.1 km is riverine.

### **Challenges Ahead:**

- In Assam, there are many exit points along the porous India-Bangladesh border that facilitate the illicit cattle smuggling. The smuggling also happens through West Bengal and Meghalaya which also share a border with Bangladesh. A couple of years ago, the BSF had identified 65 cattle corridors along the border and had recommended certain measures to stop Cattle Smuggling. Local police officials in Assam often claim that the law doesn't allow them to stop someone from transporting cattle to another state. If accosted, the smugglers can claim that these are personal cattle.

## **10. Cabinet Approves PLI Scheme for Textile Sector**

### **Why in News?**

- The Union government has recently approved production-linked incentive (PLI) for the textile sector with a budgetary outlay of ₹10,683 crore.

## About the News:

- The scheme is for man-made fibre (MMF) apparel, MMF fabrics and 10 segments/products of technical textiles. According to an official statement, the incentive structure for the textile sector is designed to encourage investment in fresh capacities in MMF apparel, MMF fabrics, and 10 segments or products of technical textiles.
- The scheme envisages two types of investment with different set of incentive structure. In type one, any person, (which includes firm/company) willing to invest minimum ₹300 crore in plant, machinery, and civil works (excluding land and administrative building cost) to produce the notified products will be able to participate in the scheme. In the second type, anyone willing to invest minimum ₹100 crore will be eligible to participate.
- The government has already launched a National Technical Textiles Mission to promote research and development in that sector.

## What is its Significance?

- The scheme is expected to attract fresh investment of more than ₹19,000 crore and cumulative turnover of over ₹3 lakh crore will be achieved under this scheme. It will create additional 7.5 lakh jobs in the sector.
- Further, priority will be given for investment in aspirational districts, tier-three, tier-four towns and rural areas.
- The scheme will benefit States such as Gujarat, U.P., Maharashtra, Tamil Nadu, Punjab, Andhra Pradesh, Telangana, and Odisha.

## About the Textile Sector in India:

- Textiles & garments industry is labour intensive sector that employs 45 mn people in India and is second only to the agriculture sector in terms of employment.
- India's textiles sector is one of the oldest industries in the Indian economy, and is a storehouse and carrier of traditional skills, heritage and culture.
- It can be divided into two segments-
  - ✓ The unorganised sector is small scale and uses traditional tools and methods. It consists of handloom, handicrafts and sericulture (production of silk).
  - ✓ The organised sector uses modern machinery and techniques and consists of the spinning, apparel and Garments Segment.

## Significance of the Textiles Sector:

- It contributes 2.3% to Indian Gross Domestic Product, 7% of Industrial Output, 12% to the export earnings of India and employs more than 21% of total employment.

- India is the 6th largest producer of Technical Textiles with 6% Global Share, largest producer of cotton & jute in the world.
  - ✓ Technical textiles are functional fabrics that have applications across various industries including automobiles, civil engineering and construction, agriculture, healthcare, industrial safety, personal protection etc.
- India is also the second largest producer of silk in the world and 95% of the world's hand woven fabric comes from India.

### About the PLI Scheme:

- The scheme aims to make India a global hub for manufacturing telecom equipment.
- Its eligibility criteria include achievement of a minimum threshold of cumulative incremental investment and incremental sales of manufactured goods.
- The incentive structure ranges between 4% and 7% for different categories and years. Financial year 2019-20 will be treated as the base year for computation of cumulative incremental sales of manufactured goods net of taxes.
- Minimum investment threshold for MSMEs has been kept at Rs 10 crore and for others at Rs 100 crore.
- Once qualified, the investor will be incentivised up to 20 times of minimum investment threshold enabling them to utilise their Unused Capacity.

### Why is the Production Linked Scheme Needed?

- According to experts, the idea of PLI is important as the government cannot continue making investments in these capital intensive sectors as they need longer times for start giving the Returns.
- Instead, what it can do is to invite global companies with adequate capital to set up Capacities in India. The kind of ramping up of manufacturing that we need requires across the board initiatives, but the Government can't spread itself too thin.
- Electronics and Pharmaceuticals themselves are large sectors, so, at this point, if the Government can focus on labour intensive sectors like garments and leather, it would be really helpful.

## 11. Centre Hikes MSP for Rabi Crops

### Why in News?

- The Centre has increased the minimum support price (MSP) for wheat for the upcoming rabi season to ₹2,015 per quintal, a 2% hike from the ₹1,975 per quintal rate of last year.



## About the News:

- According to a statement on the decision of the Cabinet Committee on Economic Affairs, oilseeds and pulses such as mustard, safflower and masoor dal saw higher MSP increases of up to 8% in a bid to encourage crop diversification.
- The increased MSPs would ensure remunerative prices to farmers and also encourage them for sowing operations. The expected returns to farmers over their cost of production are estimated to be highest in case of wheat and mustard seed (100% each), followed by lentil (79%), gram (74%); barley (60%) and safflower (50%).

## About MSP:

- In theory, an MSP is the minimum price set by the Government at which farmers can expect to sell their produce for the season. When market prices fall below the announced MSPs, procurement agencies step in to procure the crop and 'support' the prices.

## Who Announces MSP?

- The Cabinet Committee of Economic Affairs announces MSP for various crops at the beginning of each sowing season based on the recommendations of the Commission for Agricultural Costs and Prices (CACP).
- The CACP takes into account demand and supply, the cost of production and price trends in the market among other things when fixing MSPs.

## Why is it Important?

- Price volatility makes life difficult for farmers. Though prices of agri commodities may soar while in short supply, during years of bumper production, prices of the very same commodities plummet. MSPs ensure that farmers get a minimum price for their produce in adverse markets. MSPs have also been used as a tool by the Government to incentivise farmers to grow crops that are in short supply.

## Factors Taken into Consideration for Fixing MSP include:

- Demand and supply;
- Cost of production;
- Price trends in the market, both domestic and international;
- Inter-crop price parity;
- Terms of trade between agriculture and non-agriculture;
- A minimum of 50% as the margin over cost of production; and
- Likely implications of MSP on consumers of that product.

## 12. Activists oppose Centre to select Hydropower Projects in Uttarakhand

### Why in News?

- A group of environmentalists, historians, geologists and intellectuals have petitioned the Union Environment Ministry to recant its endorsement of seven hydroelectric power projects (HEP) in Uttarakhand.

### About the News:

- In February, a devastating flood of rock, ice and debris gushed down the Rishiganga river in Uttarakhand and killed at least 200 and severely damaged two hydropower projects.
- This reignited a longstanding debate on the viability of as many as 49 hydroelectric projects in Uttarakhand.
- However, three Central Ministries — Power, Environment and Water Resources — who initially had divergent views on the future of hydroelectric power projects have agreed to a consensus.

### What's the Issue?

- According to an affidavit filed in the Supreme Court this month, seven — one of them being the 520 MW Tapovan project by the NTPC that was severely damaged this month — have been allowed to complete construction primarily on the grounds that they were over “50% complete”.
- The Jal Shakti Ministry has been opposed to fresh hydropower projects on the grounds that they compromised the natural flow of the Ganga.
- However in 2019, they reached an agreement with the Environment and Power Ministries that some projects in an advance state of construction could continue but no more fresh projects would be allowed.
- The seven projects are the Tehri 2 (1000 MW), Tapovan Vishnugad (520 MW), Vishnugad Pipalkoti (444 MW), Singoli Bhatwari (99 MW), Phata Byung (76 MW), Madhmaheshwar (15 MW), and Kaliganga II (4.5 MW).
- While the February floods wiped out the Rishiganga project, the Tapovan Vishnugad project was one of those severely damaged.

### What's the history of Hydropower Projects in the Himalayas?

- In the aftermath of the Kedarnath floods of 2013 that killed at least 5,000 people, the Supreme Court had halted the development of hydroelectric projects in Uttarakhand pending a review by the Environment Ministry on the role such projects had played in amplifying the disaster.

- A 17-member expert committee, led by environmentalist Ravi Chopra, was set up by the Ministry to examine the role of 24 such proposed hydroelectric projects in the Alaknanda and Bhagirathi basin, which contains the Ganga and several tributaries.
- The Chopra committee concluded that 23 projects would have an “irreversible impact” on the ecology of the region.
- Following this, six private project developers, whose projects were among those recommended to be axed, impleaded themselves in the case on the ground that since their projects had already been cleared for construction before the Kedarnath tragedy, they should be allowed to continue.
- The SC directed a new committee to be set up to examine their case. This committee, led by Vinod Tare of the Indian Institute of Technology, Kanpur, concluded that these projects could have a significant environmental impact.
- The Environment Ministry in 2015 set up yet another committee, led by B.P. Das, who was part of the original committee, but had filed a “dissenting report”. The Das committee recommended all six projects with design modifications to some, and this gives lie to the Environment Ministry’s current stance. The Power Ministry seconded the Environment Ministry’s stance. The Water Resources Ministry, then by that time, has been consistently opposed to hydropower projects in the Ganga.
- In charge of the National Mission for Clean Ganga, the Water Ministry has maintained that the cleanliness of the river was premised on minimum levels of water flow in all seasons and the proposed projects could hinder this. By 2019, however, the renamed Jal Shakti Ministry had changed its stance to accommodate seven out of the 24 projects.
- Its current position however is that barring these, it is “not in favour” of new projects in the Ganga river basin.
- Though hearings in the SC are ongoing, this is the first time that the Government has a formal uniform position on hydropower projects in the Uttarakhand region.
- In Feb 2021 also, Uttarakhand floods washed away at least two hydroelectric power projects – the 13.2 MW Rishiganga hydroelectric power project and the Tapovan project on the Dhauliganga river, a tributary of the Alakananda. This was due to the break in the Raunthi glacier that triggered floods in the Rishiganga river.

### **Importance of Himalayas and Threat of degradation:**

- The Himalayan range is a transnational mountain chain and is the chief driver of the Asian climate.

- It is a source for numerous Asian river systems and glaciers which are now under the threat of degradation and retreat due to global warming; these river systems provide water for billions of people.
- This legacy of humanity has now become highly contentious with territorial disputes between two nuclear powers – India and China.
- The ongoing low-level military confrontations between these two countries have led to demands for further infrastructural development on both sides, including all-weather roads, much to the peril of regional biodiversity and the livelihoods of the indigenous population.
- High seismic zones coincide with areas of high population concentration in the Himalayan region where landslides and glacial lake outburst floods are common.
- About 15% of the great earthquakes of the 20th century (with a magnitude of more than 8) occurred in the Himalayan region.
- The northeast Himalayan bend has experienced several large earthquakes of magnitude 7 and above in the last 100 years, more than the share from other parts of the Himalayas.
- In a recent article in Nature, Maharaj K. Pandit, a Himalayan ecologist, says in recent years, the Himalayas have seen the highest rate of deforestation and land use changes.
- He suggests that the upper Himalayas should be converted into a nature reserve by an international agreement.
- He also says the possibility of a Himalayan River Commission involving all the headwater and downstream countries needs to be explored.

### **What are the challenges such Projects Face?**

- Following the break in the Raunthi glacier that triggered floods in the Rishiganga river in Uttarakhand on February 7, which washed away at least two hydroelectric power projects, environmental experts have attributed the glacial melt to global warming.
- Glacier retreat and permafrost thaw are projected to decrease the stability of mountain slopes and increase the number and area of glacier lakes.
- Climate change has driven erratic weather patterns like increased snowfall and rainfall.
- The thermal profile of ice, say experts, was increasing, which means that the temperature of ice that used to range from -6 to -20 degree C, was now -2 degree C, making it more susceptible to melting. It was these changing phenomena that made infrastructure projects in the Himalayan regions risky.
- Expert committees recommend that there should be no hydropower development beyond an elevation of 2,200 metre in the Himalayan region.

- Moreover, with increased instances of cloudbursts, and intense spells of rainfall and avalanches, residents of the region were also placed at increased risk of loss of lives and livelihood.

### How can these Conflicts be Resolved?

- The challenges facing development in the Himalayan region are multi-faceted.
- The Uttarakhand government has said that it's paying over ₹1,000 crore annually to purchase electricity and therefore, the more such projects are cancelled, the harder for them to meet their development obligations.
- Several environmentalists, residents of the region, say that the proposed projects being built by private companies allot only a limited percentage of their produced power for the State of Uttarakhand itself. Thus, the State, on its own, takes on massive environmental risk without being adequately compensated for it or its unique challenges accounted for.
- Several environmental activists say that the Centre has frequently changed its position and will continue to prioritise Infrastructural Development in the region, even if it comes at a heavy Environmental Cost.

### 13. NATGRID to Finally see Light of Day

#### Why in News?

- Prime Minister Narendra Modi is soon expected to launch the National Intelligence Grid or NATGRID that aims to provide a cutting-edge technology to enhance India's Counter-Terror Capabilities.

#### About the News:

- First conceptualised in 2009, NATGRID seeks to become the one-stop destination for security and intelligence agencies to access database related to immigration entry and exit, banking and telephone details of a suspect on a "secured platform". The project was aimed to go live by December 31, 2020, but due to the COVID pandemic it has been delayed.
- The MoU, signed in March 2020, will give NATGRID access to the Crime and Criminal Tracking Network and Systems (CCTNS) database, a platform that links around 14,000 police stations. All State police are mandated to file First Information Reports (FIR) in the CCTNS.

#### What is NATGRID?

- It is an ambitious counter terrorism programme initiated post Mumbai 26/11 attack.



- It will utilise technologies like Big Data and analytics to study and analyse the huge amounts of data from various intelligence and enforcement agencies to help track suspected terrorists and prevent terrorist attacks.
- It will connect, in different phases, data providing organisations and users besides developing a legal structure through which information can be accessed by the law enforcement agencies.
- The database would be accessible to authorised persons from 11 agencies on a case-to-case basis, and only for Professional Investigations into suspected cases of terrorism.

### **Criticisms of the NATGRID:**

- NATGRID is facing opposition on charges of possible violations of privacy and leakage of Confidential Personal Information.
- Its efficacy in preventing terror has also been questioned given that no state agency or police force has access to its database thus reducing chances of immediate, effective action.
- According to few experts, digital databases such as NATGRID can be misused. Over the last two decades, the very digital tools that terrorists use have also become great weapons to fight the ideologies of violence.
- Intelligence agencies have also opposed amid fears that it would impinge on their territory and possibly result in leaks on the leads they were working on to other agencies.

### **Why do we need NATGRID?**

- The danger from not having a sophisticated tool like the NATGRID is that it forces the police to rely on harsh and coercive means to extract information in a crude and degrading fashion.
- After every terrorist incident, it goes about rounding up suspects—many of who are innocent. If, instead, a pattern search and recognition system were in place, these violations of human rights would be much fewer.
- Natgrid would also help the Intelligence Bureau keep a tab on persons with suspicious backgrounds.
- The police would have access to all his data and any movement by this person would also be tracked with the help of this data base.

## **14. TN Assembly passes bill against NEET**

### **Why in News?**

- The Tamil Nadu Assembly recently passed a Bill seeking to ‘dispense’ with the requirement for candidates to qualify in the National Eligibility-cum-Entrance Test (NEET) for admission to undergraduate medical courses in the State.

## About the News:

- The Tamil Nadu Admission to Undergraduate Medical Degree Courses Bill, 2021 further sought to provide admission to these courses on the basis of the marks obtained in the qualifying examination [Class XII marks in Tamil Nadu] through “normalisation methods”, as was done before 2017.
- Two similar legislation passed in the Assembly during the erstwhile AIADMK regime did not receive the Presidential Assent.

## What was TN Government’s Argument?

- The Bill, moved by Chief Minister M.K. Stalin, contended that admission to medical courses was traceable to entry 25 of List III, Schedule VII of the Constitution, and the State was “competent to regulate” the same for the underprivileged social groups.
- NEET festers inequality as it favours the rich and the more privileged class of society, who are able to afford special coaching apart from pursuing Class XII. It virtually barricades the underprivileged social groups from medical and dental education.
- It also argued that NEET was against the equality clause enshrined in the Constitution.
- After the UG course, students from the affluent class do not serve in rural areas, and often pursue postgraduate courses abroad, adding that the number of serving doctors in the State was declining.
- The standard of medical education is maintained during the UG course by following the syllabus and curriculum prescribed by the National Medical Commission and through exams conducted by the university before awarding the degree.
- Students who are not able to pass the university exams are not awarded degrees. Therefore, it is not during the admission stage that the standard of medical education is maintained.
- The Bill said its aim was to ensure social justice, uphold equality and equal opportunity, protect all vulnerable student communities from discrimination and bring them into the mainstream of medical and dental education and, in turn, ensure robust public healthcare across Tamil Nadu, particularly in the rural areas.

## What did A.K. Rajan Committee Reported?

- The government’s decision followed a report from a high-level committee, headed by the retired High Court judge, Justice A.K. Rajan, which said NEET had “clearly undermined” the diverse societal representation in MBBS and higher medical studies, favouring mainly the affluent segment of society, while thwarting the dream of the underprivileged social groups to pursue medical education.

- The panel concluded that if NEET continued for a few more years, the healthcare system of Tamil Nadu would be “very badly affected, and there may not be enough doctors” to be posted at Primary Health Centres or government hospitals, and the rural and urban poor may not be able to join the medical courses.
- It was in favour of immediate steps to eliminate NEET from being used in admission to medical programmes “at all levels”. It further contended that NEET was not a fair or equitable method of admission, since it ‘favoured’ the rich and elite sections of society. The most affected groups were the students of Tamil medium; students having a rural background; those from government schools; those whose parental income was less than ₹2.5 lakh per annum; and socially disadvantaged groups like the Most Backward Classes (MBCs), the Scheduled Castes (SCs) and the Scheduled Tribes (STs). Based on the report, the State government decided that admission to undergraduate courses in medicine, dentistry, Indian medicine and homoeopathy in the State shall be made only based on the marks obtained in the qualifying examination (Plus-Two).

### Can a state Negate Central Laws?

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

### How can states use this Provision?

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

### What all is Covered under Concurrent List?

- The concurrent list provides a rich set of topics for the states to take a lead in reform. It covers areas such as criminal law and procedure, marriage, divorce and adoption, bankruptcy and insolvency, social security, education (including technical and medical education) and Electricity. Agriculture' has been placed as Entry 14 in the State List along with several ancillary matters, while some agriculture-related items have been included in the Union List and the Concurrent List.

## Will this Provision help the States?

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

## What happens if President does not Give Consent?

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

## Can states approach the Supreme Court Challenging the Central Law?

- States can approach the Supreme Court under Article 131 — invoking the court's "original jurisdiction" — that allows a state to file a suit in the Supreme Court in case of any dispute that it may have with the Central Government. Article 131 could be used to examine the Constitutionality of a statute.

## 3.1. POLITY AND GOVERNANCE SNIPPETS

### 1. Darjeeling Himalayan Railways

#### Why in News?

- The concerns were raised recently against the Centre's proposed monetisation of the Darjeeling Himalayan Railways (DHR).

#### Highlights:

- It was built in the British era between 1879 and 1881.
- It is located in the foothills of the Himalayas in West Bengal.
- It is the most outstanding example of a hill passenger railway. Opened in 1881, its design applies bold and ingenious engineering solutions to the problem of establishing an effective rail link across a mountainous terrain of great beauty. It was declared a UNESCO (United Nations Educational, Scientific and Cultural Organization) World Heritage Site in 1999. A World Heritage Site is a place that is listed by UNESCO for its special cultural or physical significance. The list of World Heritage Sites is maintained by the international 'World Heritage Programme', administered by the UNESCO World Heritage Committee.
- This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972. India has 40 world heritage sites, 32 cultural, 7 natural and 1 mixed.

## 2. Loan Guarantee Scheme for Covid-Affected Sectors (LGSCAS)

### Why in News?

- The Finance Minister has recently asked all stakeholders to conclude Rs 50,000 crore Loan Guarantee Scheme for Covid-Affected Sectors (LGSCAS) in non-metros in time to deal with any future third wave.

### Highlights:

- The LGSCAS scheme is aimed at boosting medical infrastructure in the country, specifically targeting underserved areas.
- It was approved by the government in June 2021. The Banks would provide loans for building healthcare infrastructure in non-metro cities and smaller towns at a maximum interest rate of 7.95%. It provides a guarantee of 50% for brownfield projects and 75% to greenfield projects for loans sanctioned up to Rs.100 crore, set up at urban or rural locations other than 8 Metropolitan Tier 1 cities (Class X cities).
- For aspirational districts, the guarantee cover for both brownfield expansion and greenfield projects is 75%. Guarantee duration is up to 3 years.
- Greenfield describes a completely new project that has to be executed from scratch, while a brownfield project is one that has been worked on by others.
- Will help the country in shoring up its much-needed healthcare infrastructure along with creating more employment opportunities. The main objective of LGSCAS is to partially mitigate credit risk (primarily construction risk) and facilitate bank credit at lower rates of interest. Applicable to all eligible loans sanctioned up to 31st March, 2022 or till an amount of Rs. 50,000 crore is sanctioned, whichever is earlier.

## 3. Glue Grant Scheme

### Why in News?

- Forty Central universities will kick off the implementation of innovative measures such as the Academic Credit Bank and the glue Grant meant to Encourage Multidisciplinary in UG courses.

### Glue Grant Scheme:

- Under the glue grant, announced in this year's budget, institutions in the same city would be encouraged to share resources, equipment and even allow their students to take classes from each other. This is the First Step for Multidisciplinary.



- We intend to start this from the second semester of the current academic year.
- Ultimately, faculty will be able to design joint courses.
- This also meant that institutions need not duplicate work by developing the same capacities, but would be able to build on each other's expertise.

#### Credit bank:

- The first step would be the academic credit bank, which would have to be adopted separately by the academic council of each university to kick off implementation.
- To start with, the system would allow students to attain qualifications by amassing credits rather than specific durations on campus.
- A certain number of credits would add up to a certificate, then a diploma and then a degree, allowing for multiple entry and exit points.
- Students can earn up to 40% of their credits in online Swayam classes, rather than in the Physical classroom. In the future, these credits will hold validity across different Institutions.

#### 4. The Nutrition-Hygiene Link

##### Why in News?

- A recent UNICEF report stated that nearly 12 lakh children could die in low-income countries in the next six months due to a decrease in routine health services and an increase in wasting. Nearly three lakh such children would be from India.

##### Problem of Nutrition in India and Factors Responsible for it:

- The National Family Health Survey (NFHS 5) indicates that since the onset of the pandemic, acute undernourishment in children below the age of five has worsened.
- According to the latest data, 37.9 per cent of children under five are stunted, and 20.8 per cent are wasted — a form of malnutrition in which children are too thin for their height.
- Comparison with other countries: This is much higher than in other developing countries where, on average, 25 per cent of children suffer from stunting and 8.9 per cent are wasted.
- **Factors:** Inadequate dietary intake is the most direct cause of undernutrition.
- Several other factors also affect nutritional outcomes, such as contaminated drinking water, poor sanitation, and unhygienic living conditions.
- According to the World Health Organisation, 50 per cent of all mal- and under-nutrition can be traced to diarrhoea and intestinal worm infections.

- Nutrition and water, sanitation, and hygiene (WASH) are intricately linked, and changes in one tend, directly or indirectly, to affect the other.
- Poor hygiene and sanitation in developing countries leads to a sub-clinical condition called “environmental enteropathy” in children. Environmental enteropathy is a disorder of the intestine which prevents the proper absorption of nutrients, rendering them effectively useless. Childhood diarrhoea is a major public health problem in low- and middle-income countries, leading to high mortality in children under five.
- According to NFHS 4, approximately 9 per cent of children under five years of age in India Experience Diarrhoeal Disease.

### Way Forward:

- **Investment in WAST:** The link between WASH and nutrition suggests that greater attention to, and investments in, WASH are a sure-shot way of bolstering the country’s nutritional status.
- **Addressing Nutrition Sanitation Problems Together:** Both WASH and nutrition must be addressed together through a lens of holistic, sustainable community engagement to enable long-term impact.
- One of the first instances of the link between WASH and nutrition appeared in the Convention on the Rights of the Child in 1989, which urges states to ensure “adequate nutritious foods and clean drinking water” to combat disease and malnutrition.
- Safe drinking water, proper sanitation and hygiene can significantly reduce diarrhoeal and nutritional deaths.
- **Multistructural Approach:** What we require is a coordinated, multisectoral approach among the health, water, sanitation, and hygiene bodies, not to mention strong community engagement. WHO has estimated that access to proper water, hygiene and sanitation can prevent the deaths of at least 8,60,000 children a year caused by undernutrition.
- At the end of the day, all sides are working towards a common goal: A safe and healthy population and the hope that the 75th year of Independence becomes a watershed moment in India’s journey.

## 5. Right to Sit to be mandated in Tamil Nadu

### Why in News?

- The Tamil Nadu government has tabled a Bill in the Legislative Assembly making it mandatory for establishments to provide seating facilities for employees.

## Right to Sit:

- The Right to Sit is aimed to benefit thousands of employees of large and small establishments, particularly those working in textile and jewelry showrooms.
- Persons employed in shops and establishments in the State are made to stand throughout their duty time resulting in varied health issues.
- The bill mandates for every premises of establishments to have suitable seating arrangements for all employees so that they may take advantage of any opportunity to sit in the course of their work.
- This would avoid the ‘on their toes’ situation throughout the working hours.

## Inspired from Kerala:

- A few years ago, workers of textile showrooms in Kerala had gone on a protest demanding the ‘Right to Sit’, prompting the government there to amend the Kerala Shops and Establishments Act in 2018.
- This in turn provided seating arrangements for them.

## A Move for Women:

- Most owners of shops and other retail outlets forbid women, the bulk of the shop workforce, to sit.
- Even leaning against a wall was punished. They have varicose veins and joint pain from standing.
- Toilet breaks were strictly limited. This has led to urinary infections, kidney problems.

## 6. Atmanirbhar Bharat corner

### Why in News?

- Recently, Tribal Cooperative Marketing Development Federation of India (TRIFED) in collaboration with the Ministry of External Affairs will set up an Atmanirbhar Bharat corner in 100 Indian Missions/ Embassies across the world.

### Highlights:

- The first Atmanirbhar Bharat corner was inaugurated at the Indian Embassy in Bangkok, Thailand, on Independence Day.
- TRIFED is a national-level apex organization functioning under the administrative control of the Ministry of Tribal Affairs. It is involved in schemes such as Van Dhan Programme, MSP for MFP and TRIFOOD.

- The corner will be an exclusive space to promote GI (Geographical Indication) tagged tribal art and craft products besides natural and organic products.
- The Geographical Indication, which has been recognized by the World Trade Organization (WTO), is used to denote the geographical territory from where a product, be it an agricultural produce, natural product or manufactured, and also conveys assurance of qualities or attributes that are unique to that specific geographic region.
- India became a signatory to this convention, when, as a member of the WTO, it enacted the Geographical Indications (Registration and Protection Act), 1999, which came into effect from September 2003. This Act is administered by the Controller General of Patents, Designs, and Trademarks, who is also the Registrar of Geographical Indications.
- The Geographical Indications Registry for India is located in Chennai.
- The registration of a geographical indication is valid for a period of 10 years. It can be renewed from time to time for a further period of 10 years each.

## 7. ATL Space Challenge 2021

### Why in News?

- NITI Aayog's Atal Innovation Mission (AIM) in collaboration with ISRO (Indian Space Research Organisation) and CBSE (Central Board of Secondary Education) has recently launched 'ATL Space Challenge 2021'.

### Highlights:

- Earlier, the Union cabinet in June 2020 decided to open up the space sector for private sector participation, and cleared the creation of a new entity, Indian National Space Promotion and Authorization Centre (IN-SPACe), to encourage private companies to use India's space infrastructure.
- This is to ensure that students of classes 6 to 12 are given an open platform where they can innovate and enable themselves to solve digital age space technology problems.
- Students from both ATL (Atal Tinkering Labs) and non-ATL schools can submit their entries in the space challenge. School teachers, ATL In-charges and mentors may support the student teams.
- Under the ATL initiative, schools receive a grant for setting up such labs to encourage students to give shape to their ideas and come up with innovative experiments on their own in these laboratories.

- It aligns with the World Space Week 2021 which is observed from 4th -10th October each year, to celebrate the contributions of space science and technology.
- This comes against the backdrop of India's push to move up in the Global Innovation Index (GII, released by the World Intellectual Property Organisation) rankings.

### **Atal Innovation Mission:**

- It is Government of India's Flagship Initiative to promote a culture of innovation and entrepreneurship in the country.
- It's objective is to develop new Programmes and policies for fostering innovation in different sectors of the Economy, provide platform and collaboration opportunities for different stakeholders, create Awareness and create an umbrella structure to oversee the Innovation Ecosystem of the Country.

## **8. Transport and Marketing Assistance (TMA) scheme**

### **Why in News?**

- The Ministry of Commerce and Industry has recently revised the Transport and Marketing Assistance (TMA) scheme for specified agriculture products.

### **Highlights:**

- It will be effected on or after 1st April, 2021, up to 31st March, 2022.
- It was launched in 2019, for providing financial assistance for the transport and marketing of agricultural products to boost exports of such commodities to certain countries in Europe and North America. In the year 2018, the government approved an Agriculture Export Policy with an aim to double the shipments to USD 60 billion by 2022.
- APEDA (Agricultural and Processed Food Products Export Development Authority) works towards expanding the export potential of Indian agricultural and food products.
- Under the TMA, the government reimburses a certain portion of freight charges and provides assistance for the marketing of agricultural produce.
- The assistance, at notified rates, will be available for export of eligible agriculture products to the permissible countries, as specified from time to time.
- The revised scheme has included dairy products among other agriculture products in its purview and increased the rates of assistance.
- Rates of assistance have been increased, by 50% for exports by sea and 100% through the air. TMA would be reimbursed through the Regional Authorities of DGFT (Directorate General of Foreign Trade).



- Agricultural and Processed Food Products Export Development Authority
- It is a non-trading, statutory body established by the Government of India under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in December, 1985.
- It functions under the Ministry of Commerce and Industry. The Authority has its Headquarters in New Delhi.
- It has been mandated with the Responsibility of export promotion and development of the scheduled products viz. fruits, vegetables, meat products, dairy products, alcoholic and non-alcoholic beverages etc.
- It has also been entrusted with the responsibility to monitor import of sugar.
- In 2017, APEDA launched a mobile app- “Farmer Connect” to allow farmers to apply online to facilitate their farm registration, tracking the status of application & approvals by State Government and Lab sampling by authorized Laboratories.



## 4. SCIENCE & TECHNOLOGY

### 1. IT rules framed to regulate Unlawful Content, says Govt.

#### Why in News?

- The Union Ministry of Electronics and Information Technology recently told the Madras High Court that it had “lawfully” notified the Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules of 2021 to regulate publishers of news and current affairs on digital media and publishers of online curated content on Over the Top (OTT) platforms from publishing “unlawful” content.

#### About the News:

- The submission was made in a counter affidavit, challenging the constitutional validity of the statutory rules that were notified on February 25.
- The counter, representing the petitioners, said the right to freedom of speech and expression guaranteed under Article 19 of the Constitution was not absolute and that it was subject to limitations under Articles 19(2) and 19(6), which empower the State to make laws imposing reasonable restrictions on the exercise of the right.
- A common thread that runs across all reasonable restrictions is public interest and it is beyond any pale of doubt that restrictions may be imposed on freedoms for the interest of the public at large. The Rules have been clearly enacted bona fide for the benefit of the public.
- Claiming that the IT Rules, 2021, were framed after holding public consultations with the stakeholders, the Ministry said the significant expansion of the online intermediary ecosystem, growth of online social media platforms and their influencing capabilities were some of the reasons for framing the new rules.
- The Ministry of Information and Broadcasting, too, filed a separate counter affidavit and claimed that the Rules had been brought in to provide an institutional framework for digital media and OTT platforms.

#### Overview of the IT rules:

- It mandates a grievance redressal system for over the top (OTT) and digital portals in the country. This is necessary for the users of social media to raise their grievance against the misuse of social media.
- Significant social media firms have to appoint a chief compliance officer and have a nodal contact person who can be in touch with law enforcement agencies 24/7.

- **A grievance officer:** Social media platforms will also have to name a grievance officer who shall register the grievance within 24 hours and dispose of it in 15 days.
- **Removal of content:** If there are complaints against the dignity of users, particularly women – about exposed private parts of individuals or nudity or sexual act or impersonation etc – social media platforms will be required to remove that within 24 hours after a complaint is made.
- **A monthly report:** They also will have to publish a monthly report about the number of complaints received and the status of redressal.
- There will be three levels of regulation for news publishers – self-regulation, a self-regulatory body, headed by a retired judge or an eminent person, and oversight from the Information and Broadcasting Ministry, including codes of practices and a grievance committee.

### What is a significant Social Media Intermediary and Benefits obtained under it?

- Social media companies with more than 50 lakh registered users will be considered ‘significant social media intermediaries’, as per the new norms.

### What Happens in case of Non-Compliance?

- Social media giants such as Facebook, Twitter, Instagram and WhatsApp messenger could face a ban if they do not comply with the new Information Technology rules.
- They also run the risk of losing their status as “intermediaries” and may become liable for criminal action if they do not comply with the Revised Regulations.

### What are the Concerns being raised?

- Various industry bodies have written to the government for up to a one-year compliance window, particularly in view of the pandemic. Concerns have also been expressed over potential unavailability of ‘safe harbour’ protection given to intermediaries under Section 79 of the IT Act, under the new rules.
- They have requested a re-think over a clause in the new rules which can lead to imposition of criminal liability upon the employees for non-compliance by intermediaries, asking for it to be dropped in the interest of ease of doing business. Originator traceability mandate in end-to-end encrypted platforms could end up weakening the security architecture of the platform. This could render the entire citizenry susceptible to cyberattacks by hostile actors. Additionally, the extant data retention mandate entailed risking privacy of users in India and abroad in addition to security risks and technical complexities which requires a lot of time for development and testing before integration with the existing ecosystem.

## 2. Nipah Reappears in Kerala

### Why in News?

- After a gap of over three years, a case of the zoonotic Nipah virus infection was reported in Kozhikode district of Kerala recently.

### What is Nipah Virus?

- According to WHO, the Nipah virus infection is a newly emerging zoonosis, that is, a disease transmitted from animals to humans. The virus belongs to a new genus termed Henipavirus (subfamily Paramyxovirinae).
- The natural host of the virus are fruit bats belonging to the family Pteropodidae. In 2004, humans were affected after eating the date palm contaminated by infected fruit bats. Pigs can also act as Intermediate Hosts.

### When was it First Reported?

- It was first identified in 1998 at Kampung Sungai Nipah village, Malaysia. The virus is named after this village.

### What are the Symptoms in Humans?

- The symptoms of Nipah are similar to that of influenza: fever, muscle pain, and respiratory problems.
- Inflammation of the brain can also cause disorientation.
- Late onset of Encephalitis can also occur.
- Sometimes a person can have an asymptomatic infection, and be a carrier of Nipah and not show any symptoms.

### Are there any Vaccines?

- Currently, there are no vaccines for both humans and animals. Intensive supportive care is given to humans infected by Nipah virus.
- According to WHO, ribavirin can reduce the symptoms of nausea, vomiting, and Convulsions Associated with the Disease.
- Individuals infected need to be hospitalised and isolated.
- Special care should be taken to prevent human-to-human transmission.
- Surveillance systems should be established to detect the virus quickly and to initiate appropriate control measures.

### 3. SC agrees to adjourn hearing of Pegasus Case Probe

#### Why in News?

- Recently, it has been reported that Pegasus, the Malicious Software, has allegedly been used to secretly monitor and spy on an extensive host of Public Figures in India.

#### What is Pegasus?

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

#### Who were the Targets?

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

#### Recent Steps Taken in India against Cyber Crime:

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



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

### International Mechanisms:

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

## 4.1. SCIENCE & TECHNOLOGY SNIPPETS

### 1. West Nile Virus outbreak in Russia

#### Why in News?

- Russia warned of a possible increase in West Nile virus infections this autumn as mild temperatures and heavy Precipitation create favourable conditions for the mosquitos that carry it.

#### West Nile virus (WNV):

- WNV is mainly transmitted through mosquito bites and can lead to fatal neurological disease in humans, although most people infected never develop any symptoms.
- Cases of WNV occur during mosquito season, which starts in the summer and continues through fall.

#### Its origin:

- Originally from Africa, the WNV has spread to Europe, Asia, and North America.

- It was first isolated in a woman in the West Nile district of Uganda in 1937.
- It was identified in birds in the Nile delta region in 1953.
- Before 1997, WNV was not considered pathogenic for birds.
- Human infections attributable to WNV have been reported in many countries for over 50 years.

### Symptoms:

- Infected persons usually have no symptoms or mild symptoms.
- Some of the symptoms include fever, headache, body aches, skin rash, and swollen lymph glands. They can last a few days to several weeks and usually, go away on their own.
- Prolonged illness may cause inflammation of the brain, called encephalitis, or inflammation of the tissue that surrounds the brain and spinal cord, called meningitis.

### Treatment:

- There is no vaccine against the virus in humans although one exists for horses, the WHO says.

## 2. Formation of Blue Straggler

### Why in News?

- Carrying out the first-ever comprehensive analysis of blue stragglers, Indian researchers found that half of the blue stragglers in their sample are formed through mass transfer from a close Binary Companion star.

### What are Blue Stragglers?

- A blue straggler is a main-sequence star in an open or globular cluster that is more luminous and bluer than stars at the main sequence turnoff point for the cluster.
- The most likely explanation is that blue stragglers are the result of stars that come too close to another star or similar Mass Object and Collide.
- The newly-formed star has thus a higher mass and occupies a position on the HR diagram which would be populated by Genuinely Young Stars.
- One-third of them are likely formed through collisions of 2 stars, and the remaining are formed through Interactions of more than 2 stars.

### How are they Formed?

- A bunch of stars born at the same time from the same cloud form a star cluster.
- As time passes, each star evolves differently depending on its mass.

- The most massive and bright stars evolve and move off the main sequence creating a bend in their track, known as the turnoff.
- Stars above this bend or brighter and hotter stars are not expected in a cluster, as they leave the main sequence to become red giants.
- But in 1953, Allan Sandage found that some stars seem to be hotter than the turnoff of the parent cluster.

### Behind the Nomenclature:

- Initially, these blue stars still straggling above the turnoff were not part of these clusters.
- However, later studies confirmed that these stars are indeed cluster members, and they were termed “Blue Stragglers”.
- The only probable way these stars can still be present in these clusters is if they have somehow acquired extra mass along the way while on the main sequence.
- Confirming the mechanisms of the mass gain required a study using a large sample of blue-straggler stars and estimates of the mass they have gained.

### What has Indian Researchers Found?

- Research showed that these stars are primarily present in the older and massive star clusters. And due to their large mass, they are segregated towards the centre of the clusters.
- The researchers compared the mass of the blue stragglers to the mass of the turnoff stars (which are the most massive ‘normal’ stars in the cluster) and predicted the formation Mechanisms.
- The study will help improve understanding of these stellar systems to uncover exciting results in studies of large stellar populations, including galaxies.
- Following these findings, the researchers are conducting detailed analyses of individual blue stragglers in the catalogue to obtain their stellar properties.

## 3. Singapore-India Maritime Bilateral Exercise (SIMBEX)

### Why in News?

- India and Singapore have recently carried out 28th edition of the Singapore-India Maritime Bilateral Exercise (SIMBEX).

### Highlights:

- Initiated in 1994, SIMBEX is the Indian Navy's longest uninterrupted bilateral maritime exercise with any foreign navy.

- 28th edition of SIMBEX was a mega naval wargame in the southern fringes of the South China Sea, in reflection of their growing congruence of interests in the strategically key region. Both navies have a representation in each other's Maritime Information Fusion Centres and have also recently signed an agreement on mutual submarine rescue support and coordination.
- Singapore participates in Indian Ocean Naval Symposium (IONS) and multilateral exercise MILAN hosted by the Indian Navy.
- Singapore's membership of Indian Ocean Rim Association (IORA) and India's membership of ADDM+ (ASEAN Defence Ministers' Meeting - Plus) provides a platform for both countries to coordinate positions on Regional Issues of Mutual Concern.

## 4. DefExpo-2022

### Why in News?

- The 12<sup>th</sup> edition of DefExpo will be held in Gandhinagar, Gujarat in March 2022.

### Highlights:

- DefExpo is a flagship biennial event of the Ministry of Defence, showcasing the land, naval, air as well as homeland security systems.
- The aim of the DefExpo 2022 is to build upon the vision to achieve Atmanirbharta' in defence and reach the \$5bn defence exports target by 2024.
- The 11th edition of DefExpo was held at Lucknow (Uttar Pradesh) in 2020.
- Defence Sector Reforms Under Atmanirbhar Bharat Abhiyan:
- Revision of FDI Limit: The FDI limit in defence manufacturing under automatic route is raised from 49% to 74%.
- Project Management Unit (PMU): The government is expected to begin time-bound defence procurement and faster decision making by setting up a Project Management Unit (for contract management purposes).
- Reduction in Defence Import Bill: The government will notify a list of weapons/platforms banned for imports and thus such items can only be purchased from the domestic market.
- Separate budget provision for domestic capital procurement.
- Corporatisation of the Ordnance Factory Board: It will include a public listing of some units, ensuring a more efficient interface of the manufacturer with the designer and end-user.

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## 5. Inspiration4: SpaceX's first all-civilian Space Mission

### Why in News?

- SpaceX has announced its 'Inspiration4' mission, the first all-civilian, non-governmental spaceflight, for launch.

### What is Inspiration4?

- Inspiration4 is a part of an effort to raise funds for paediatric treatment and research facility that focuses on children's catastrophic diseases, particularly leukaemia and other cancers.
- The mission involves circling the Earth for three days and then splashing down into the Atlantic Ocean. Inspiration4 will orbit the Earth at 575km, higher than the International Space Station (408km) and the Hubble space telescope (547km).
- This will be the farthest distance travelled by a crewed mission since 2009, when astronauts last went to repair the Hubble.
- The Dragon module that the group will be using has also been modified for the mission.
- Usually, the SpaceX module is used for travelling to the ISS, where it has to dock or join the Floating Laboratory.

### Dome Window:

- Since Inspiration4 is not going to the ISS, the docking port has been removed and has been replaced with a dome window instead.
- This dome window will offer breath-taking views of the Earth for the four travellers.
- The window has been inspired by the Cupola, a module on the ISS used to make observations about our planet.

### Why is the Mission Significant?

- According to a report in the Independent, the journey will present an opportunity for collecting large amounts of health data that will aid in planning future crewed space missions.
- As per the report, they will collect data on ECG (electrocardiograph) activity, movement, sleep, heart rate and rhythm, blood oxygen saturation, cabin noise and light intensity, which will help in assessing behavioural and cognitive changes over the Journey.
- The travellers will undergo balance and prescription tests just before and after their journey to assess their response to the change in gravity.
- The immune system function will also be monitored by collecting blood. Their organ systems will also be monitored by an AI-powered ultrasound device.



## 6. Chandrayaan-2

### Why in News?

- The failure of Chandrayaan-2, India's second mission to the Moon, to make a soft landing on the lunar surface had led to much disappointment. But that did not mean the entire mission had been wasted.

### Chandrayaan-2: A Quick Recap:

- Chandrayaan-2 consisted of an Orbiter, Lander and Rover, all equipped with scientific instruments to study the moon.
- The Orbiter would watch the moon from a 100-km orbit, while the Lander and Rover modules were to be separated to make a soft-landing on moon's surface.
- ISRO had named the Lander module as Vikram, after Vikram Sarabhai, the pioneer of India's space programme, and the Rover module as Pragyaan, meaning wisdom.

### Utility of the Orbit:

- The Orbiter part of the mission has been functioning normally. It is carrying eight instruments.
- Each of these instruments has produced handsome amount of data that sheds new light on the moon, and offers insights that could be used in further exploration.
- Some of the most significant results so far:

#### (a) Water:

- The presence of water on the Moon had already been confirmed by Chandrayaan-1, India's first mission to the Moon that flew in 2008.
- Using far more sensitive instruments, the Imaging Infra-Red Spectrometer (IIRS) on board Chandrayaan-2 has been able to distinguish between hydroxyl and water molecules, and found unique signatures of both.
- This is the most precise information about the presence of H<sub>2</sub>O molecules on the Moon till date. Previously, water was known to be present mainly in the polar regions of the Moon.
- Chandrayaan-2 has now found signatures of water at all latitudes, although its abundance varies from place to place.

#### (b) Minor Elements:

- The Large Area Soft X-Ray Spectrometer (CLASS) measures the Moon's X-ray spectrum to examine the presence of major elements such as magnesium, aluminium, silicon, calcium, titanium, iron, etc.

- This instrument has detected the minor elements chromium and manganese for the first time through remote sensing, thanks to a better detector.
- The finding can lay the path for understanding magmatic evolution on the Moon and deeper insights into the nebular conditions as well as planetary differentiation.
- CLASS has mapped nearly 95% of the lunar surface in X-rays for the first time.
- Sodium, also a minor element on the Moon surface, was detected without any ambiguity for the First Time.

### (c) Study of Sun

- One of the payloads, called Solar X-ray Monitor (XSM), besides studying the Moon through the radiation coming in from the Sun, has collected information about solar flares.
- XSM has observed a large number of microflares outside the active region for the first time.
- This has great implications on the understanding of the mechanism behind heating of the solar corona, which has been an open problem for many decades.

### Utility of this Data:

- While the Orbiter payloads build upon existing knowledge of the Moon in terms of its surface, sub-surface and exosphere, it also paves the path for future Moon missions.
- Four aspects – mineralogical and volatile mapping of the lunar surface, surface and subsurface properties and processes involved, quantifying water in its various forms across the Moon surface, and maps of elements present on the moon – will be key for future scope of work.
- A key outcome from Chandrayaan-2 has been the exploration of the permanently shadowed regions as well as craters and boulders underneath the regolith, the loose deposit comprising the top surface extending up to 3-4m in depth.
- This is expected to help scientists to zero in on future landing and drilling sites, including for Human Missions.

### Who is going to use it?

- Some key future Moon missions that hope to make use of such data include the Japan Aerospace Exploration Agency (JAXA)-ISRO collaboration Lunar Polar Exploration (LUPEX) mission scheduled for launch in 2023/2024.
- Its aim is to obtain knowledge of lunar water resources and to explore the suitability of the lunar polar region for setting up a lunar base.
- NASA's Artemis missions plan to enable human landing on the Moon beginning 2024 and target sustainable lunar exploration by 2028.

- The Chinese Lunar Exploration Programme too plans to establish a prototype of the International Lunar Research Station (ILRS) at the lunar south pole and build a platform supporting large-scale scientific exploration.
- What was missed because of the crash-landing?
- The most obvious miss has been the opportunity to demonstrate the technology to make a soft-landing in outer space.
- The lander Vikram and rover Pragyaan were carrying instruments to carry out observations on the surface.
- These were supposed to pick up additional information about the terrain, and composition and mineralogy. While the instruments on board the Orbiter are making “global” observations, those on the lander and rover would have provided much more local information.
- The two diverse sets of data could have helped prepare a more composite picture of the Moon.

### **Future with the Chandrayaan-3:**

- ISRO scientists maintain that the accident was caused by a relatively small error that has been identified and corrected.
- But, to demonstrate this technology all over again, ISRO would have to send a fresh mission, Chandrayaan-3, planned for next year.
- It is expected to have only a lander and rover, and no Orbiter.

## **7. Coronal Mass Ejection (CME)**

### **Why in News?**

- Recently, Indian Scientists have measured the magnetic field of an eruption from the Sun's atmosphere (solar corona), offering a rare peek to the interior of the Sun.

### **Highlights:**

- It is one of the biggest eruptions from the Sun's surface that can contain a billion tons of matter accelerated to several million miles per hour into space.
- Scientists from the Indian Institute of Astrophysics (IIA) studied the weak thermal radio emission associated with the erupted plasma for the first time, measuring the magnetic field and other physical conditions of the eruption.
- IIA is an autonomous institute of the Department of Science & Technology (DST), at Gauribidanur, Karnataka.

- The team studied the plasma from the Coronal Mass Ejection (CME) that happened on 1st May, 2016. Plasma is also known as the fourth state of matter. At high temperatures, electrons are ripped from atom's nuclei and become a plasma or an ionised state of matter.
- The emissions were detected with the help of radio telescopes of the IIA, along with some space-based telescopes that observed the Sun in extreme ultraviolet and white light.
- They were also able to measure the polarisation of this emission, which is indicative of the direction in which the electric and magnetic components of the waves oscillate.

### About the Coronal Mass Ejections:

- The Sun is an extremely active object, spewing out vast quantities of gas and plasma in many violent events.
- A class of such eruptions are Coronal Mass Ejections (CMEs). It is the most powerful explosions happening in the solar system.
- The underlying cause of CMEs is not well understood. Astronomers agree, however, that the sun's magnetic field plays a major role.
- Though CMEs can occur anywhere on the Sun, it is primarily those which originate from regions near the centre of the visible solar surface (called the photosphere) that are important for study, since they may propagate directly towards the Earth.
- When a really strong CME blows past the Earth, it can damage the electronics in satellites and disrupt radio communication networks on Earth.
- A geomagnetic storm is a major disturbance of Earth's magnetosphere (space controlled by earth's magnetic field) that occurs when there is a very efficient exchange of energy from the solar wind into the space environment surrounding Earth.

## 8. Solar Storm

### Why in News?

- Studies have found that a powerful solar storm can cause a disruption of the internet, damage submarine cables, and communication satellites.

### What is a Solar Storm?

- A solar storm or a Coronal Mass Ejection as astronomers call it is an ejection of highly magnetized particles from the sun.
- These particles can travel several million km per hour and can take about 13 hours to five days to reach Earth.
- Earth's atmosphere protects us, Humans, from these Particles.

- But the particles can interact with our Earth's magnetic field, induce strong electric currents on the surface and affect man-made structures.

### History of Solar Storms:

- The first recorded solar storm occurred in 1859 and it reached Earth in about 17 hours.
- It affected the telegraph network and many operators experienced electric shocks.
- A solar storm that occurred in 1921 impacted New York telegraph and railroad systems and another small-scale storm collapsed the power grid in Quebec, Canada in 1989.
- A 2013 report noted that if a solar storm similar to the 1859 one hit the US today, about 20-40 million people could be without power for 1-2 years, and the total economic cost will be \$0.6-2.6 trillion.

### Why is it a Cause of Concern?

- The Sun goes through an 11-year cycle – cycles of high and low activity.
- It also has a longer 100-year cycle. During the last three decades, when the internet infrastructure was booming, it was a low period.
- And very soon, either in this cycle or the next cycle, we are going towards the peaks of the 100-year cycle.

## 9. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)

### Why in News?

- Researchers have recently created a system that restrains populations of mosquitoes by leveraging advancements in Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)-based genetic engineering.

### Highlights:

- Mosquitoes infect millions each year with debilitating diseases such as dengue and malaria.
- SIT is an environmentally safe and proven technology to suppress wild populations.
- To further advance its utility, a novel CRISPR-based technology, termed precision-guided Sterile Insect Technique (pgSIT) is described.
- It is a new scalable genetic control system that uses a CRISPR-based approach to engineer deployable mosquitoes that can Suppress Populations.
- Males don't transmit diseases so the idea is to release more and more sterile males.
- The population of mosquitos can be suppressed without relying on harmful chemicals and insecticides.



- 
- It alters genes linked to male fertility—creating sterile offspring—and female flight in *Aedes aegypti*, the mosquito species responsible for spreading diseases including dengue fever, chikungunya and Zika.
  - PgSIT mechanistically relies on a dominant genetic technology that enables simultaneous sexing and sterilization, facilitating the release of eggs into the environment ensuring only sterile adult males emerge.
  - The system is self-limiting and is not predicted to persist or spread in the environment, two safety features that should enable acceptance for this technology.
  - pgSIT eggs can be shipped to a location threatened by mosquito-borne disease or developed at an on-site facility that could produce the eggs for nearby deployment.
  - Once the pgSIT eggs are released in the wild, sterile pgSIT males will emerge and eventually mate with females, driving down the wild population as needed.

#### **CRISPR:**

- It is a gene editing technology, which replicates natural defence mechanisms in bacteria to fight virus attacks, using a special protein called Cas9.
- CRISPR-Cas9 technology behaves like a cut-and-paste mechanism on DNA strands that contain genetic information.
- The specific location of the genetic codes that need to be changed, or edited, is identified on the DNA strand, and then, using the Cas9 protein, which acts like a pair of scissors, that location is cut off from the Strand.

## 5.1. ART AND CULTURE SNIPPETS

### 1. Battle of Saragarhi

#### Why in News?

- 12<sup>th</sup> September marked has the 124<sup>th</sup> anniversary of the Battle of Saragarhi.

#### Highlights:

- It is considered one of the finest last stands in the military history of the world.
- Saragarhi was the communication tower between Fort Lockhart and Fort Gulistan. The two forts in the rugged North West Frontier Province (NWFP), now in Pakistan, were built by Maharaja Ranjit Singh but renamed by the British.
- It helped to link up the two important forts which housed a large number of British troops in the rugged terrain of NWFP.
- Twenty-one soldiers were pitted against over 8,000 Afridi and Orakzai tribals but they managed to hold the fort for seven hours.
- Though Saragarhi was usually manned by a platoon of 40 soldiers, on that fateful day, it was being held by only 21 soldiers from 36<sup>th</sup> Sikh Regiment (now 4<sup>th</sup> Sikh in Indian Army) and a non-combatant called Daad, a Pashtun who did odd jobs for the troops.
- Though heavily outnumbered, the soldiers of 36<sup>th</sup> Sikhs, led by Havildar Ishar Singh, fought till their last breath, killing 200 tribals and injuring 600.
- In 2017, the Punjab government decided to observe Saragarhi Day on 12<sup>th</sup> September as a holiday.
- Even today the Khyber Scouts regiment of the Pakistani army mounts a guard and salutes the Saragarhi memorial close to Fort Lockhart.

## 6. INTERNATIONAL RELATIONS

### 1. China opens first road-rail Transport Link to Indian Ocean

#### Why in News?

- Plans are underway to develop the Myanmar border trade town of Chin Shwe Haw as a “border economic cooperation zone” under the Belt and Road Initiative.

#### About the News:

- The first shipments on a newly-launched railway line from the Myanmar border to the key commercial hub of Chengdu in western China, that provides China a new road-rail transportation channel to the Indian Ocean.
- A “test cargo” through what is being called the China-Myanmar New Passage arrived at the Chengdu rail port in Sichuan province recently.

#### About the Project:

- The transport corridor involves a sea-road-rail link. Goods from Singapore reached Yangon Port, arriving by ship through the Andaman Sea of the north-eastern Indian Ocean, and were then transported by road to Lincang on the Chinese side of the Myanmar-China border in Yunnan province. The new railway line that runs from the border town of Lincang to Chengdu, a key trade hub in western China, completes the corridor.
- “This passage connects the logistics lines of Singapore, Myanmar and China, and is currently the most convenient land and sea channel linking the Indian Ocean with southwest China which “the one-way journey saves 20 to 22 days”.



#### What are the other Projects by China?

- China also has plans to develop another port in Kyaukphyu in the Rakhine state, including a proposed railway line from Yunnan directly to the port, but the progress there has been stalled by unrest in Myanmar.

- Chinese planners have also looked at the Gwadar port in Pakistan as another key outlet to the Indian Ocean that will bypass the Malacca Straits. Gwadar is being developed as part of the China Pakistan Economic Corridor (CPEC) to the far western Xinjiang region, but has been slow to take off amid concerns over security.
- The costs and logistics through CPEC are also less favourable than the Myanmar route with the opening of the rail transport channel from the Myanmar border right to western China's biggest commercial hub, Chengdu. Transportation time on the railway line from the Myanmar border to Chengdu takes three days.
- The railway line currently ends in Lincang on the Chinese side opposite the Myanmar border trade town of Chin Shwe Haw. Plans are underway to develop Chin Shwe Haw as a "border economic cooperation zone" under the Belt and Road Initiative.

### About CPEC:

- The CPEC is the flagship project of the multi-billion-dollar Belt and Road Initiative (BRI), a pet project of Chinese President Xi Jinping, aimed at enhancing Beijing's influence around the world through China-funded infrastructure projects.
- The 3,000 km-long China–Pakistan Economic Corridor (CPEC) consists of highways, railways, and pipelines.
- CPEC eventually aims at linking the city of Gwadar in South Western Pakistan to China's North Western region Xinjiang of Kashgar province through a vast network of highways and railways.
- The proposed project will be financed by heavily-subsidised loans, that will be disbursed to the Government of Pakistan by Chinese banks.

### Concerns for India:

- CPEC rests on a Chinese plan to secure and shorten its supply lines through Gwadar with an enhanced presence in the Indian Ocean. Hence, it is widely believed that upon CPEC's fruition, an extensive Chinese presence will undermine India's influence in the Indian Ocean.
- It is also being contended that if CPEC were to successfully transform the Pakistan economy that could be a "red rag" for India which will remain at the receiving end of a wealthier and stronger Pakistan. Besides, India shares a great deal of trust deficit with China and Pakistan and has a history of conflict with both. As a result, even though suggestions to re-approach the project pragmatically have been made, no advocate has overruled the principle strands of contention that continue to mar India's equations with China and Pakistan.

## What is BRI?

- The Belt and Road Initiative, also known as the One Belt, One Road (OBOR) project was launched by the Chinese President Xi Jinping in 2013.
- The project intends to link Asia with Europe and Africa through an overland “belt” and a maritime silk “road”.
- But it is more than that as it involves:
  - The export of Chinese capital, labour, technology,
  - The use of the Yuan and
  - The development of new ports, industrial hubs, special economic zones and military facilities, under Beijing’s auspices.

China's Belt & Road Initiative



## Why has China Launched it?

- **Bridging the Infrastructure Gap in Asia:** According to China, the Belt and Road Initiative will bridge the ‘infrastructure gap’ and thus accelerate economic growth across the Asia Pacific area and Central and Eastern Europe.
- **Economic Motives of China:** OBOR is aimed at boosting domestic growth in China which has slipped in recent years. In 2016 china grew by 6.7% which is the lowest since 1990. OBOR also provides china a market to sells its product especially Steel.



- **Global Leadership:** But some feel that BRI is more out of political motivation rather than real demand for infrastructure. It is a masterstroke by China to establish itself as a world-leading economy and to spread its power, particularly in the South Asian region at the expense of the US.

### Way Ahead for India:

- **Improve infrastructure in frontier regions:** Whether it is in Kashmir, Arunachal, the Andamans or the neighbourhood, India's neglect of its frontier regions has weakened its regional position. Thus, we should improve infrastructure in frontier regions.
- **Improve internal connectivity:** India should remember that China's BRI did not start out as an external initiative. It was built on the existing internal "Go West" strategy launched two decades ago, that has focused on unifying China's domestic market and connecting its developed east coast with the interior provinces.
- **Improve connectivity with neighbours:** India should modernize connectivity across its land and maritime frontiers with its neighbours in the Subcontinent, South East Asia and the Gulf by completing our projects in these regions.
- India can work with nations like Japan in developing regional connectivity. Japan has already outlined a Belt and Road initiative of its own, called the Partnership for Quality Infrastructure under which Japan has put up nearly \$150 billion to support infrastructure projects all across the Indo-Pacific and Eurasia.
- India should also improve our access to Europe by expediting projects like INSTC and others.
- On participation in BRI: India must focus on debating the specific terms of individual projects rather than having to say "Yes" or "No" to the BRI as a whole.

## 2. Food Emergency in Sri Lanka

### Why in News?

- President of Sri Lanka declared an Economic Emergency on account to contain inflation which saw a huge spike after a steep fall in valuation of its currency caused a spike in food prices.

### What Precipitated this Unprecedented Move?

- Since November 2019, the value of Sri Lankan rupee has eroded by about 20%.
- High global market price due to the pandemic has escalated the prices of essential items.



- Hoarding by traders has also contributed to Sri Lanka taking this emergency route to combat the crisis. Tourism which happens to be one of the main businesses of Sri Lanka has suffered due to the travel restrictions placed owing to the pandemic. Sri Lanka's economy shrank by a Record 3.6% Last Year.

### Significance of the Declaration of Economic Emergency:

- Prevent the hoarding of Essential items by traders.
- Ensure essential items are sold at Government-Determined Prices.
- It will also help the government to realize import duties owed to the state by the traders.

### Some of the causes behind the Recent Rise in Inflation:

- **Rise in Fuel Prices.** This is adding to the cost of production across multiple industries.
- Volatility in labour market has been hampering the normal conduct of business.
- There has been a rise in demand; particularly for essential commodities amongst the masses owing to the fear of lockdown. This has led to the behavior of hoarding amongst common people.
- **The menace of Hoarding is still prevalent.**
- Increase in global prices is causing the products to be diverted to these markets owing to the possibility of greater product; this is creating shortage of products in the domestic market.
- Erratic rainfall pattern has further exacerbated the inflation issue in some countries.

### Way Forward:

- Ensure adequate supply of Essential items through Appropriate Measures  
**(Ex: prevention of hoarding).**
- Monitor the pricing mechanisms of Essential items to prevent any steep hike.
- Intervention in the market through sale of government-held stocks to bring down the rate of Essential Items.
- Bring petroleum under the GST bracket. This will reduce the multiplicity of taxes currently being imposed on the product.
- Improve vaccine coverage so as to ensure minimal disruptions in the market going Forward.

### 3. 13<sup>th</sup> BRICS Summit

#### Why in News?

- The 13<sup>th</sup> BRICS Summit is going to be held under India's Chairship in 2021. It will be the third time that India will be hosting the BRICS Summit after 2012 and 2016.

#### Highlights of the Summit:

- The Indian Chairship of BRICS this year coincides with the fifteenth anniversary of BRICS, as reflected in the theme for the Summit.
- The theme for the Summit: 'BRICS@15: Intra-BRICS cooperation for continuity, consolidation and consensus.'
- India had outlined four priority areas for its Chairship. These are Reform of the:
  - ✓ **Multilateral System:** It is the first time that BRICS has taken a collective position on 'Strengthening and Reforming Multilateral Systems'. The declaration called for reforms of the principal organs of the United Nations including that of the UN Security Council (UNSC). It also called for an "inclusive intra-Afghan dialogue" for stability in Afghanistan. Apart from Afghanistan, the BRICS leaders also took up the conflicts in Myanmar, Syria, the tension in the Korean peninsula, Israel-Palestine violence and other territorial disputes.
  - ✓ **Counter Terrorism:** It defines the approach and actions of the BRICS countries towards areas of Counter Terrorism cooperation which includes: Countering Radicalization and Online Terrorist Threats, Border Management, Information/Intelligence Sharing, etc.
  - ✓ **Using Digital and Technological Tools for achieving SDGs:** Agreement on cooperation in the field of remote-sensing satellites; a virtual BRICS vaccine Research & Development Centre; BRICS Alliance on Green Tourism, etc.
  - ✓ **Enhancing People to People exchanges:** Highlighting the leading role that BRICS countries can play in the post-Covid global recovery, Prime Minister called for enhanced BRICS cooperation under the motto of 'Build-back Resiliently, Innovatively, Credibly and Sustainably'.

#### Background:

- The BRICS summit is taking place at a time two of the Bloc's members, India and China, are locked in a bitter border standoff in eastern Ladakh for over six months.
- The BRICS is known as an influential Bloc that represents over 3.6 billion people, or half of the world's population.

- Such summits are significant for India as the BRICS countries have a combined GDP of USD 16.6 trillion.

### What is BRICS?

- BRICS is the group composed of the five major emerging countries – Brazil, Russia, India, China and South Africa.
- It together represents about 42% of the population, 23% of GDP, 30% of the territory and 18% of the global trade. The acronym BRIC was coined by economist ‘Jim O’Neill’ of Goldman Sachs in 2001 to indicate the emerging powers that would be, alongside the United States, the five largest economies of the world in the 21st century.
- In 2006, BRIC countries started their dialogue, which since 2009 takes place at annual meetings of heads of State and Government.
- In 2011, with South Africa joining the group, the BRICS reached its final composition, incorporating a country from the African continent.

## 4. Iran to allow Nuclear Surveillance

### Why in News?

- Iran recently agreed to allow international inspectors to install new memory cards into surveillance cameras at its sensitive nuclear sites and to Continue Filming there, potentially Averting a Diplomatic Showdown this Week.

### About the Issue:

- In February 2021, the agreement between the IAEA and Iran, Tehran said it would allow IAEA inspectors necessary verification and monitoring activities in accordance with the newly passed law for up to three months. The announcement by the Atomic Energy Organization of Iran after the recent meeting held with the Director-General of the International Atomic Energy Agency, in Tehran still leaves the watchdog in the same position it has faced since February.
- Tehran holds all recordings at its sites as negotiations over the U.S. and Iran returning to the 2015 nuclear deal remain stalled in Vienna.
- Meanwhile, Iran is now enriching small Amounts of uranium to its closest-ever levels to weapons-grade purity as its stockpile Continues to grow.

### What is Uranium Enrichment?

- Natural uranium consists of two Different Isotopes - nearly 99% U-238 and only around 0.7% of U-235.

- U-235 is a fissile material that can sustain a chain reaction in a nuclear reactor.
- Enrichment process increases the proportion of U-235 through the process of isotope separation (U-238 is separated from U-235).
- For nuclear weapons, enrichment is required up to 90% or more which is known as Highly Enriched Uranium/weapons-grade Uranium.
- For nuclear reactors, enrichment is required up to 3-4% which is known as Low Enriched Uranium/reactor-grade uranium.

### Iran Nuclear Program and JCPOA

- In 2015, Iran with the P5+1 group of world powers - the USA, UK, France, China, Russia, and Germany agreed on a long-term deal on its nuclear programme.
- The deal was named as Joint Comprehensive Plan of Action (JCPOA) and in common parlance as Iran Nuclear Deal.
- Under the deal, Iran agreed to curb its nuclear activity in return for the lifting of sanctions and access to global trade.
- The agreement allowed Iran to accumulate small amounts of uranium for research but it banned the enrichment of uranium, which is used to make reactor fuel and nuclear weapons.
- Iran was also required to redesign a heavy-water reactor being built, whose spent fuel would contain plutonium suitable for a bomb and to allow international inspections.
- In May 2018, the USA abandoned the deal criticizing it as flawed and reinstated and tightened its sanctions.
- The USA held that it would attempt to force all countries to stop buying Iranian oil and put pressure on Iran to negotiate a new nuclear accord.
- The top Iranian general Qassem Soleimani (the commander of the Al-Quds Force of Iran's Islamic Revolutionary Guard Corps, IRGC) was assassinated by the USA during his visit to Iraq. This escalated tensions in the international arena.
- Amid rising tensions, Britain, France and Germany declared that Iran was violating the 2015 pact and launched a dispute mechanism that could eventually see the matter referred back to the Security Council and the reimposition of UN sanctions.
- Since sanctions were tightened, Iran has been steadily breaking some of its commitments to pressure the remaining signatories to find a way to provide sanctions relief.

### What is the Concern?

- Former President Donald Trump unilaterally pulled the United States from the JCPOA in May 2018, calling it defective, and slapped sanctions on the Middle Eastern country.

- Following that decision, the Trump administration, led by its State Department, carried out a so-called Maximum Pressure campaign with sanctions at its core to force Iran back to the negotiating table on a New Deal. In response, Iran repeatedly reneged on its commitments under the JCPOA. Under the previous administration, relations between Washington and Tehran sank to a record low that included maritime skirmishes and the United States assassinating military leader Qassem Soleimani in a drone strike in January 2020.
- Relations between the two sank to their lowest level in decades on Jan. 11, 2020, when Iran, in a heightened state of alert after it fired multiple missiles at two U.S. military bases in Iraq in retaliation for Soleimani's death, shot down an Ukrainian passenger jet leaving Tehran airport, killing all 176 on board.

### Way Forward:

- All countries part of the 2015 deal should engage constructively and resolve all issues peacefully and through dialogue. Both the USA and Iran must act with strategic restraint as any crisis in West Asia will not only affect the region as a whole but will have a detrimental impact on global affairs as well.

## 5. India UK to begin Trade Talks from November 1

### Why in News?

- The Government recently stated that formal negotiations for a proposed India-United Kingdom Free Trade Agreement (FTA) would begin on November 1, with an interim 'early harvest' Agreement to be completed by March 2022.

### About the News:

- The interim trade pact would involve early tariff or market access concessions on certain key high Priority Products and Services.
- The International Trade Secretary reaffirmed their ambition to negotiate a trade agreement that delivers results for the British people and businesses indicating its priority areas including those in digital and data, tech and food and drink.
- The proposed FTA would unlock the 'extraordinary' business opportunities and generate Jobs.

### Key Highlights:

- The UK India Business Council, in its pre-FTA submission to the U.K. Department of International Trade, had sought measures to ensure tax parity between the U.K. and Indian businesses and lower tariffs on alcoholic spirits and medical devices, among other items.

- It had also pitched for curbing non-tariff barriers to goods trade by aligning standards and ‘simplifying burdensome and costly procedures and steps such as ‘IP protection and alignment of data protection rules to enable digitally driven future focussed’ industries.
- Industry is also backing mutual recognition of qualifications in higher education and the professional services.
- Certain services of mutual interest may be included in the interim agreement through a request-offer approach, wherein we may include priority sectors which are immediately deliverable.
- If necessary, we may also explore signing of few Mutual Recognition Agreements in selective services like nursing and Architecture Services.

### About India-UK Trade:

- India has had strong historical ties with the U.K. and currently, it is one of India’s most important trading partners.
- It is a significant partner of India as an FDI investor after Mauritius and Singapore which ranked second and first respectively.
- Similarly, the U.K. is one of the largest investors in India, among the G20 countries.
- The bilateral trade between the two countries stood at 15.5 billion USD in 2019-20 as against 16.87 USD billion in 2018-19.
- India has Engagement with the UK in sectors like pharma, textiles, leather, industrial Machinery, Furniture, and toys.
- India is also looking to the UK to support it with technology-based products such as high Quality Cameras, Medical Devices, and Automobiles.

### What are its Significance?

- **Brexit:**
  - ✓ The UK has been pushing India for a bilateral trading arrangement ever since it voted to leave the European Union (EU) in June 2016 and left finally in January 2020.
  - ✓ However, India had been resisting these efforts as it decided that the Brexit process should complete first.
  - ✓ India has been keen to understand how much of a "special and preferential" access the UK will get in the vast European market when it is out of the EU’s single-market dynamics.
  - ✓ Hence, these talks would help in intensifying the beneficial aspect of the UK as a trading partner of India.



- **Exit from RCEP:**
  - ✓ India opted out of the Regional Comprehensive Economic Partnership deal in November 2019. Therefore, there is renewed focus on trade deals with the US, the European Union and the UK, which are key markets for Indian exporters and are keen to diversify their sourcing.
- **Strategic Partner:**
  - ✓ The UK is a permanent member of the UN Security Council, and one of the strategic partners of India.
  - ✓ Strengthening bonds with the trade would seek UKs support at global issues like standoff with China in the Ladakh sector of the Line of Actual Control (LAC) and claim for permanent seat at UNSC.
- **Review of Trades:**
  - ✓ India could seek a review of trading agreements including renegotiating tariffs on some items along with the tightening of provisions governing country-of-origin certification.

### Way Forward:

- India is one of the fastest growing large economies of the world and FTA with the UK has played a significant role in enhancing the trade volume of the country.
- However, according to policymakers, FTAs signed by India with the UK have not brought the expected tangible benefits and, on the contrary, have hurt the country's manufacturing sector due to liberal Rules of Origin.
- Therefore, there is a need for a detailed assessment of FTAs in terms of goods, services and investment flows by all the Stakeholders Involved.

## 6.1. INTERNATIONAL RELATIONS SNIPPETS

### 1. Program for International Student Assessment (PISA)

#### Why in News?

- The field trial of PISA (Program for International Student Assessment) is scheduled to be held from September, 2021.

#### Highlights:

- It is a competency-based test designed to assess the ability of the 15-year-old candidates that measures their reading, mathematics, and science literacy every three years to apply their knowledge to real-life situations.

- It is an international survey coordinated by the Organization for Economic Cooperation and Development (OECD) and was first conducted in 2000.
- India has participated in the PISA test only once before, in 2009. In this round of PISA, where students from Himachal Pradesh and Tamil Nadu sat for the test, India ranked 72nd out of 73 countries, outranking only Kyrgyzstan.
- Since then, India has strayed away from the test until now, for students from Chandigarh will be sitting for the test in 2022.
- Originally the main PISA survey was scheduled for 2021, but was postponed by one year owing to the pandemic.
- The learnings from participation in PISA will help to introduce competency-based examination reforms in the school system and help move away from rote learning. The CBSE and NCERT will be part of the process and activities leading to the actual test.
- It would lead to recognition and acceptability of Indian students and prepare them for the global economy in the 21st century.
- About Organization for Economic Cooperation and Development
- It was formed in 1961. It has 38 member countries. India is not a member but one of the key partners of the organisation.
- It is an international organisation, having a goal to shape policies that foster prosperity, equality, opportunity and well-being for all.
- It is headquartered at Paris, France.
- The Financial Action Task Force (FATF) Secretariat is located at OECD headquarters.

## 2. China's new Maritime Law

### Why in News?

- China's new maritime rules designed to control the entry of foreign vessels in what Beijing calls "Chinese territorial waters" take effect.



## What is the New Maritime Law?

- Foreign vessels, both military and commercial, will be henceforth required to submit to Chinese supervision in “Chinese territorial waters,” as per the new law.
- Operators of submersibles, nuclear vessels, ships carrying radioactive materials and ships carrying bulk oil, chemicals, liquefied gas and other toxic and harmful substances are required to report their detailed information upon their visits to Chinese territorial waters.
- Vessels that “endanger the maritime traffic safety of China” will be required to report their name, call sign, current position and next port of call and estimated time of arrival.
- The name of shipborne dangerous goods and cargo deadweight will also be required.

## Impact of the Move:

- The move is expected to have far-reaching consequences for passage of vessels, both commercial and military, in the disputed South China Sea, East China Sea and Taiwan Strait.
- It is likely to escalate the existing tension with the US and its neighbours in the region.

## Why is this Important?

- **South China Sea:** The South China Sea, which lies between China, Taiwan, the Philippines, Brunei, Malaysia, Indonesia and Vietnam, is of great economic importance globally.
- **Shipping:** Nearly one-third of the world’s shipping passes through its lanes, and the waters house numerous important fisheries.

## Significance for India:

- South China Sea is a critical route for India, both militarily and commercially.
- It plays a vital role in facilitating India’s trade with Japan, South Korea and ASEAN countries, and assists in the efficient procurement of energy supplies.
- More than 55% of India’s trade passes through the South China Sea and Malacca Straits.
- India is also involved in oil and gas exploration in offshore blocks in the margins of the Sea, which has led to standoffs with Chinese authorities.

## The Actual Row:

- The waters around China are hotly contested. Under a “nine-dash line” map, China claims most of the South China Sea as its sovereign territory.
- This claim is contested by its neighbors in the region and by the United States, which, though it has no claim in the Sea, backs the smaller nations in the fight against Chinese overreach.

## International Position:

- Currently, international maritime activities are governed by an international agreement called the United Nations Convention on the Law of the Sea (UNCLOS).
- China, India and over a hundred other countries are signatories of UNCLOS (the US, significantly, is not).
- Accordingly, states have the right to implement territorial rights up to 12 nautical miles into the sea.
- The UNCLOS also states that all vessels have the right of “innocent passage” through this region – China’s new law violates this.

## 3. Special Drawing Rights (SDR)

### Why in News?

- The International Monetary Fund (IMF) has recently made an allocation of Special Drawing Rights (SDR) 12.57 billion (equivalent to around \$17.86 billion at the latest exchange rate) to India.

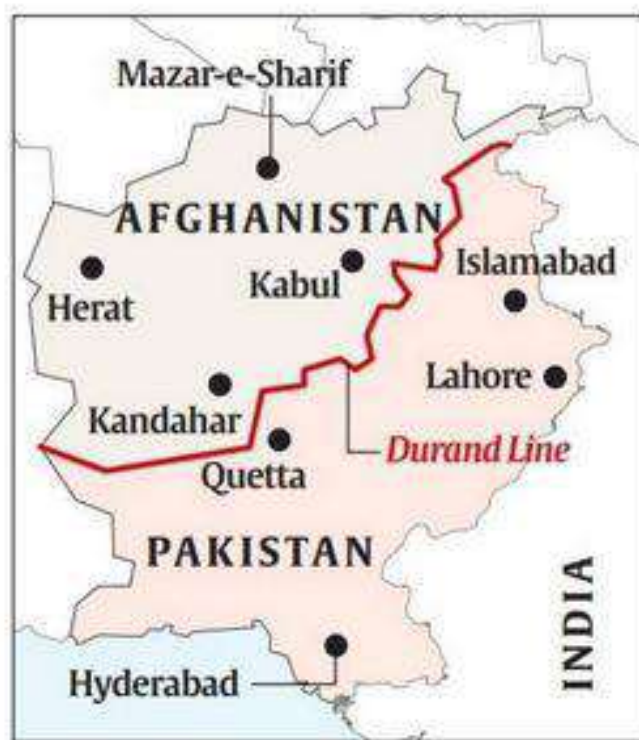
### Highlights:

- It is neither a currency nor a claim on the IMF. Rather, it is a potential claim on the freely usable currencies of IMF members. SDRs can be exchanged for these currencies.
- It serves as the unit of account of the IMF and some other international organizations.
- The currency value of the SDR is determined by summing the values in US dollars, based on market exchange rates, of a SDR basket of currencies.
- Its basket of currencies includes the US dollar, Euro, Japanese yen, pound sterling and the Chinese renminbi (included in 2016).
- Its currency value is calculated daily (except on IMF holidays or whenever the IMF is closed for business) and the valuation basket is reviewed and adjusted every Five Years.
- Its members’ voting power is related directly to their quotas. The IMF makes the general SDR allocation to its members in proportion to their existing quotas in the IMF.
- India's foreign exchange reserves also incorporate SDR other than gold reserves, foreign currency assets and Reserve Tranche in the IMF.

## 4. Durand Line

### Why in News?

- With the Taliban's seizure of Kabul, a huge exodus of Afghan refugees and asylum seekers is outpouring into Pakistan along the Durand Line.



### Durand Line:

- The Durand Line is a legacy of the 19th century Great Game between the Russian and British empires in which Afghanistan was used as a buffer by the British against a feared Russian expansionism to its east.
- The agreement demarcating what became known as the Durand Line was signed on November 12, 1893 between the British civil servant Henry Mortimer Durand and Amir Abdur Rahman, then the Afghan ruler.
- Abdur Rahman became king in 1880, two years after the end of the Second Afghan War in which the British took control of several areas that were part of the Afghan kingdom.
- He was essentially a British puppet.
- His agreement with Durand demarcated the limits of his and British India's "spheres of influence" on the Afghan "frontier" with India.
- The line stretches from the border with China to Afghanistan's border with Iran.
- An illogical separation

- In reality, the line cut through Pashtun tribal areas, leaving villages, families, and land divided between the two “spheres of influence”.
- It has been described as a “line of hatred”, arbitrary, illogical, cruel and a trickery on the Pashtuns.
- Some historians believe it was a ploy to divide the Pashtuns so that the British could keep control over them easily.
- It also put on the British side the strategic Khyber Pass.

### Cross-border Tensions at Durand Line:

- With independence in 1947, Pakistan inherited the Durand Line, and with it also the Pashtun rejection of the line, and Afghanistan’s refusal to recognize it.
- Afghanistan was the only country to vote against Pakistan joining the United Nations in 1947.
- ‘Pashtunistan’ — an independent country of the Pashtuns — was a demand made by Khan Abdul Ghaffar Khan at the time of Partition, although he later resigned himself to the reality of Partition. The proximity of the ‘Frontier Gandhi’ to India was a point of tension between the two countries almost immediately.
- The fear of Indian support to Pashtun nationalism haunts Pakistan to date, and is embedded in its Afghan policy.
- Pakistani support against the Pashtuns
- Pakistan’s creation and support for the Taliban is seen by some as a move to obliterate ethnic Pashtun nationalism with an Islamic identity.
- But it did not work out the way Pakistan had planned.
- When the Taliban seized power in Kabul the first time, they rejected the Durand Line.
- They also strengthened Pashtun identity with an Islamic radicalism to produce the Tehreek-e-Taliban Pakistan, whose terrorist attacks since 2007 left the country shaken.

## 5. Dementia

### Why in News?

- The WHO (World Health Organisation) recently released a report ‘Global status report on the public health response to dementia’.

### Highlights:

- It takes stock of progress made to date towards the 2025 global targets for dementia laid out in the WHO’s ‘Global Dementia Action Plan’ published in 2017.



- It is a syndrome – usually of a chronic or progressive nature – that leads to deterioration in cognitive function (i.e. the ability to process thought) beyond what might be expected from the usual consequences of biological ageing.
- It affects memory, thinking, orientation, comprehension, calculation, learning capacity, language, and judgement. However, the consciousness is not affected.
- 65% of total deaths due to dementia are women, and disability-adjusted life years (DALYs) due to dementia are roughly 60% higher in women than in men.
- Memory loss, Difficulties with thinking, Visual perception, Self-management, Problem solving or language and the ability to focus and pay attention.
- Personality changes, like depression, agitation, paranoia, and mood swings.
- When brain cells are damaged then dementia may occur. It can be caused by a head injury, a stroke, a brain tumour or due to HIV infection.
- There is currently no treatment available to cure dementia, though numerous new treatments are being investigated in various stages of clinical trials.
- Dementia is currently the seventh leading cause of death among all diseases and one of the major causes of disability and dependency among older people worldwide.
- More than 55 million people (8.1% of women and 5.4% of men over 65 years) are living with dementia. This number is estimated to rise to 78 million by 2030 and to 139 million by 2050.
- WHO's Western Pacific Region has the highest number of people with dementia (20.1 million), followed by the European Region (14.1 million).
- It is a resource for generalists, particularly in low- and middle-income countries, to help them provide first-line care for mental, neurological and substance use disorders.
- National Health Mission envisages achievement of universal access to equitable, affordable & quality health care services that are accountable and responsive to people's needs.

## 6. International Fund for Agricultural Development

### Why in News?

- International Fund for Agricultural Development (IFAD) has recently committed to focus 30% of its climate finance to support nature-based solutions in rural small-scale agriculture by 2030.

### Highlights:

- Ahead of the IUCN (International Union for the Conservation of Nature) World Conservation Congress (WCC), it calls for more investment to protect biodiversity.

- The IUCN convenes WCC every four years. The Congress brings together its various members, who vote on recommendations and set the agenda for the global conservation Efforts. It is an international financial institution and specialized United Nations agency working in the field of poverty eradication in the rural areas of developing countries providing grants and loans with low interest for Allied Projects.
- It works with marginalized and vulnerable groups such as farmers with small holdings, foresters, Pastoralists, Fishermen and small scale entrepreneurs by giving them disaster preparedness, access to weather information, technology transfer and social learning.
- It was created in 1977, which is the outcome of the World Food Conference of 1974.
- Its Headquarters is located Rome, Italy
- It has 177 member countries. India is also a member country.

## 7. World University Rankings 2022 edition

### Why in News?

- Recently, The Times Higher Education (THE) has released its World University Rankings 2022 edition.

### Highlights:

- THE, formerly known as The Times Higher Education Supplement (THES), is a magazine reporting specifically on news and issues related to higher education.
- Earlier, Quacquarelli Symonds (QS) released the QS World University Rankings 2022.
- The rankings cover the four main areas of university activity: teaching, research, knowledge transfer and international outlook and THE has been releasing data since 2004.
- Overall, India is home to 35 of the world's top 1,000 universities, its second-highest total ever in the rankings. Last year, it was 36.
- Top Performer was Indian Institute of Science (IISc) followed by IIT Ropar and JSS Academy of Higher Education and Research.
- Globally, the University of Oxford tops the ranking for the sixth consecutive year, while mainland China's Tsinghua University becomes the first Asian university to break into the top 20 under the current methodology (launched in 2011).
- Country-wise, the US is the most-represented country overall with 183 institutions.

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## 8. World's Northernmost Island

### Why in News?

- Recently, a new island has been discovered that is located off the Greenland's coast.

### Highlights:

- Measuring 60×30 metres and with a peak of three metres above sea level, it has now become the new northernmost piece of land on Earth. Before this, Oodaaq was marked as the Earth's northernmost terrain.
- It is made up of seabed mud and moraine, i.e. soil, rock and other material left behind by moving glaciers, and has no Vegetation.
- The researchers have suggested the discovery be named 'Qeqertaq Avannarleq', which is Greenlandic for "the northernmost island".
- The discovery comes as a battle is looming among Arctic nations, the US, Russia, Canada, Denmark and Norway for the control of the North Pole and of the surrounding seabed, fishing rights and shipping routes exposed by melting ice due to climate change.
- Global warming might have had a severe effect on the ice sheet of Greenland, but the new island however is not a direct consequence of climate change.

