Carbon Disclosure Project India report 2019

Chirang
Kokrajhar Baksa Udalguri
Brahmaputra River
ASSAM
Bangladesh

■ Bodoland Territorial Autonomous Districts

Map not to scale

Alternatives to **plastic**

Compostable coffee cups
Personal care products using wood and bristle

Juta
Silk
Kenaf
Wood
Milk
Mohair
Natural polymers and **organic materials** that biodegrade rapidly
Bamboo
Cotton
Wool
Flax
Abaca
Linen

Bamboo straws
Paper and card
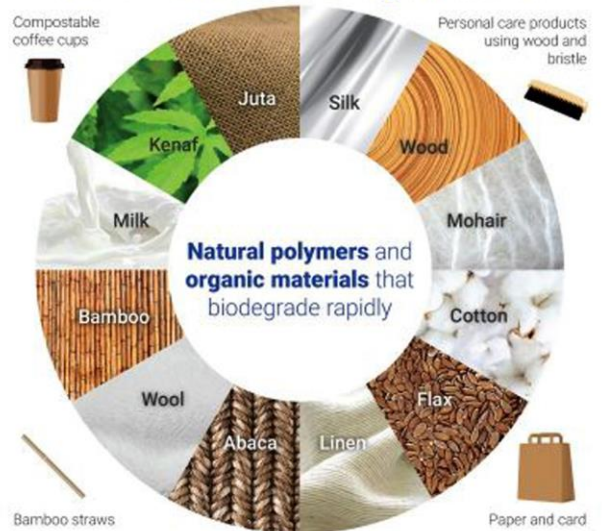
Dedicated Freight Corridor Corporation of India Ltd.

A Government of India (Ministry of Railways) Enterprise

FATF

Financial Action Task Force

IAS GATEWAYY

CURRENT AFFAIRS

FORTNIGHTLY - JANUARY 20-31

Index

1. ECONOMY

1.1 ECONOMY SNIPPETS

2. ENVIRONMENT

2.1 ENVIRONMENT SNIPPETS

3. POLITY & GOVERNANCE

3.1 POLITY & GOVERNANCE SNIPPETS

4.SCIENCE & TECHNOLOGY

4.1 SCIENCE & TECHNOLOGY SNIPPETS

5.SOCIAL ISSUES

6.INTERNATIONAL RELATIONS

6.1 INTERNATIONAL RELATIONS SNIPPETS

1. Is 'Make in India' a Failure?

Context:

- Five years later, as we brace for another Union Budget, it would be appropriate to take stock of the much-hyped initiative which is on a slippery slope.

Major Objectives of Make in India:

- To increase the manufacturing sector's growth rate to 12-14% per annum in order to increase the sector's share in the economy.
- To create 100 million additional manufacturing jobs in the economy by 2022
- To ensure that the manufacturing sector's contribution to GDP is increased to 25% by 2022 (revised to 2025) from the current 16%.
- The policy approach was to create a conducive environment for investments, develop modern and efficient infrastructure, and open up new sectors for foreign capital.

Outcomes of the Scheme:

- The last five years witnessed slow growth of investment in the economy. This is more so when we consider capital investments in the manufacturing sector. Gross fixed capital formation of the private sector, a measure of aggregate investment, declined to 28.6% of GDP in 2017-18 from 31.3% in 2013-14 (Economic Survey 2018-19).
- Interestingly, though the public sector's share remained more or less the same during this period, the private sector's share declined from 24.2% to 21.5%. Part of this problem can be attributed to the decline in the savings rate in the economy.
- Household savings have declined, while the private corporate sector's savings have increased.
- Thus we find a scenario where the private sector's savings have increased, but investments have decreased, despite policy measures to provide a good investment climate. Regarding employment growth, we have witnessed questions being raised over the government's delay in releasing data as well as its attempts to revise existing data collection mechanisms. Employment, especially industrial employment, has not grown to keep pace with the rate of new entries into the labour market.

What could be the Reasons for Failure?

- The bulk of these schemes relied too much on foreign capital for investments and global markets for produce. This created an inbuilt uncertainty, as domestic production had to be planned according to the demand and supply conditions elsewhere.

- Policymakers neglected the third deficit in the economy, which is implementation. While economists worry mostly about budget and fiscal deficit, policy implementers need to take into account the implications of implementation deficit in their decisions.

- It set out too ambitious growth rates for the manufacturing sector to achieve. An annual growth rate of 12-14% is well beyond the capacity of the industrial sector. Historically India has not achieved it and to expect to build capabilities for such a quantum jump is perhaps an enormous overestimation.

- Its initiative brought in too many sectors into its fold. This led to a loss of policy focus. Further, it was seen as a policy devoid of any understanding of the comparative advantages of the domestic economy. Given the uncertainties of the global economy and ever-rising trade protectionism, the initiative was spectacularly ill-timed.

2. Green Clearances Waived for Onshore and Offshore Oil Exploration

Why in News?

- The Environment Ministry has exempted oil and Gas Firms, looking to conduct exploratory drilling, from seeking an Environmental Clearance.

Highlights:

- Until now, even exploratory surveys have required the highest level of environmental Scrutiny, called category 'A', that needed project proponents to prepare an environment Impact Assessment (EIA) plan, have it scrutinised by a Centrally constituted committee of experts and subject the proposal to a public hearing involving the local residents of the proposed project site.

- The clearance is for both on-shore and offshore drilling explorations and the process is an ecologically-intensive exercise that involves digging multiple wells and conducting seismic surveys offshore. Even category A projects are frequently exempted if they are offshore. The new amendments demote exploratory projects to the category of 'B2'.

- This means it will be conducted by the States concerned and will not require an EIA. The move is part of a larger process of 'decentralisation' by the Centre in that it seeks to farm more regulatory actions to State and local units.

- Developing an offshore or onshore drilling site as a hydrocarbon block will however continue to merit a "category A" treatment. Environmentalists argue that offshore drilling operations can possibly effect fish, lead to a build-up of heavy water contaminants, disorient whales and sea life that rely on sonar for navigation and exacerbate the risk of oil

spills. The government in 2019 relaxed rules that incentivises companies conducting oil exploration surveys in less-explored oil fields to keep a greater share of revenue if they chance upon viable hydrocarbon blocks. This has led to a rise in interest in oil and gas exploration with the Cauvery basin registering a boost in activity.

3. Financial Action Task Force (FATF)

Context:

- Recently the Asia-Pacific Group (APG) of The Financial Action Task Force (FATF) in Beijing cleared Pakistan on 14 out 27 action plans.

About FATF:

- It is an intergovernmental body established in 1989 by the **Group of Seven (G-7)** countries in Paris, France. It was formed with the intention to examine and develop measures to combat money laundering.

Objectives:

- To set standards and promote effective implementation of legal, regulatory and operational measures for combating: Money laundering; Terrorist financing; and threats to the integrity of the international financial system.

- It has formed 40 recommendations against money laundering and 9 special recommendations against terrorist financing, which forms the commonly known '40+9' FATF Standards. It issues a list of 'Non-Cooperative Countries or Territories' (NCCTs), commonly called the (FATF Blacklist).
- These countries or territories are considered to be uncooperative in international efforts against money laundering and terrorism financing.

FATF Grey List:

- It is a list of countries or territories with deficiencies in anti-money laundering and/or countering the financing of terrorism, for which they have developed an action plan with the FATF.

Grey List and Pakistan:

- Pakistan was put on the grey list in 2012 after the completion of an earlier Mutual Evaluation by FATF, and therefore had to follow the action plan suggested by FATF. In 2015, it was taken off the grey list, after the FATF was satisfied with Pakistan's measures undertaken to counter terror financing.

- The US, UK, France and Germany, started a process at the FATF to cosponsor a motion to nominate Pakistan as a country having strategic deficiencies in countering financing of terrorism. This motion was passed in March, 2018.
- FATF in June, 2018 placed Pakistan on the 'grey list' for failing to curb anti-terror financing despite after submitting a 26-point action plan to FATF.
- The other countries on the list **are Ethiopia, Serbia, Sri Lanka, Syria, Trinidad and Tobago, Tunisia and Yemen**

Background:

- The APG of FATF declared that Pakistan had progressed in its efforts to avoid blacklisting.
- Pakistan was placed on the grey list in 2018 by FATF and directed to take 27-point actions with respect to terror funding and money laundering.
- Accordingly FATF directed Pakistan to freeze the funds of 26/11 mastermind LeT, Hafiz Saeed, Jaish-e-Mohammed (JeM) and other Taliban-affiliated groups.
- For Pakistan to come out of grey-list it would need an extra 12 votes in addition to continued support from China, Turkey, Saudi Arabia, Malaysia and West Asian countries that it Already Gets.

4. Air India Disinvestment

Why in News?

- The Government has kicked off the complete disinvestment process of Air India for the second time after it failed to receive a single bid in the first attempt back in 2018.

100% Stake Sale:

- Most significantly, the government will offload 100% of its stake in Air India, compared with 76% put on the block last time.
- The government holding even a minor stake in the airline post disinvestment was seen as a huge negative for any potential buyers.
- The buyer will have to take on Rs 23,286 crore of debt out of a total Rs 60,074 crore.
- Compared with this, in the last attempt, a potential buyer would have to take on Rs 33,392 crore of debt and current liabilities.
- The amount of debt being bundled with the airline in this attempt is towards the aircraft that are being sold off along with the carrier as part of the transaction.
- The working capital and other non-aircraft debt will be retained by the Government.

Employees:

- All present employees of Air India totalling as many as 9,617 permanent employees, including pilots and cabin crew, will go to the new buyer.
- The buyer should retain these employees for a certain lock-in period, which would be divulged in the share Purchasing Agreement. The government is exploring different modalities to ensure that the retired staff members have a Medical Cover.

Eligibility:

- Any private or public limited company, a corporate body and a fund with a net value of ₹3,500 crores will be eligible to bid.
- The present offer involves a clean exit by the government and complete transfer to the private player. This would ensure the private players enough freedom to run the state of affairs in the company without many regulations.
- The bid document also states that the existing FDI policy, which allows a foreign airline to buy up to 49% in Air India, will continue to apply.

Air India's Assets:

- The new owner will be taking on a fleet of 121 aircraft in Air India's fleet and 25 planes in Air India Express' fleet.
- These exclude the four Boeing 747-400 Jumbo jet aircraft that the airline plans to transfer to its subsidiary Alliance Air, which is not a part of the current transaction.
- However, like the last attempt, the properties currently in use by Air India, including the Nariman Point building and the company's headquarters near Connaught Place in New Delhi will be retained by the government.

Pro's of Air India:

- Air India has a 50.64% market share in international traffic among Indian carriers.
- The government is hopeful of attracting investors with the new sale criteria, coupled with the main benefits of the airline, which are prime slots in capacity-constrained airports across the world.
- However, any potential investor is also expected to look at the size of the airline's operations with reference to what those operations generate.
- For example, both Air India and Singapore Airlines operate with a fleet of 121 aircraft, but in 2018-19 Air India posted a net loss of Rs 8,556 crore, whereas Singapore Airlines reported a net profit of Singapore $ 779.1 million (Approx Rs 4,100 crore).

1.1 ECONOMY SNIPPETS

1. Dedicated Freight Corridor Corporation of India (DFCCIL)

Why in News?

- The 14th Foundation Day of Dedicated Freight Corridor Corporation of India (DFCCIL) was celebrated in New Delhi.

DFCCIL:

- The Dedicated Freight Corridor Corporation of India Limited or DFCCIL is a business establishment operated by the Railways Ministry of the Government of India to work the dedicated freight corridors (DFCs).

- It engages in the planning and development, deployment of monetary resources, building, upkeep and the operation of the DFCs.
- DFCCIL has been assigned the status of 'special purpose vehicle' by the Indian government.

Objectives:

- To build a corridor with appropriate technology that enables New Monsoon Dates to be Announced to regain its market share of freight transport by creating additional capacity and guaranteeing efficient, reliable, safe and cheaper options for mobility to its customers.
- To set up Multimodal logistic parks along the DFC to provide complete transport solution to customers.
- To support the government's initiatives toward ecological sustainability by encouraging users to adopt railways as the most environment-friendly mode for their Transport Requirements.

2. Karwar Port

Why in News?

- The High Court of Karnataka has recently directed the State government to stop all the developmental activities being undertaken at Karwar port under the Sagarmala Project.

About Karwar Port:

- It is located in Uttar Kannada district at the Southern side of the Kali River.
- It is sandwiched between the Arabian sea on one side and the Western Ghats on the other.
- It is known as Kashmir of Karnataka as it is blessed with a wide variety of flora and fauna.

About Sagarmala Project:

- It aims at holistic port infrastructure development along the 7,516-km long coastline through modernisation, mechanisation and computerisation.
- It also includes the establishment of rail/road linkages with the port terminals, thus providing last-mile connectivity to ports; development of linkages with new regions enhanced multi-modal connectivity including rail, inland water, coastal and Road Services.

1. New Monsoon Dates to be Announced

Why in News?

- The Earth Sciences Secretary has announced that the India Meteorological Department (IMD) has decided to revise the normal onset and withdrawal dates for the monsoon in some parts of the country from this year.

Highlights:

- The four-month southwest monsoon season, which brings as much as 70 per cent of the country's annual rainfall, officially begins on June 1, with the onset over Kerala, and ends on September 30.
- The monsoon takes about a month and half after onset on the Kerala coast to cover the entire country and about a month, beginning from the north-western parts of the country on September 1, to withdraw completely.
- Although the June 1 date for the onset of the monsoon on the Kerala coast is unlikely to be changed, the dates for onset in many other parts of the country are expected to be revised. Adjustments are likely to be made for many other parts of the country as well. Similar changes are expected in the withdrawal dates.
- Effectively, the monsoon is now expected to have later arrival and withdrawal dates in most parts of the country.
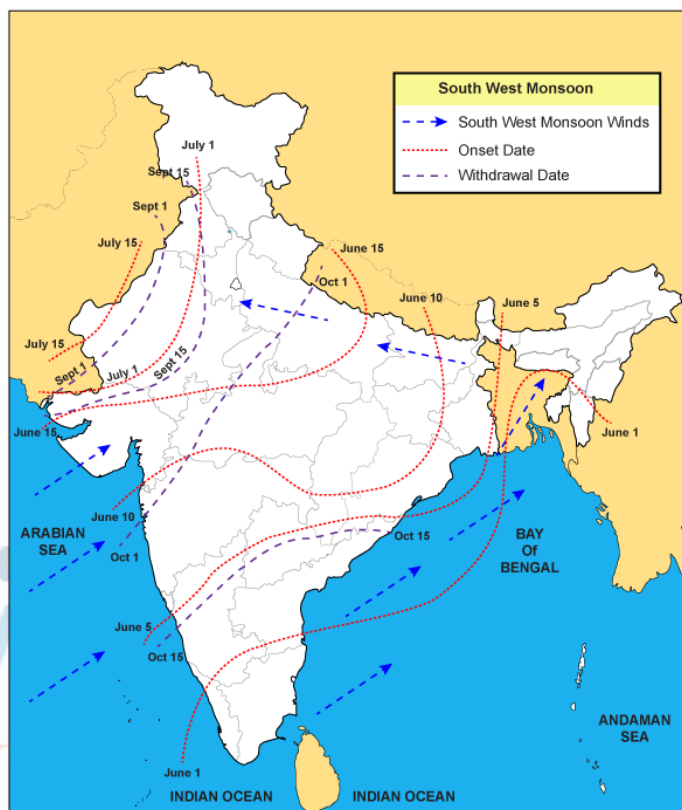
Reason for Changes:

- The Main Reason for the revision in the normal dates is the changes in precipitation patterns that have been taking place over the last many years.
- In the last 13 years, for example, only once has the onset over the Kerala coast happened on June 1. While two or three days of earlier or later onset falls within the yearly variability, in several years the onset happened five to seven days late.

- Similarly, the commencement of withdrawal has happened in the first week of September only twice during this period, and last year, the withdrawal started as late as October 9 and was completed in around just a week.
- One of the significant changes being noticed is that rainfall is getting increasingly concentrated within a narrow band of days within the monsoon season. So, there are extremely wet days followed by prolonged periods of dry days.
- Areas that have traditionally received plenty of rainfall are often remaining dry, while places that are not expected to get a lot of monsoon rain have sometimes been getting flooded.

Impact of the Changes:

- New dates will likely nudge farmers in some parts of the country to make slight adjustments in the time of sowing their crops.
- If the rainfall over the rice-growing regions occurs very late, then the transplantation of rice would be affected, which in turn could hit the crop yield.
- Water management agencies managing the dams in the central plains, should now expect more rain only in the latter part of June.
- Instead of planning only until the start of June, they would now be prompted to preserve and hold on to some water until later in the month.
- The change in normal dates of the onset and withdrawal of the monsoon would help people understand when to expect rains, and to plan their activities accordingly.

2. Alternatives to Plastic

Context:

- The Prime Minister of India has stressed on the need to find an alternative to Plastic in order to keep the environment safe. Though there are several alternatives to plastic like glass, paper, cardboard exist, their aspects such as recycling rate, safety, affordability have to be looked into, to promote them as viable alternatives.

Alternatives to **plastic**

What are Single Use Plastics?

- Single used plastics are those plastics which are used once and thrown away.

- Almost half of the plastic produced in the world is designed to be used only once.
- It has been found everywhere, right from depth of the oceans to the peaks of Himalayas.
- They accumulate in the water bodies and choke the drains which lead to floods.

India and Single use plastics:

- Single use plastic was banned in India last year on the 150th Birth Anniversary of Mahatma Gandhi.
- However, its implementation is found to be complex. Because, there is no comprehensive definition for single-use plastic, crucial for any ban to be successful.
- Governments currently use various definitions.

Plastic pollution in Oceans:

- Merchant ships expel cargo, sewage, used medical equipment, and other types of waste that releases plastic into the ocean.
- The largest ocean-based source of plastic pollution is discarded fishing gear - including traps and nets (Ghost nets).
- Continental plastic litter such as food wrappers & containers, bottles and container caps, plastic bags, straws and stirrers etc. enters the ocean largely through storm-water runoff.

Difficulty in Promoting Alternatives:

- Although compostable, biodegradable or even edible plastics made from various materials such as bagasse (the residue after extracting juice from sugarcane), corn starch, and grain flour are promoted as alternatives, these currently have limitations of scale and cost.
- In India in the absence of robust testing and certification to verify claims made by producers, spurious biodegradable and compostable plastics are entering the marketplace.
- Recently, the CPCB had taken action against the companies that were marketing carry bags and products marked 'compostable' without any certification.
- Petroleum-based plastic is non-biodegradable and usually goes into a landfill where it is buried, or it gets into the water and finds its way into the ocean.

Solutions to the Plastic Problem:

- Comprehensive mechanism to certify the materials marketed as alternatives, and the specific process required to biodegrade or compost them.
- Promoting innovation in packaging, upscaling waste segregation, collection and Transmission. Recovering materials from garbage should be a high priority, considering that India is the third highest consumer of materials.

- Reduction of single use plastic used in multilayer packaging, bread bags, food wrap, and protective packaging.
- Municipal and pollution control authorities must also be held accountable for the lapses.

Global Best Practices:

- Plastic bag fee is levied in cities like Chicago and Washington, such interventions could be effective in shaping behaviour change.
- The European Union is mulling new laws to ban some single-use plastic products including straws, cutlery and plates citing plastic litter in oceans as the concern prompting the action. Countries such as the U.S., Canada and the Netherlands have already put in place regulations to stop the use of microbeads in personal-care products.
- Encouraging 'plogging': Picking up litter while jogging was kick-started on a small scale in a small part of Stockholm about an year ago, it has spread across the globe and India can adopt this as well.

Challenges Ahead:

- Plastic in oceans and forests are choking flora and fauna. In fact, plastic trash is expected to exceed the fish population by 2050.
- Microplastics have ability to enter food chain with the highest concentration of the pollutants in it. The Plastic Waste Management Rules Amendment, 2018, omitted explicit pricing of plastic bags that had been a feature of the 2016 Rules.
- Waste plastic from packaging of from food, cosmetics and groceries to goods delivered by online platforms remains unaddressed.
- The fast-moving consumer goods (FMCG) sector that uses large volumes of packaging, posing a higher order challenge. Lack of adequate infrastructure for segregation and collection is the key reason for inefficient plastic waste disposal.
- Small producers of plastics are facing the ban, while more organised entities covered by the Extended Producer Responsibility clause continue with business as usual.
- Lack of consultation with stakeholders such as manufacturers of plastics, eateries and citizen groups: This leads to implementation issues and inconvenience to the consumers.
- Exemptions for certain products such as milk pouches and plastic packaging for food items severely weaken the impact of the ban.
- No investment in finding out alternative materials to plug the plastic vacuum: Until people are able to shift to a material which is as light-weight and cheap as plastic, banning plastic will remain a mere customary practice.

- Lack of widespread awareness among citizens about the magnitude of harm caused by single-use plastic: Without citizens 'buying in' to a cause, bans only result in creating unregulated underground markets.
- No strategy to offset the massive economic impact: Sweeping bans like the one in Maharashtra are likely to cause massive loss of jobs and disruption of a large part of the economy dependent on the production and use of plastic.

Way Forward:

- Promote alternatives like cotton, khadi bags and bio-degradable plastics.
- Provide economic incentives to encourage the uptake of eco-friendly and fit-for-purpose alternatives that do not Cause More Harm.
- Reduce or abolish taxes on the import of materials used to make alternatives.
- Provide incentives to industry by introducing tax rebates or other conditions to support its transition.
- Use revenues collected from taxes or levies on single-use plastics to maximize the public good. Boost local recycling: Create jobs in the plastic recycling sector.
- Individuals and organizations should be encouraged to remove plastic waste from their surroundings and municipal bodies must arrange facilities to collect these articles. Start-up industries shall make use of the opportunity to innovate in the field of waste management, which is the need of the hour.

3. Exemptions from Environmental Clearances

Why in News?

- The Environment Ministry has recently issued a notification to exempt oil and gas firms from seeking environmental clearance for on-shore and offshore Drilling Explorations.

Background Info:

- Onshore drilling refers to drilling deep holes under the earth's surface whereas offshore drilling relates to drilling underneath the seabed. Previously, exploratory surveys required the highest level of environmental scrutiny and were classified under category 'A' projects.
- The category 'A' project needs to prepare an EIA plan and is scrutinised by a **Centrally-constituted committee of experts.**
- The project would also be subject to a public hearing involving the locals of the proposed Project Site.

Key Points of the Recent Notification:

- The notification has **demoted exploratory projects to the category of 'B2' from category 'A'** in the Environment Impact Assessment (EIA) process.
- Category B projects are **appraised at the state level** and they are classified into two types.
    1. Category B1 projects (Mandatorily requires EIA).
    2. Category B2 projects (Do not require EIA).
- However, the development of an offshore or onshore drilling site as a hydrocarbon block will continue to be classified as a "category A".
- This notification is a part of a process of 'decentralisation' by the Centre as it seeks to delegate more regulatory actions to State and local units.

Concerns with the Recent Move:

- The exploratory drilling process is an ecologically-intensive exercise that involves digging multiple wells and conducting seismic surveys offshore. Thus exemptions may cause loss of Biodiversity. The offshore drilling operations can possibly affect fish, lead to a build-up of heavy water contaminants, disorient whales and sea life. The risk of oil spills threatens the coastal as well as terrestrial ecosystems. Thus exempting the projects which has Possible Environmental concerns further Aggravates the Issue.

4. Carbon Disclosure Project Report 2019

Why in News?

- The Carbon Disclosure Project (CDP) 2019 report was recently published.

Carbon Disclosure Project:

- CDP is published by the Global Reporting Initiative.
- It is aimed at measuring the carbon reduction activities undertaken by Different Companies and firms operating in various countries across the Globe.
- The report surveys corporate commitments to science-based targets (SBT) and evaluates the climate change risk that they are exposed to.

India's Performance:

- India secured the 5th spot on the project report.
- India is the First Developing Economy with a maximum number of companies committing to the science-based targets. The CDP Report 2019 said that a total of 58 companies shared details about the environment-related activities undertaken by them in this year.

- The report also claims that over 98 percent of top Indian companies have formed some type or committee or group within its organization to drive and address climate-related issues. The report also showcased the changing mind-set of India Inc with nearly all major companies setting up some form of oversight to evaluate climate risk.

Global Scenario:

- The US topped the annual CDP report with 135 companies disclosing their climate-related activities, followed by Japan in the second position with 83 companies and the UK in the third position with 78 countries.
- While France was placed fourth with 51 companies disclosing their details, India was placed fifth with 38 companies committing to the science-based Targets.
- In 2018, India had only 25 companies committing to the SBTs.
- India is followed by Germany and Sweden with 30 and 27 companies respectively, while Switzerland and Spain had 23 and 22 companies respectively.
- Netherlands was listed 10th on the list with 18 companies committing to SBT initiatives.

5. African Cheetahs to prowl Indian Forests

Why in News?

- The Supreme Court has lifted its seven-year stay on a proposal to introduce African cheetahs from Namibia into the Indian habitat on an Experimental Basis.

About Cheetahs:

- Cheetahs (Acinonyx jubatus) are large cat of the subfamily Felinae and are considered as the fastest land animal.
- The 4 subspecies of cheetahs are **Southeast African cheetah, Asiatic cheetah, Northeast African cheetah and Northwest African cheetah**.
- They are found in North, Southern and East Africa, and a few localities in Iran.
- It inhabits a variety of mostly arid habitats like dry forests, scrub forests, and savannahs.
- The cheetah has been classified as **Vulnerable** by the **IUCN**; and listed under **Appendix I** of **CITES** (Convention on International Trade in Endangered Species).

Reasons behind Extinction of Cheetah:

- **Loss of Grassland Habitat:** Inability to breed while in captivity meant that wild cheetahs were only found in natural habitats. Thus loss of habitat meant detrimental to Cheetah population.

- **Cheetahs were classified as vermin** (harmful to crops and spreads diseases) during British period. This led to rewarding the act of killing of Cheetah.
- Problems like **Human-Wildlife Conflict, loss of prey, and illegal trafficking**, have also decimated their Numbers.

About Cheetah Reintroduction Programme:

- The last Cheetah died in Chhattisgarh in 1947 after which it was declared extinct in India in 1952. Since 1970s India is trying to bring back the big cat from Iran. However due to lower number of cheetahs in Iran it was not considered being feasible.
- In 2009, the reintroduction project has got a fillip and India was exploring a plan of importing the South African cheetah from Namibia for reintroduction in India.
- 3 regions were shortlisted for reintroduction including:
- The Nauradehi Wildlife Sanctuary and Kuno-Palpur Wildlife Sanctuaries in Madhya Pradesh and the Shahgarh bulge landscape in Jaisalmer, Rajasthan.

Why Reintroduction Programme Delayed?

- IUCN guidelines require a no-objection certificate for translocation of wildlife species. Besides the guidelines warn against the introduction of alien or exotic species. Finally in December 2018, IUCN gave no-objection certificate for translocation.

PROPOSED REINTRODUCTION SITES IN MADHYA PRADESH AND RAJASTHAN

Since the Shahgarh Landscape is fenced along the border region, the addition of more fencing will ensure adequate protection for the cheetah population.

The Kuno-Palpur Wildlife Sanctuary in Madhya Pradesh has the potential to hold populations of the tiger, the leopard, the Asiatic lion as well as the cheetah, which are four of India's big cats.

The Nauradehi Wildlife Sanctuary (1197km²) is part of a much larger forested landscape (5500km²) which can host the cheetah.

- The reintroduction plan to Kuno-Palpur Wildlife Sanctuary hit a roadblock as it was also been shortlisted for introduction of Asiatic Lions from Gir forest in Gujarat. A petition was filed in the Supreme Court with respect to this and now it has lifted its stay order.
- Lack of funds hindered the reintroduction project in Nauradehi sanctuary in MP. Recently MP has shown interest in revival of the cheetah reintroduction project.
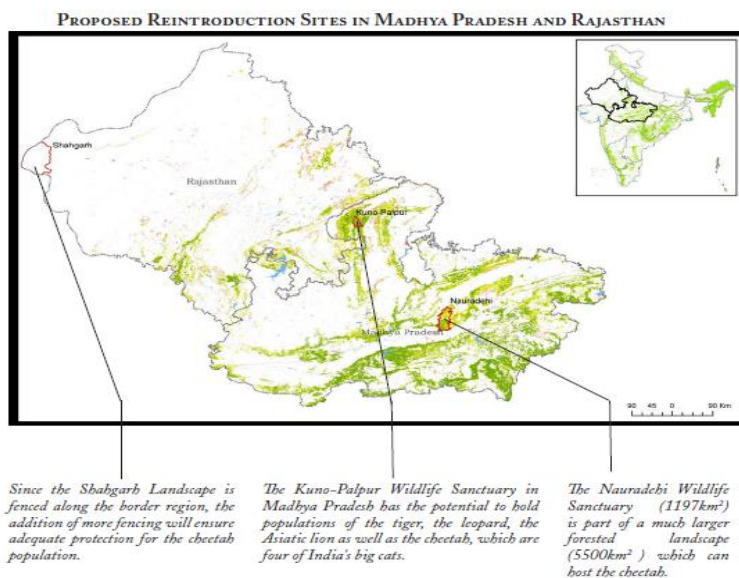
Implications of the Reintroduction:

- Reintroducing cheetahs in India will help relieve pressure on the species by creating additional habitat, which the cheetah desperately needs to survive.

- It will also help increase the species genetic diversity.
- Being one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.
- With great speed and dexterity, the cheetah is known for being an excellent hunter, its kills feeding many other animals in its ecosystem—ensuring that Multiple Species Survive.

6. Plastic Waste Management

Why in News?

- Recently, The Central Pollution Control Board (CPCB) has told the National Green Tribunal (NGT) that e-commerce giants Amazon and Flipkart need to fulfil their extended producer responsibility.

Central Pollution Control Board:

- It is of India is a statutory organisation under the Ministry of Environment, Forest and Climate Change. It was established in 1974 under the Water (Prevention and Control of Pollution) Act, 1974. It is also entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981.

Extended Producer Responsibility (EPR):

- It is a policy approach under which producers are given a significant responsibility – financial and physical – for the treatment or disposal of post-consumer products.
- It provides incentives to prevent wastes at the source, promote product design for the environment and support the achievement of public recycling and materials management goals.

Plastic Waste Management Rules, 2016:

- According to the rules, the Primary responsibility for collection of used multi-layered plastic sachet or pouches or packaging is of **Producers, Importers and Brand Owners** who introduce the products in the market.
- They need to establish a system for collecting back the plastic waste generated due to the packaging of their products.
- The 2016 rules were amended in 2018, laying emphasis on the phasing out of Multi-layered Plastic (MLP), which are "non-recyclable, or non-energy recoverable, or with no alternate use."
- It is framed in 2016 which extended the responsibility to collect waste generated from the products to their producers (i.e. persons engaged in the manufacture, or import of carrying

bags, multi-layered packaging and sheets or like and the persons using these for packaging or wrapping their products) and brand owners.

- They have to approach local bodies for the formulation of plan/system for the plastic waste management within the prescribed time frame.
- It has been extended to villages as well. Earlier, it was limited to municipal districts.
- It prescribes a central registration system for the registration of the producer/importer/brand owner.
- It also provided that registration should be automated and take into account ease of doing business for producers, recyclers and manufacturers.
- **Central Pollution Control Board (CPCB)** has been mandated to formulate the guidelines for thermoset plastic (plastic difficult to recycle).
- The **national registry** has been prescribed for producers with a presence in **more than two states**, a **state-level registration** has been prescribed for **smaller producers/brand owners** operating within one or two states.

Way Ahead:

- Using of plastic packing constitutes more than 40% of the total plastic waste generated in India. It is important to direct the usage to Plastic Packing Materials and shift to Environment-Friendly Packing Material.
- **Biodegradable plastic** is plastic made from all-natural plant materials (including corn oil, orange peels, starch, and plants etc.).
- It can decompose naturally in the environment when microorganisms in the soil metabolize and break down the structure of Biodegradable Plastic.

7. Guidelines - Sand Mining

Why in News?

- Recently, the Ministry of Environment, Forests and Climate Change (MoEFCC) has released guidelines to monitor and check Illegal Sand Mining in the country.

The Constitutional Framework of Mining Sector in India:

- The State List, mandates the state government to own the minerals located within their boundaries.
- The Central List, mandates the central government to own the minerals within the exclusive economic zone of India (**EEZ**). In pursuance to this Mines & Minerals (Development and Regulation) (MMDR) Act of 1957 was framed.

- The Central Government notifies certain minerals as 'minor' minerals from time to time for which the absolute powers for deciding on procedures of seeking applications for and granting mineral concessions, fixing rates of royalty, dead rent, and power to revise orders **rest only with the State Government.** For Example, building stones, gravel, ordinary clay, ordinary sand are few Minor Minerals.

The Mines and Minerals (Development and Regulation) Act, 1957:

- The Mines and Minerals (Development and Regulation) Act, 1957 has empowered state governments to make rules to prevent illegal mining, transportation and storage of minerals.

- For minerals specified in **the First Schedule to the Mines and Minerals (Development and Regulation) Act, 1957** approval of the Central Government is necessary.

- It contains minerals such as coal and lignite, minerals of the "rare earths" group containing Uranium and Thorium.

Enforcement and Monitoring Guidelines for Sand Mining 2020

- **END to END Monitoring:** The new set of guidelines focuses on the effective monitoring of sand mining from the identification of sand mineral sources to its dispatch and end-use by consumers and the general public and look at a uniform protocol for the whole country.

- Constantly monitor mining with drones and night surveillance of mining activity through night-vision drones.

- **Audits in Sand Mining**: States to carry out river audits, put detailed survey reports of all mining areas in the public domain.

- **Transparency in Purchasing**: Online sales and purchase of sand and other riverbed materials (RBM) for transparency in the process.

- **Enforcement of the Rules**: It gives directions to states to set up dedicated task forces at district levels.

- In cases where rivers become district boundaries or state boundaries, the districts or states sharing the boundary shall constitute the combined task force for monitoring of mined materials, mining activity and participate in the preparation of **District Survey Reports (DSR)** by providing appropriate inputs.

- **Sustainability of Mineral Resource:** Conduct replenishment study for river bed sand in order to nullify the adverse impacts arising due to excessive sand extraction.

- No riverbed mining will be allowed during the monsoon.

- The government has found that the DSRs carried out by state and district administrations are often not comprehensive enough, allowing space for illegal mining.
- The new guidelines, includes the development of an inventory, for the first time, of river bed material and other sand sources in the district.

What is Sand Mining?

- Sand Mining is an activity referring to the process of the actual removal of sand from the foreshore including rivers, streams and lakes. Sand is mined from beaches and inland dunes and dredged from ocean beds and river beds.

Impacts of Excess Sand Mining:

- River sand is preferred for construction because it requires less processing and has better quality than other sources.
- But it comes at a huge cost to the river and those living around it. Excessive sand mining can alter the river bed, force the river to change course, erode banks and lead to Flooding. It also destroys the habitat of aquatic animals and micro-organisms besides affecting groundwater recharge.

2.2 ENVIRONMENT SNIPPETS

1. Steppe Eagle

Why in News?

- A lone endangered steppe eagle (Aquila nipalensis) has been sighted by a group of birdwatchers in a paddy field at Velagaleru near Vijayawada.

About:

- Steppe eagle is believed to be the second-largest migratory eagle species to India.
- In winter, steppe eagle breeds in Russia, Kazakhstan, and Mongolia.
- Conversion of open habitats to aquaculture, pesticides and various effluents are a few threats to the species.
- IUCN categorizes it as **Endangered** in its Red list.

2. Irrawaddy Dolphins

Context:

- Recently, Dolphin Census in Chilika lake reported the direct sighting of 146 Irrawaddy dolphins.

- It is being carried out using Hydrophone monitoring technique. A hydrophone is a microphone designed to be used underwater for recording or listening to underwater sound.

About the Irrawaddy Dolphins (Orcaella Brevirostris):

- They are found in coastal areas in South and Southeast Asia, and in three rivers: the Irrawaddy (Myanmar), the Mahakam (Indonesian Borneo) and the Mekong (China).

- They are listed as 'Critically Endangered' as per the IUCN Red List.

- Their total population of these aquatic mammals in the world is estimated to be less than 7,500. More than 6,000 Irrawaddy dolphins have been reported from Bangladesh.

- Their distribution in Chilika is considered to be the highest single lagoon population.

About Chilika Lake:

- It is Asia's largest and world's second-largest lagoon.

- It lies on the east coast of India in the state of Odisha, separated from the mighty Bay of Bengal by a small strip of sand.

- It is the largest wintering ground for migratory birds on the Indian sub-continent and is home to a number of threatened species of plants and animals.

- It is designated the first Indian wetland of international importance under the Ramsar Convention, in 1981. It has the large Nalabana Island (Forest of Reeds) covering about 16 sq km, which was declared a bird sanctuary in 1987.

3. IVF helping White Rhino Population to Increase

Why in News?

- Researchers said that they have created another embryo of the nearly extinct northern white rhino, a remarkable success in an ongoing global mission to keep the species from Going Extinct.

Highlights:

- The Kenyan conservancy looking after the last male northern white rhino was forced to euthanise it in March 2018.

- The death of Sudan, who was earlier at the Dvur Kralove Zoo in the Czech Republic, left the world with only two northern white rhinos.

- The northern white is one of the two subspecies of the white (or square-lipped) rhinoceros, which once roamed several African countries south of the Sahara.
- The other subspecies, the southern white is, by contrast, the most numerous subspecies of rhino, and is found primarily in South Africa.
- Scientists created a test-tube embryo by fertilising the egg of a southern white female with the frozen sperm of a northern white male.
- The embryos have been preserved in liquid nitrogen, and will be transferred to a southern white surrogate.
- Since the gestation period for a rhino could be 18 months, the first northern white calf is expected to arrive in the world in 2022.
- The ultimate goal, scientists say, is to create a herd of perhaps five northern white rhinos that could be returned to the wild.

Indian Rhinoceros:

- The Indian rhinoceros, also called the greater one-horned rhinoceros and great Indian rhinoceros, is a rhinoceros species native to the Indian subcontinent.
- It is listed as Vulnerable on the IUCN Red List.
- **They can be found in:**
  1. Kaziranga National Park
  2. Jaldapara National Park
  3. Pobitora Wildlife Sanctuary
  4. Orang National Park
  5. Gorumara Dudhwa National Park
  6. Manas National Park
  7. Katarniaghat Wildlife Sanctuary

4. Locusts Attack in India

Why in News?

- Locust attacks emerging from the desert area in Pakistan have struck parts of Rajasthan and Gujarat, causing heavy damage to standing crop.

Highlights:

- Locusts are a group of short-horned grasshoppers that multiply in numbers as they migrate long distances in destructive swarms.

- Only four species of locusts are found in India: Desert locust (Schistocerca gregaria), Migratory locust (Locusta migratoria), Bombay Locust (Nomadacris succincta) and Tree locust (Anacridium sp.).

- The desert locust is regarded as the most important in India as well as internationally. The swarms feed on leaves, flowers, fruits, seeds, bark and growing points, and also destroy plants by their sheer weight as they descend on them in large numbers.

- India has a locust control and research scheme that is being implemented through the Locust Warning Organisation (LWO), established in 1939 and amalgamated in 1946 with the Directorate of Plant Protection Quarantine and Storage (PPQS) of the Ministry of Agriculture.

- The LWO's responsibility is monitoring and control of the locust situation in Scheduled Desert Areas, mainly in Rajasthan and Gujarat, and partly in Punjab and Haryana.

- Although no locust plague cycles have been observed after 1962, during 1978 and 1993, largescale attacks were reported.

- India is most at risk of a swarm invasion just before the onset of the monsoon. The swarms usually originate in the Arabian Peninsula and the Horn of Africa.

5. Iconic platypus

Why in News?

- Australia's devastating drought and other effects of climate change are pushing the iconic duck-billed platypus, a globally unique mammal, towards extinction.

Highlights:

- Platypuses were once considered widespread across the eastern Australian mainland and Tasmania, although not a lot is known about their distribution or abundance.

- Researchers examined the risks of extinction for this intriguing animal and have called for action to minimise the risk of the platypus vanishing due to habitat destruction, dams and weirs. The study examined the potentially devastating combination of threats to platypus populations, including water resource development, land clearing, climate change and increasingly severe periods of drought.

- Documented declines and local extinctions of the platypus show a species facing considerable risks, while the International Union for Conservation of Nature (IUCN) recently downgraded the platypus' conservation status to "Near Threatened".

- The threats include include dams that stop their movements, agriculture which can destroy their burrows, fishing gear and yabby traps which can drown them and invasive foxes which can kill them.

The Platypus:

- The platypus is the sole living representative of its family, and genus, though a number of related species appear in the fossil record.
- Like other monotremes it senses prey through electrolocation. It is one of the few species of venomous mammals, as the male platypus has a spur on the hind foot that delivers a venom capable of causing severe pain to humans.
- It is one of the five extant species of monotremes, the only mammals that lay eggs instead of giving birth to live young. Platypus sanctuaries: David Fleay Wildlife Park, Gold Coast, Queensland.
- Lone Pine Koala Sanctuary, Fig Tree Pocket, Brisbane, Queensland. Walkabout Creek Wildlife Centre, The Gap, Brisbane, Queensland.
- The Australian Platypus Park at Tarzali Lakes, Millaa Millaa, Queensland. Taronga Zoo, Sydney, New South Wales Sydney Wild Life, Sydney, New South Wales Australian Reptile Park, Somersby, New South Wales Healesville Sanctuary, near Melbourne, Victoria.

6. Global Resources usage Hits 100 Billion Tonnes

- According to the Circularity Gap Report 2020, the world is using up more than 100 billion tonnes of natural resources per year, while global recycling of raw materials has fallen.

Key Findings of the Report:

- The Global use of materials is projected to balloon to 170-184 billion tonnes by mid-century.
- The share of minerals, fossil fuels, metals and biomass feeding into the global economy that is reused declined in two years from an already paltry 9.1 per cent to 8.6 today.
- The resources fuelling the world economy increased more than eight per cent in just two years from 93 billion tonnes in 2015 to 100.6 billion in 2017.
- From 1970, the human population has doubled, the global economy has grown fourfold, and trade has expanded tenfold, a trajectory that is in the absence of widespread recycling, relentlessly pushes up the demand for energy and resources.

- It is the International Organization for Public-Private Cooperation.
- It engages the foremost political, business, cultural and other leaders of society to shape global, regional and industry agendas.
- Circularity Gap Report was published during the World Economic Forum in Davos.

Way Forward:

- To improve living standards -- especially in low-income countries -- while also protecting ecosystems that provide clear water, air and soil, the world must vastly boost the share of recycled natural resources.
- The Wealthy nations, consume 10 times more resources per person than in the developing world, and produce far more waste.
- Rich countries must take responsibility for the impact of their imports and exports. Much of what they consume comes from less developed nations, while much of their waste is exported. China, which recently banned most solid waste imports, forcing the United States, Britain and Japan in particular to scramble for other disposal solutions. It has become a leader among middle-income nations in industrial-scale recycling.
- It has pioneered eco-industrial parks where the waste of one business becomes the feedstock for another.

7. Biodegradable Plastics

Why in News?

- As people are searching for alternatives to plastics, many are trying out a new version known as biodegradable plastic. The question arises, whether it is as safe as presumed.

Highlights:

- Plastic, in the form of bottles, bags, packaging materials, furniture and more, has become an integral part of our present-day lives. However, there are rising problems due to over-use of plastic which has caused a worldwide alarm.
- Theoretically speaking, biodegradable means the material should break down into water, carbon dioxide and minerals. However, this is not the case with all plastics.
- Also, many of the plastics that are bio-degradable, only degrade at very specific temperatures and also need optimal levels of light, water and oxygen for the same.
- And even then, they leave behind residues which are toxic for the environment. Many of the plastics will not Biodegrade Naturally.

- Owing to the conditions required for their biodegradation, a lot of plastics will only get biodegraded at industrial facilities.
- Many Bio-based plastics are known to not be biodegradable. However, they can be recycled, albeit partially.
- They have known to have similar structure to that of fossil fuel-based plastics. Every bio-based plastic does not deliver the same amount of pure recycle streams.
- These streams are the amount of product that can be recycled to produce something new. Bio-based plastic and even biodegradable plastic while having their virtues, also come with their own set of flaws. As such, they cannot really be substitutes to plastic due to a lot of reasons.

8. 1t.org

Why in News?

- President of the United States has recently announced that the United States will join the 1 Trillion Trees initiative which was launched at the World Economic Forum Annual Meeting 2020.

About:

- 1t.org is a World Economic Forum (WEF) initiative, designed to support the Trillion Tree Community. It is being set up with the initial financial support of Marc and Lynne Benioff.
- 1t.org is a platform for leading governments, businesses, civil society and ecopreneurs committed to restoring and reforesting the planet. It will provide a global platform for any reforestation commitment, initiative or campaign, from the grassroots level to large, Multi-Country Efforts.

9. Ophichthus Kailashchandrai

Why in News?

- Recently, a new snake eel (Ophichthus Kailashchandrai) species has been discovered in the Bay of Bengal.

About Snake eel:

- It is named as Ophichthus kailashchandrai to honour the vast contributions of Dr Kailash Chandra (Director of Zoological Survey of India) to Indian animal taxonomy.
- It lives at a depth of around 50 metres in the sea.
- It is 420 mm to 462 mm in length and light brown in colour, with white fins.

- The outer surface of their bodies is slimy but they are not poisonous.
- Their teeth are moderately elongated, conical and sharp and thus they feed on Small Fish and Crabs.

10. Archaea

Why in News?

- Recently, scientists of National Centre for Microbial Resource — National Centre for Cell Science (NCMR-NCCS) in Pune have reported a new archaeon, which is discovered in Sambhar Salt Lake in Rajasthan.

About Archaea (Singular Archaeon):

- It is a primitive group of microorganisms that thrive in extreme habitats such as hot springs, cold deserts and hyper saline lakes.
- It is a slow-growing organism, which is present in the human gut, and have a potential Relationship with Human Health. They are known for producing antimicrobial molecules, and for anti-oxidant activity with applications in eco-friendly waste-water treatment.
- The Researchers found that the organism has potential gene clusters that helps maintain the Metabolism of the archaea to survive in Extreme Harsh Conditions.

11. India phases out Ozone Depleting HCFC-141b

Why in News?

- Issue India has successfully completed the phasing out of Hydro chloro fluoro carbon (HCFC)-141b, used by foam manufacturing companies and one of the most potent ozone-depleting chemicals.

Highlights:

- Ozone occurs naturally in small amounts in the upper atmosphere of the earth. It protects life on earth from the sun's ultraviolet (UV) radiation. But its presence on ground creates many health problems.
- HCFC-141b is not produced in India and all the domestic requirements are met through imports. With the notification prohibiting the import of HCFC-141b, India has completely phased out the important ozone depleting chemical.
- Simultaneously, the use of HCFC-141b by foam manufacturing industry has also been closed as on January 1 under the Ozone Depleting Substances (Regulation and Control) Amendment Rules, 2014.

- The phase out of HCFC-141b from the country has twin environmental benefits, one is assisting the healing of the stratospheric ozone layer and the second is climate change mitigation due to transition of foam manufacturing enterprises at large scale to low global warming potential alternative technologies.
- Most of the companies that are manufacturing foam in India are micro, small and medium enterprises (MSMEs) and belong to informal sector.

HCFC-141b:

- Hydrochlorofluorocarbon-141b, or 1,1-dichloro-1-fluoroethane (HCFC141b), has been developed as a replacement for fully halogenated chlorofluorocarbons because its residence time in the atmosphere is shorter, and its ozone depleting potential is lower than that of presently used chlorofluorocarbons.
- HCFC-141b is used in the production of rigid polyurethane and polyisocyanurate or phenolic insulation foams for residential and commercial buildings. It may also be used as a solvent in electronic and other precision Cleaning Applications.
- HCFCs are ozone-depleting substances and are to be phased out under the Montreal Protocol by 2020 in the developed world and 2040 elsewhere.

12. Tibetan Glaciers Reveal Ancient Virus

Why in News?

- A glacier on the north western Tibetan Plateau of China has hosted an ensemble of frozen viruses, many of them unknown to modern science. Scientists excavated the site, revealing the existence of 28 never-before-seen virus groups.

Highlights:

- Investigating these mysterious viruses could help scientists in understanding which viruses thrived in different climates and environments over time.
- Studying Ancient Glacial Microbes can be challenging. That's because it's extremely easy to contaminate ice core samples with modern-day bacteria.
- The team drilled 50 meters (164 feet) down into the glacier to obtain two ice cores, which then underwent a three-step decontamination protocol.
- After that, the researchers used microbiology techniques to identify microbes in the samples. The microbes differed significantly across the two ice cores, presumably representing the very different climate conditions at the time of deposition.

- Climate change now threatens both our ability to exhaustively catalogue those tiny lifeforms as well as our ability to stay safe from dangerous ones.
- In a worst-case scenario, this ice melt [from climate change] could release pathogens into the environment. If this happens, it's best to know as much about these viruses as possible.
- Research into ancient viruses provides a first window into viral genomes and their ecology from glacier ice.

13. Indian Ocean Dipole

Why in News?

- Australia is facing raging bushfires across its vast grasslands, which it terms to be an effect of severe drought caused due to alterations in Indian Ocean Dipole (IOD). In this context it is necessary to understand the phenomenon of IOD.

Highlights:

- The Indian Ocean Dipole (IOD), also known as the Indian Niño, is an irregular oscillation of sea surface temperatures in which the western Indian Ocean becomes alternately warmer (positive phase) and then colder (negative phase) than the eastern part of the ocean.
- The IOD involves an aperiodic oscillation of sea-surface temperatures (SST), between "positive", "neutral" and "negative" phases.
- A positive phase sees greater-than-average sea-surface temperatures and greater precipitation in the western Indian Ocean region, with a corresponding cooling of waters in the eastern Indian Ocean, which tends to cause droughts in adjacent land areas of Indonesia and Australia.
- The negative phase of the IOD brings about the opposite conditions, with warmer water and greater precipitation in the eastern Indian Ocean, and cooler and drier conditions in the west. The IOD also affects the strength of monsoons over the Indian subcontinent.
- The research shows that when the IOD is in its negative phase, with cool western Indian Ocean water and warm water off northwest Australia (Timor Sea), winds are generated that pick up moisture from the ocean and then sweep down towards southern Australia to deliver higher rainfall. In the IOD-positive phase, the pattern of ocean temperatures is reversed, weakening the winds and reducing the amount of moisture picked up and transported across Australia.
- The consequence is that rainfall in the south-east is well below average during periods of a positive IOD.

14. Corals restoration in Gulf of Kachchh

Why in News?

- The Zoological Survey of India (ZSI), with help from Gujarat's forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral accretion technology in the Gulf of Kachchh.

Highlights:

- Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.

- When a positively charged anode and negatively charged cathode are placed on the sea floor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).

- This results in calcium carbonate formation. Coral larvae adhere to the $CaCO_3$ and grow quickly. The fragments of broken corals are tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.

- The location for installing the biorock had been chosen keeping in mind the high tidal amplitude in the Gulf of Kachchh. The low tide depth where the biorock has been installed is four metres, and at high tide it is about Eight Metres.

- India has four coral reef areas, Andaman and Nicobar Islands, Lakshadweep, Gulf of Mannar and the Gulf of Kachchh.

- The ongoing initiative of coral restoration using biorock technology could potentially help to sustain the earlier successes. The technology helps corals, including the highly sensitive branching corals, to counter the threats posed by global warming.

Degradation of Corals:

- **Water Pollution:**
  - ✓ Water pollution is perhaps the most obvious cause of coral reef destruction. Reefs are harmed when oil, fertilizer, and human or animal waste are dumped in the area. These elements can end up changing the chemical makeup of the water, but the waste can also block life-giving sunlight to the reef.

- **Coral Bleaching:**
  - ✓ Reef bleaching occurs when extreme water conditions cause corals to expel the internal microorganisms that give them their vibrant colours. Bleaching events are attributed to

a number of factors, including pollution and extreme low tide, but the most common (and widespread) is the change in water temperature due to Global Warming.

- **Sedimentation:**
  - ✓ When sediment enters the ocean, it can smother coral reefs, depriving them of sunlight and nutrients. Also, fish are unable to feed and coral polyps are unable to grow, leaving the area inhospitable to reef life.

15. Biorock Technique for Coral Restoration

Why in News?

- The Zoological Survey of India (ZSI), with help from Gujarat's forest department, is attempting for the first time a process to restore coral reefs using biorock or mineral Accretion Technology.

Biorock Technique:

- Biorock is the name given to the substance formed by electro accumulation of minerals dissolved in seawater on steel structures that are lowered onto the sea bed and are connected to a power source, in this case solar panels that float on the surface.
- The technology works by passing a small amount of electrical current through electrodes in the water.
- When a positively charged anode and negatively charged cathode are placed on the sea floor, with an electric current flowing between them, calcium ions combine with carbonate ions and adhere to the structure (cathode).
- This results in calcium carbonate formation. Coral larvae adhere to the $CaCO_3$ and grow quickly.
- Fragments of broken corals are also tied to the biorock structure, where they are able to grow at least four to six times faster than their actual growth as they need not spend their energy in building their own calcium carbonate skeletons.

Significance of the Move:

- The technology helps corals, including the highly sensitive branching corals, to counter the threats posed by Global Warming.
- In 2015, the same group of ZSI scientists had successfully restored branching coral species (staghorn corals) belonging to the family Acroporidae (Acropora formosa, Acropora humilis, Montipora digitata) that had gone extinct about 10,000 years ago to the Gulf of Kachchh.

Coral Bleaching:

- The Stunning Colours in Corals come from a marine algae called zooxanthellae, which live inside their Tissues.

- This algae provides the corals with an easy food supply thanks to photosynthesis, which gives the corals energy, allowing them to grow and Reproduce.

- When corals get stressed, from things such as heat or pollution, they react by expelling this algae, leaving a ghostly, transparent skeleton behind.

- This is known as 'coral bleaching'. Some corals can feed themselves, but without the zooxanthellae most corals starve.

16. Operation Vanilla

Why in News?

- Indian navy will perform Humanitarian Assistance and Disaster Relief (HADR) operations in Madagascar under 'Operation Vanilla'.

About Operation Vanilla:

- The Operation has been launched to assist the **population of Madagascar** that was affected by **Cyclone Diane**.

- The **Indian Navy ship Airavat** has been deployed in the relief mission. The operation will provide succor to the flood affected population.

- The ship will also set up a medical camp and offer water, food and other essential relief Materials.

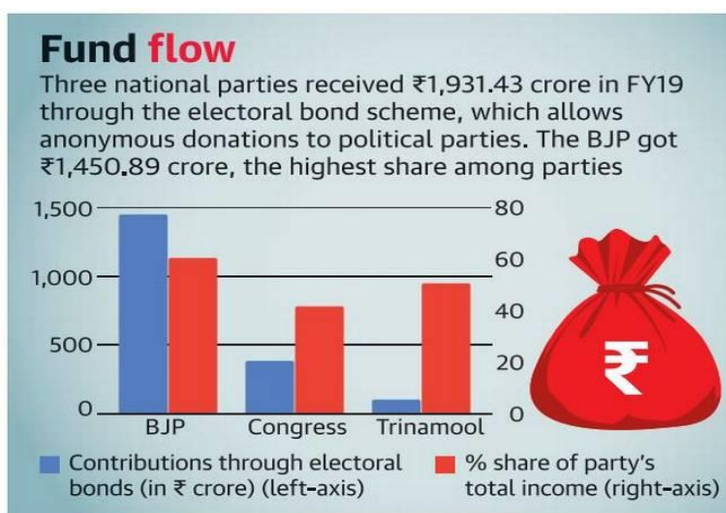# 1. Supreme Court refuses to Stay Poll Bond Scheme

Why in News?

- The Supreme Court recently refused to order an interim stay on the Electoral Bond Scheme.

About Electoral bonds:

- Electoral bonds will allow donors to pay political parties using banks as an intermediary.

- Although called a bond, the banking instrument resembling promissory notes will not carry any interest.

- The electoral bond, which will be a bearer instrument, will not carry the name of the payee and can be bought for any value, in multiples of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh or Rs 1 crore. As per provisions of the Scheme, electoral bonds may be purchased by a citizen of India, or entities incorporated or established in India.

- A person being an individual can buy electoral bonds, either singly or jointly with other individuals. Only the registered Political Parties which have secured **not less than one per cent** of the votes polled in the last Lok Sabha elections or the State Legislative Assembly are eligible to receive the Electoral Bonds.

- The electoral bonds are aimed at rooting out the current system of largely anonymous cash donations made to political parties which lead to the generation of black money in the Economy.

Do Private Companies are Eligible for Electoral Bonds?

- Prior to 2017, as per Section 182 of the Companies Act, 2013, a company can donate only up to 7.5% of its average profit of the last three years, and must disclose this amount and the beneficiary political party.

- Now, through the electoral bonds, there is no limit to the amount companies can donate, and the requirement for such firms to have existed for the last three years on a profit-making basis has also been deleted.

Fund flow

Three national parties received ₹1,931.43 crore in FY19 through the electoral bond scheme, which allows anonymous donations to political parties. The BJP got ₹1,450.89 crore, the highest share among parties

■ Contributions through electoral bonds (in ₹ crore) (left-axis)
■ % share of party's total income (right-axis)

SOURCE: ASSOCIATION FOR DEMOCRATIC REFORMS

Whether foreign companies are eligible for Electoral Bonds?

- The amended Companies Act now allows any foreign company registered in India to make contributions through bonds to political parties, subject to legitimate doubts about who or where its real owners are, or what its source of funding is.

What are the Concerns?

- The Election Commission (EC) and Reserve Bank of India (RBI) saying that the electoral bonds as proposed would have serious impact on the transparency aspect of funding of political parties, with the possibility of shell companies being created only for making donations and warned it could increase the use of black money.

- Coupled with the removal of cap (7.5%) on Foreign Funding, electoral bonds invite foreign corporate powers to impact Indian politics.

- Companies no longer need to declare the names of the parties to which they have donated so shareholders won't know where their money has gone.

- With electoral bonds there can be a legal channel for companies to round-trip their tax haven cash to a political party.

- If this could be arranged, then a businessman could lobby for a change in policy, and legally funnel a part of the profits accruing from this policy change to the politician or party that brought it about. Observers had expressed an apprehension, at the introduction of the scheme, that it had the potential of choking the funding for all opposition parties, and may give a huge undue advantage to the ruling party.

2. The Right to Protest in a Free Society

Context:

- Public protests are the hallmark of a free, democratic society, whose logic demands that the voice of the people be heard by those in power.

Is Right to Protest a Fundamental Right?

- The right to protest, to publicly question and force the government to answer, is a fundamental political right of the people that flows directly from a democratic reading of **Article 19.**

- The courts have continuously reiterated that the right to protest is a fundamental right.

- One may examine and find that the word 'protest' is missing in the Indian Constitution. But Article 19 has mentioned it implicitly.

- For example, the right to free speech and expression may be taken to mean that everyone has a right to express their personal opinion on, say, a film, or on the condition of the city they inhabit.

- The right to associate to mean the right to form self-regulating clubs, professional associations or societies. The right of peaceful assembly to mean the right to have a picnic in a park or to participate in Religious Festivals.

Right to Protest – A Political Freedom:

- The right to free speech and expression transforms into the right to freely express opinion on the conduct of the government.

- The right to association becomes the right to associate for political purposes — for instance, to collectively challenge government decisions.

- This is the basis of our multiparty system where Opposition parties are valuable adversaries, not enemies, and compete healthily for Political Power.

- Finally, the right to peaceably assemble allows political parties and citizenship bodies such as university-based student groups to question and object to acts of the government by demonstrations, agitations and public meetings, to launch sustained protest movements.

- In short, each of these rights has two interpretations. On the first, these are exercised largely by people for private purposes, free from government interference, in a classically liberal, non-political public space. On the second, rights are strongly associational, exercised to influence or gain power, and are therefore fundamentally political rights basic to a democratic society.

Why Right to Protest is Essential?

- This cluster of inter-related political rights (expression, association, assembly, petition and protest) is meant to ensure that even when the government works in people's interests they act as watchdogs and constantly monitor its acts.

- Even such governments can falter and so that, through consultation, meetings and discussion, to recognize and rectify its Mistakes.

- Historically few protests have brought many changes in the constitution. Potti Sreeramulu starving himself to death in order to create a new Telugu-speaking state of Andhra and the Chipko movement to prevent the then U.P. government from awarding contracts to commercial loggers are few examples. Such movements are particularly important for those outside the mainstream, or those not educated formally. Meetings around a table rarely involve as many people as street protests do.

3. Multiple State Capitals & Governance

Context:

- The Andhra Pradesh Legislative Assembly has passed the **AP Decentralisation and Inclusive Development of All Regions Bill, 2020** that intended to give shape to state government's plan of having three capitals — executive capital in Visakhapatnam, legislative in Amaravati and judicial in Kurnool.

AP Decentralisation and Inclusive Development of All Regions Bill, 2020:

- The proposal for **Three Capital Cities** is said to be aimed at "decentralised and inclusive development of all regions of the state".
- The cabinet also approved repealing of the Capital Region Development Authority Act and established the Amaravati Metropolitan Development Authority.
- South Africa has been taken as an example, as it has three capital cities – Bloemfontein, Pretoria and Cape Town – for a decentralised development.

Advantages of having Three Capital Cities:

- It restores Asymmetric Federalism - accommodates diversity not only between states but also within states. Three new large cities would boost the growth of the state, having multiple capitals spreads the economic growth in diverse channels by building multiple growth poles.
- This shall reduce the migration of the people towards one large capital city, instead it may provide three different destinations, making it a viable and sustainable urbanization.

Disadvantages of having Three Capital Cities:

- Involves huge **Financial Cost**. (The World Bank and the Asian Infrastructure Investment Bank (AIIB) pulled out of the project to fund Amaravati's development is a lesson to learn from.) The **District Level Imbalance** would still exist. (Amaravati in the south coastal AP, Visakhapatnam in north coastal Andhra and Kurnool in Rayalaseema region.)
- It involves issues like **land Acquisition**, which is already a problem in the newly developed capital of Amaravati. May make people run from one region to another region for their works. A single large capital may attract more investors than three small capital cities.

Having Judiciary away may not be a big problem. But, can legislature and executive Operate Separately?

- Many Indian states have separate Judicial capitals, like Arunachal Pradesh, Chhattisgarh, Goa, Gujarat, Madya Pradesh, Mizoram, Nagaland, Rajasthan and Uttar Pradesh.

- Maharashtra has its winter session in Nagpur, which doesn't have any legal status as a capital; and Himachal Pradesh has its winter session in Dharamshala.
- These doesn't change the fact that the executive and legislature are together in the same place.
- Because, India has Parliamentary form of government, in which the ministers perform the functions of both the executive and the legislature.
- Making separate capitals would make their presence in both the capitals nearly impossible.
- However, given the advances in communications technology it is unlikely that old arguments of the practicality in locating everyone in the same place will be valid.

Way Forward:

- The states can opt for multiple Judiciary benches for improving their efficiency, which needs the nod from the Supreme Court. Decentralization doesn't necessarily involve creation of separate capitals. Boosting the local level governance shall also aid in improving the decentralization. The states shall concentrate on improving the physical and social infrastructure in the Backward Regions.

4. "Democracy Index" of the Economist Intelligence Unit

Why in News?

- The latest edition of the "Democracy Index" was recently released by **The Economist Intelligence Unit** — the research and analysis division of The Economist Group, which is the sister company to The Economist newspaper.

About Democracy Index:

- The report records how global democracy fared, analysing 165 independent states and two territories.
- This Index is based on **Five Categories:**
  1. Electoral Process And Pluralism
  2. Civil Liberties
  3. The Functioning Of Government
  4. Political Participation
  5. Political Culture.
- Based on their scores on 60 indicators within these categories, each country is then itself classified as one of four types of regime: **Full Democracy; Flawed Democracy; Hybrid Regime; and Authoritarian Regime.**

Key Findings of the Report:

- India drops 10 ranks to 51st position in the Democracy Index in 2019.
- India was graded in electoral process and pluralism (8.67), government functioning (6.79), political participation (6.67), political culture (5.63) and civil liberties (6.76).
- India's overall score fell from 7.23 to 6.9, on a scale of 0-10, within a year (2018-2019) — the country's lowest since 2006.
- In the Asia and Australasia region, India ranks eighth, behind Taiwan and Timor-Leste.
- The report talks about the repeal of both Article 370 and Article 35A, deployment of large number of troops in J&K and placing local leaders under house arrest by the Government.
- The survey attributes the primary cause of "the democratic regression" to "an erosion of civil liberties in the country.
- The average global score also recorded its worst value ever, down from 5.48 in 2018 to 5.44, driven by a sharp regression in Latin America and Sub-Saharan Africa, a lesser one in the Middle East and North Africa (MENA) region, and by stagnation in the remaining regions that were covered.

Categorisation of Democracy:

- The Index also categorises India under **"Flawed Democracies",** countries that hold free and fair elections and where basic civil liberties are respected, but have significant weaknesses in aspects of democracy, such as problems in governance, an underdeveloped political culture and low levels of political participation.
- According to the report, there are only 22 "full democracies" as compared to 54 "authoritarian regimes" and as many "flawed democracies," that include the U.S.

5. Examining Sub Categorization of Other Backward Classes (OBCs)

Why in News?

- Cabinet has approved the Extension of term of the commission constituted to examine the issue of Sub-categorization within other Backward Classes.

About the News:

- **Article 14** of the Constitution guarantees **equality before the law** which means un-equals cannot be treated equally.
- Measures are required to be taken for the upliftment of un-equals to bring them on par with the advanced classes.

- In view of this, the **National Commission for Backward Classes (NCBC)** proposed the **sub-categorization of Other Backward Classes (OBCs)** back in 2015.
- In exercise of the powers conferred by **Article 340** of the Constitution, the President appointed a commission to examine the issue of sub-categorization of OBCs, to ensure social justice in an efficient manner by prioritizing the Extremely Backward Classes (EBCs).

What does Article 340 says?

- The President may by order appoint a Commission consisting of such persons as he thinks fit to investigate the conditions of socially and educationally backward classes within the territory of India.

Objectives of the Commission:

- To examine the extent of inequitable distribution of benefits of reservation among the castes or communities included in the broad category of Other Backward Classes with reference to such classes included in the Central List. To work out the mechanism, criteria, norms and parameters in a scientific approach for sub-categorization within such Other Backward Classes. To take up the exercise of identifying the respective castes or communities or sub-castes or synonyms in the Central List of Other Backward Classes and classifying them into their respective sub-categories.

Why it is Needed?

- At present, there is no sub-categorization and 27% reservation is a Monolithic Entity.
- Sub categorization of the OBCs will ensure that the more backward among the OBC communities can also access the benefits of reservation for Educational Institutions and Government Jobs.

What are its Significances?

- The Government's efforts to achieve greater social justice and inclusion for all, and specifically members of the Other Backward Classes.
- The Union Cabinet's decision to set up a commission to examine the issue of sub-categorization of the Other Backward Classes speaks to the long years of failure in effectively preventing large sections of the creamy layer from taking advantage of the quota system to the detriment of the poorer sections among their own caste groups.
- In effect, the Union government is now seeking to ensure a more equitable distribution of reservation benefits by further differentiating caste groups coming under backward classes on the basis of their levels of social and Economic Backwardness.

6. India Slips Two Places in "Global Corruption Perception Index"

Why in News?

- Transparency International - a German based NGO has released its 2019 edition of **"Global Corruption Perception Index"**.

About the Index:

- The CPI draws on surveys and expert assessments to rank countries by their perceived levels of public sector corruption.
- The index measures public sector corruption in 180 countries and territories.
- It uses a scale of 0 to 100, **where 0 is highly corrupt and 100 is very clean.**

Status check

The Corruption Perceptions Index uses a scale of zero (highly corrupt) to 100 (very clean). The global average for 2019 is 43

Country	Score in 2019	Rank in 2019	Change in rank from '18
Denmark	87	1	0
New Zealand	87	1	1
U.K.	77	12	-1
U.S.	69	23	-1
India	41	80	-2
China	41	80	7
Brazil	35	106	-1
Pakistan	32	120	-3
Russia	28	137	1
Bangladesh	26	146	3
Somalia	9	180	0

Key findings of the Report:

1. **Global Level:**
   - ✓ The top ranked countries are New Zealand and Denmark, with scores of 87 each, followed by Finland (86), Singapore (85), Sweden (85) and Switzerland (85).
   - ✓ The countries ranked at the bottom of the list are Somalia, South Sudan and Syria with scores of 9, 12 and 13.

2. **Regional Level:**
   - ✓ In the Asia Pacific region, the average score is 45, after many consecutive years of an average score of 44, which "illustrates general stagnation" across the region.
   - ✓ Despite the presence of high performers like New Zealand (87), Singapore (85), Australia (77), Hong Kong (76) and Japan (73), the Asia Pacific region hasn't witnessed substantial progress in anti-corruption efforts or results.
   - ✓ Low performers like Afghanistan (16), North Korea (17) and Cambodia (20) continue to Highlight serious challenges in the region.

3. **Indian Scenario:**
   - ✓ India slips two places on Global corruption perception index by ranking 80th in 2019. India was ranked 78th in 2018. Its score of 41 out of 100 remains unchanged.
   - ✓ The report questions the "unfair and opaque political financing" prevailing in our country.

- The report has observed that in democracies like India, unfair and opaque political financing, undue influence in decision-making and lobbying by powerful corporate interest groups, has resulted in stagnation or decline in the control of corruption.
- The report reveals that corruption is more pervasive in countries where big money can flow freely into electoral campaigns and where governments listen only to the voices of wealthy or well-connected individuals.
- Many countries see economic openness as a way forward, however, governments across the region, continue to restrict participation in public affairs, silence dissenting voices and keep decision-making out of public scrutiny.

Way Forward:

- To make real progress against corruption and strengthen democracy around the world, Transparency International calls on all Governments to:
    - **strengthen the Institutions Responsible** for maintaining checks and balances over political power, and ensure their ability to operate without intimidation;
    - **close the Implementation gap** between anti-corruption legislation, practice and enforcement;
    - **support civil society Organisations** which enhance political engagement and public oversight over government spending, particularly at the local level;
    - **support a Free and Independent Media,** and ensure the safety of journalists and their ability to work without intimidation or harassment.

About Transparency International:

- Transparency International, an international non-governmental organization which is based in Berlin, Germany was founded in 1993.
- It is a non-profit purpose is to take action to combat corruption and prevent criminal activities arising from Corruption.
- Other report published by Transparency International is **Global Corruption Barometer**.

7. Bodoland Dispute

Why in News?

- A historic agreement between Government of India, Government of Assam and Bodo representatives to end the over 50-year old Bodo crisis was signed Recently.

About the Bodoland:

- Bodos are the single largest tribal community in Assam, making up over 5-6 per cent of the state's population. They have controlled large parts of Assam in the past.
- The four districts in Assam — Kokrajhar, Baksa, Udalguri and Chirang — that constitute the Bodo Territorial Area District (BTAD), are home to several Ethnic Groups.

What is the Dispute?

- The Bodos have had a long history of separatist demands, marked by armed struggle.
- In 1966-67, the demand for a separate state called Bodoland was raised under the banner of the Plains Tribals Council of Assam (PTCA), a political outfit.
- In 1987, the All Bodo Students Union (ABSU) renewed the demand. "Divide Assam fifty-fifty", was a call given by the ABSU. The unrest was a fall out of the Assam Movement (1979-85), whose culmination — the Assam Accord — addressed the demands of protection and safeguards for the "Assamese people", leading the Bodos to launch a movement to protect their Own Identity. Many riots and killings were happened regarding the dispute and more than lakhs of people were displaced.

Key Highlights of the Agreement:

- Increase the scope and powers of the Bodo Territorial Council (BTC) and to streamline its functioning.
- Set up a commission under Section 14 of the Sixth Schedule to the Constitution of India, to recommend the inclusion or exclusion of tribal population residing in villages adjoining Bodoland Territorial Area Districts (BTAD) areas.
- The Government of Assam will establish a Bodo-Kachari Welfare Council.
- The Assam government will also notify Bodo language as an associate official language in the state and will set up a separate directorate for Bodo medium schools.
- Promote and protect Bodo's social, cultural, linguistic and ethnic identities.
- Providing legislative protection for the land rights of Tribals.

- A Special Development Package Rs. 1500 crores over three years will be given by the Union Government to undertake specific projects for the development of Bodo areas.
- Rehabilitate members of National Democratic Front of Bodoland (NDFB) factions (With this agreement, over 1500 armed cadres will abjure violence and join the mainstream).

8. Central Adoption Resource Authority (CARA)

Why in News?

- CARA has begun a nationwide capacity building programme for social workers who help assess the suitability of the adoptive family and prepare a child for a New Home.

About CARA:

- Central Adoption Resource Authority (CARA) is a statutory body of Ministry of Women & Child Development, Government of India.
- It functions as the nodal body for adoption of Indian children and is mandated to monitor and regulate in-country and inter-country adoptions.
- CARA is designated as the Central Authority to deal with inter-country adoptions in accordance with the provisions of the Hague Convention on Inter-country Adoption, 1993, ratified by Government of India in 2003.
- CARA primarily deals with adoption of orphan, abandoned and surrendered children through its associated /recognised adoption agencies.

What does the Hague Convention says?

- The Hague Convention protects children and their families against the risks of illegal, irregular, premature or ill-prepared adoptions abroad.
- Safeguards in place to make sure that all inter country adoptions are in the best interests of the child and respects their human rights,
- A system in place of cooperation among countries to guarantee that these safeguards are respected, and to prevent the abduction of, sale of, or traffic in children.

What are the Eligibility Criteria for Adoptions?

- The eligibility criteria under Adoption Regulations, 2017, permit single women to adopt a child of any gender, while single men can adopt only boys.
- When a married couple seeks to adopt a child, it needs to give its consent for adoption and should be stable marriage for at least Two Years.
- Individuals in a live-in relationship can be able to adopt children from and within India.

What are the challenges faced in adopting a child?

- The Central Adoption Resource Authority (CARA) has recorded many instances of disruption over a period of five years between 2014-15 and 2018-19.
- "Disruption" refers to the circumstance that occurs when an adoption process is stopped after the child is placed in an adoptive home but before the adoption is finalized legally. The term "dissolution" describes an adoption that ends after legal finalization.
- It records six in 400 children being returned at an advanced stage of adoption. On an average there are 4,000 legal adoptions annually within and from India.
- There are problems in adjustment between their previous adopted child and the newly adopted one. The child is unable to forget the relationship it had developed with the earlier family with whom it had spent and is unable to erase those memories.
- For Hague adoptions (inter country adoptions), the authorities in both countries don't agree to go ahead with the adoption.
- For non-Hague adoptions, requirements vary from one country to another. The Hague Convention does not allow private adoptions in the child's home country.

Way Forward:

- Post-Adoption trauma therapy can be extremely helpful in allowing children to heal from their trauma with the aid of their supportive forever family.
- A child is getting adopted only on checking legal grounds. Proper background check of the family and psychological conditions of the parents is essential before a child is being Adopted.

9. Andhra Pradesh to Scrap Legislative Council

Why in News?

- The Andhra Pradesh (AP) assembly has passed a resolution to abolish the state's Legislative Council.

About Andhra Legislative Council:

- Since, the Andhra Pradesh government has passed a resolution to abolish the state legislative council, further it has to send the resolution to the Governor for his approval and then to the Parliament.
- Once the Parliament passes the law to give effect for the resolution, the state legislative council will be dissolved.

- Andhra Pradesh's Legislative Council was initially set up in 1958 but then abolished in 1985. It was then reconstituted in the year 2007.

States having State Legislative Councils:

- Besides Andhra Pradesh, the other states having Legislative Councils are Telangana, Uttar Pradesh, Bihar, Maharashtra and Karnataka.
- Legislative assemblies of Rajasthan, Assam and Odisha have passed resolutions for the formation of the Council

About State Legislative Council:

Basis for Formation:

- India has a bicameral system of legislature. Just as the Parliament has two Houses, the states can also have a Legislative Council (LC) in addition to the Legislative Assembly through Article 169 of the Constitution.

Abolition and Creation - Article 169:

- The Parliament can abolish a Legislative Council (where it already exists) or create it (where it does not exist) by a simple majority, if the legislative assembly of the concerned state, by a special majority, passes a resolution to that effect.
- Special Majority Implies:
  - ✓ A majority of the total membership of the assembly
  - ✓ A majority of not less than two-thirds of the members of the assembly present and voting.

Is Legislative council really beneficial?

1. **Arguments in Favour of the Formation of the Council:**
   - ✓ The Legislative Council also enables non-elected individuals to contribute to the legislative process.
   - ✓ An Upper House provides a forum for academicians and intellectuals, who are arguably not suited for the rough and tumble of electoral politics.
   - ✓ It provides a mechanism for a more sober and considered appraisal of legislation that a State may pass. A Legislative Council can help check hasty actions by the directly elected House.
   - ✓ Legislative Councils make the governments more accountable.
   - ✓ The members of Legislative Council through their experience can act as the friend, philosopher and guide of the Legislative Assembly.

2. Arguments Against

✓ The Legislative Council can delay legislation.

✓ It strains state finances and an unnecessary drain on the exchequer.

✓ The absence of Legislative council in every state itself suggests the lack of any real advantage, apart from the absence of a broad political consensus on the issue.

✓ Rather than fulfilling the lofty objective of getting intellectuals into the legislature, the forum is likely to be used to accommodate party functionaries who fail to get elected.

✓ Another issue is that graduates are no longer a rare breed; also, with dipping educational standards, a graduate degree is no guarantee of any real Intellectual Heft.

Way Forward:

- There has to be a national policy on having an Upper House in State legislatures to be framed by the Union government, so that a subsequent government doesn't abolish it. There has to be a uniformity and strong policy for its creation, revival and abolishment.

- It argued that the status of Legislative Councils cannot be of temporary in nature depending on the mood of the Government of the day nor can be abolished once created, only at the whims and fancy of a newly elected Government in the State.

- A national consensus must be evolved on the establishment of Legislative Councils.

- The provision in the law for Councils to have seats for graduates and teachers needs to be reviewed.

10. Article 131 - Special Powers of Supreme Court

Context:

- Recently, the LDF government in Kerala, became the first state government in the country, that moved the Supreme Court against the Citizenship Amendment Act (CAA). The Kerala government sought that the act be declared as violative of the Doctrine of Basic structure—principle of equality, freedom and secularism.

Citizenship Amendment Act (CAA), 2019:

- The CAA 2019 grants Indian citizenship to persecuted non-Muslim minorities viz. Hindus, Sikhs, Buddhists, Jains, Parsis and Christians who migrated to India from Afghanistan, Pakistan and Bangladesh on or before December 31, 2014.

Article-131: Original Jurisdiction

- The SC (as a federal court of India) possesses Original jurisdiction to decide the disputes arising between different units of the Indian Federation like:

- ✓ Centre and one or more states; or
- ✓ Centre & any state(s) on one side and one or more states on the other; or
- ✓ Two or more states.

The Applicability of the Article 131:

- The dispute must involve a question of law or fact on which the existence/extent of a legal right depends. Thus, the questions of political nature are excluded from it.
- Any suit brought before the Supreme Court by a private citizen against the Centre or a state cannot be entertained under this article.
- Also, the provisions mentioned in this Article are subject to other provisions of the Constitution. For example, in cases of water disputes between two or more states, the remedy to such conflicts is entertained under Article 262 of the Constitution and not under Article 131.

Part XI and the Seventh Schedule:

- Part XI (Articles 245-263) of the Indian Constitution consists of articles that describes the legislative, administrative, and financial relations between the Union and the States.
- **Article 246:** Defines the legislative subject matters on which the Parliament and the State Legislatures can make laws. These matters are enumerated in the 3 lists of Seventh Schedule.
- **Union List:**
  - ✓ Parliament has exclusive powers to make laws on the subjects mentioned in the Union List.
  - ✓ Parliament is also empowered to make laws for territories which presently do not form part of any state.
- **State List:**
  - ✓ State Legislature (in normal circumstances) has exclusive powers to make laws on subjects enumerated in the State List.
- **Concurrent List:**
  - ✓ Both Parliament & State Legislature can make laws on items described in the Concurrent List.
  - ✓ However, in case of any conflict, the Central law prevails.

Exceptions:

- Under 5 circumstances, the Parliament is empowered to make laws on State List subjects -
  - ✓ If a resolution is passed to that effect by the Rajya Sabha (Article 249),

- ✓ During National emergency,
- ✓ President's Rule,
- ✓ If requested by two or more States,
- ✓ Under obligation to implement an International Treaty.

Articles 256 and 365:

- **Article 256** of the Constitution states that the executive power of every State must ensure compliance with the laws made by the Parliament.
  - ✓ Kerala has said in its suit that, under CAA it would be compelled to comply with its provisions because of Article 256.
  - ✓ Kerala considers CAA to be arbitrary, unreasonable, irrational and violative of Fundamental Rights.
  - ✓ If it does not follow the same, the repercussions could be seen in the form of Article 365.
- **Article 365:** In case of failure to comply with, or to give effect to, directions given by the Union, the President is empowered to make a decision thinking that a situation has arisen in which the government of the State cannot be carried on in accordance with the provisions of this Constitution. Hence, the President's rule could be enacted.

Can Supreme Court test the validity of a law under Article 131?

- **Legislative Competence:** A law must be challenged in the Court if it is in excess of the legislative competence of the framing authority.
- **Violation of Rights:** The Court can check whether a particular law violates which kind of rights- whether Fundamental or Constitutional rights?
- **Violation of the Constitution:** The Court can test a law if it is ultra-vires the Constitution. In this regard, there are following Doctrines which have been evolved by the SC over a period of time:
- **Doctrine of Basic Structure:** The Doctrine of Basic Structure signifies the basic features of the Constitution, which cannot be changed/amended, as they form the foundation of the Constitution on which its core principles/existence stands.
- **Doctrine of Pith & Substance:** Pith means 'true nature' or 'essence of something' and Substance means 'the most important or essential part of something'.
- **Doctrine of Colorable Legislation:** It comes into play when a Legislature does not possess the power to make laws upon a particular subject but it indirectly makes law on it.

Related Cases:

- **West Bengal Government's Case**
  - ✓ In 2017, the SC proclaimed that the State government cannot ask for any remedy related to Fundamental rights.
  - ✓ The case was filed under Article 32 of the Constitution challenging the validity of the 'Aadhaar Act'.
  - ✓ The Court also held that, "Fundamental rights are available to individuals: citizens or non-citizens against the State (under Article 32 or Article 226) and not to the State entities."

- **Chhattisgarh Government's Case**
  - ✓ Chhattisgarh government also recently filed a suit in SC (under Article 131) against the National Investigation Agency (NIA) Act, 2008.
  - ✓ It claimed that 'Police' & 'Public Order' are the state subjects and States have the ultimate authority to make laws related to it.
  - ✓ NIA Act, 2008 takes away the state's power to investigate offences categorised as 'scheduled offences' under the Act, though they are within State's jurisdiction.

- **West Bengal's case : Rights in Mines in Coal-bearing Areas:**
  - ✓ A case was filed against the Central law (Coal Bearing Areas (Acquisition and Development) Act, 1957) under Article 131.
  - ✓ The State claimed that the Act did not apply to lands vested in or owned by the State, and even if it applied to such lands, the Act was beyond the legislative competence of the Parliament.
  - ✓ In 1962, the SC entertained the West Bengal's petition under Article 131 as the State had legal rights in this case, however, it also upheld the Central law.

Conflicting Judgments:

- There have been two conflicting judgments given by the Supreme Court on whether a State can file an original suit under Article 131 to challenge the constitutionality of a central law:
  - ✓ In the State of Madhya Pradesh vs Union of India, 2011 case, the issue dealing with electricity was raised and the Court held that States cannot challenge a central law under Article 131.
  - ✓ In the State of Jharkhand Vs State of Bihar, 2015 case, the SC took the opposite stance and referred the question of law to a larger Bench for final determination.

Way Forward:

- Politically motivated pleas must be abandoned and must not be entertained by the SC. Instead, determined efforts must be made to resolve them within the political arena.
- Representatives of states must speak up in the Parliament when the laws are being framed & passed rather than making hue and cry later.
- Federalism is a two-way street. Both the parties to it must respect the boundaries of one another that has been drawn by the Constitution.
- The States must restrain themselves while defying the implementation of Central laws, if done it might lead to the breakdown of constitutional machinery.
  - ✓ Hence, States are bound to implement the Central laws until and unless they are declared as void and unconstitutional by the Higher Courts of the country.

11. Draft Bill for Abortion

Why in News?

- Recently, the Union Cabinet has approved changes to the Medical Termination of Pregnancy (MTP) Act, 1971.

Present laws in Abortion process

- The **Medical Termination of Pregnancy (MTP) Act of 1971,** provides for termination of pregnancy only up to 20 weeks.
- If an unwanted pregnancy has proceeded beyond 20 weeks, women have to approach a medical board and Courts to seek permission for termination, which is extremely difficult and cumbersome process.
- In Section 3 (2) of the Act, 1971 a pregnancy may be terminated by a registered medical practitioner-
  - ✓ Where the length of the pregnancy does not exceed twelve weeks, or
  - ✓ Where the length of the pregnancy exceeds twelve weeks but does not exceed twenty weeks.
- In this case, the abortion will take place, if not less than two registered medical practitioners are of opinion, that the continuance of the pregnancy would involve a risk to the life of the pregnant woman (her physical or mental health); or there is a substantial risk that if the child were born, it would suffer from some physical or mental abnormalities to be Seriously Handicapped.

Issue in the MTP, 1971:

- The law does not accommodate non-medical concerns over the economic costs of raising a child, effects on career decisions, or any other personal considerations.
- The law says, for minors- written consent from guardian is required, and
- The unmarried women cannot cite contraceptive failure as a reason for abortion.

Provisions of the Abortion Bill:

- It requires opinion of one registered medical practitioner instead of two or more, for termination of pregnancy up to **20 weeks** of gestation time between conception and birth.
- It requires opinion of two registered medical practitioners for termination of pregnancy of **20 to 24 weeks.**
- It increases the upper gestation limit (for abortion) from 20 to 24 weeks for survivors of rape, victims of incest (human sexual activity between family members or close relatives) and other vulnerable women, Including Minor Girls.
- It seeks to relax the contraceptive-failure condition for unmarried women. Earlier "only married woman or her husband" were allowed to medically terminate the pregnancy, but the Bill proposes the same for "**any woman or her partner**".

Conclusion:

- This Bill will provide greater reproductive rights to women as abortion is considered an important aspect of the reproductive health of women, if passed.
- The unsafe abortions cause death and injuries which can be largely prevented by trained practitioners legally.

3.1 POLITY & GOVERNANCE SNIPPETS

1. Web Portal 'GATI'

Why in News?

- Union Minister for Road Transport & Highways launched web portal 'GATI'.

GATI:

- The portal has been created by NHAI taking inspiration from the PRAGATI Portal used by PMO. It can be accessed from the NHAI Website and contractors/concessionaires can raise any project related issues on the Portal.
- The issue will immediately come to the notice of every official of NHAI including top management, and immediate action will be taken by the concerned officer, duly updating on the Portal.

- The issues raised in the GATI will be daily monitored by a team of officers in NHAI and will be constantly reviewed by the senior officers of NHAI and the Ministry of Road Transport & Highways.

- This will bring transparency and speed up the decision making giving real GATI (pace) to highway construction.

2. No Fly List

Why in News?

- A renowned stand-up comedian was banned from taking his Flight by some of the Airlines Recently.

About:

- The government has issued rules for preventing disruptive behaviour by air travellers and laid down guidelines for a **no-fly list**.

- As per the rules, a complaint of unruly behaviour needs to be filed by the pilot-in-command, and this is to be probed by an internal committee to be set up by the airline.

- During the period of pendency of the inquiry, the rules empower the concerned airline to impose a ban on the passenger. The committee is to decide the matter within 30 days, and also specify the ban duration.

- The rules define three categories of unruly behaviour:

    1. **Level 1:** refers to behaviour that is verbally unruly, and calls for debarment up to three months;

    2. **Level 2:** indicates physical unruliness and can lead to the passenger being debarred from flying for up to six months;

    3. **Level 3:** indicates life-threatening behaviour for which the debarment would be for a Minimum of two years.

- Any aggrieved person, upon receipt of communication of a ban from the airline, may appeal within 60 days from the date of issue of the order, to an Appellate Committee constituted by the Ministry of Civil Aviation.
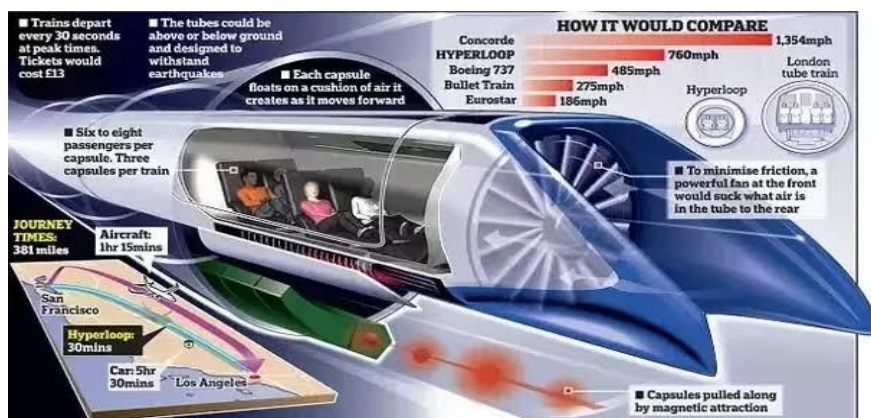
1. Pune-Mumbai Hyperloop Project

Why in News?

- The proposed Pune-Mumbai Hyperloop project, an ultra-modern transport system may be scrapped by the State Government.

About Hyperloop Project:

- It is a transportation system where a pod-like vehicle is propelled through a near-vacuum tube connecting cities at speeds matching that of an aircraft.

- The hyperloop concept is a brainchild of Tesla founder Elon Musk.
- This ultra-modern transport system will reduce the travelling time between the two cities to 25 minutes from 2.5-3 hours.
- The state has expressed reservations about the project that was still in its experimental stage, and had not been "implemented anywhere in the world".

How it is Operated?

- In hyperloop transportation, custom-designed capsules or pods are expected to zip smoothly through continuous steel tubes which are held at partial vacuum.
- The pod which sandwiches the passenger compartment between an air compressor upfront and a battery compartment in the rear is supported by air caster skis at the bottom.
- The skis float on a thin layer of air provided under high pressure, eliminating rolling resistance and allowing for movement of the pods at high speeds.

These capsules are expected to be driverless with estimated speeds of 1,000 km/h.

- Linear induction motors that are placed along the tube control the speed of the pod.
- Electronically-assisted acceleration and braking determine the speed of the Capsule.

What are the Challenges Faced by Hyperloop?

- **Constructing a Tube Hundreds of Kilometres long** would be an engineering marvel in of itself.

- Small scale experiments reveal the fundamentals of the idea are sound. Although, in the real world, there are tens of thousands of kilograms of **atmospheric pressure which threatens to crush any Vacuum Chamber.**
- There is also the problem with thermal expansion which threatens to buckle any large structure without proper thermal expansion capabilities.
- The Hyperloop would also be stupendously expensive.
- There are many unavoidable problems facing the Hyperloop that threaten the structural integrity, and every human life on board. The problems can be addressed, but at a great cost.

2. India wants Shifting of Hawaii Telescope

Why in News?

- India, a partner in the construction of one of the largest telescopes in the world, has said it wants the project to be moved out of the proposed site at Mauna Kea.

Highlights:

- The TMT or Thirty Metre Telescope, as it is called, is a joint venture (JV) involving five countries, but the $2 billion project has been derailed by protests for over a decade. The proposed site is considered sacred to indigenous Hawaiians.
- Protests at the site last year saw scientists unable to access other telescope facilities in Mauna Kea.
- The project has been delayed by nearly five years and should have begun operations by 2025.
- India has committed $200 million, which is about a tenth of the proposed cost.
- The telescope needs 492 precisely polished mirrors and India is to contribute 83 of them. The next best site to locate the telescope is the Observatorio del Roque de los Muchachos (ORM) on La Palma in the Canary Islands, Spain.
- Hanle, in Ladakh, was also in the running to host the TMT, but lost out to Mauna Kea, which is considered a superior site due to the imaging possibilities it offers, its stable weather, and also because it has the necessary infrastructure to manage telescopes, already being host to several telescopes.
- Canada, the United States, China and Japan are the other and more significant partners in terms of the monetary and infrastructural aspects of the TMT.

- The level of contribution determines the amount of viewing time, or slots, that the member-countries' scientists get on the machine. Thus India, in a given year, stands to get 10% of the available slots and any downtime could reduce the availability.

Thirty Meter Telescope:

- The Thirty Meter Telescope is a new class of extremely large telescopes that will allow us to see deeper into space and observe cosmic objects with unprecedented sensitivity.
- TMT will be three times as wide, with nine times more area, than the largest currently existing visible-light telescope in the world. This will provide unparalleled resolution with TMT images more than 12 times sharper than those from the Hubble Space Telescope.
- The TMT is designed for near-ultraviolet to mid-infrared (0.31 to 28 μm wavelengths) observations, featuring adaptive optics to assist in correcting image blur.
- The TMT will be at the highest altitude of all the proposed ELTs. The telescope has government-level support from several nations.
- TMT will observe the formation and development of the large-scale structures by looking at faint distant galaxies and the intergalactic medium, providing information on the physics of the early universe and the nature of dark matter that are inaccessible using any other techniques. TMT will be able to characterize and study the properties of exoplanets leading us closer to finding out if life exists beyond the Earth.

3. Corona Virus (Wuhan Virus)

Why in News?

- Chinese scientists have confirmed can spread between human beings.

Corona Virus:

- Corona viruses are large family of viruses, which cause illnesses to people and also circulate in animals including camels, cats and bats.
- They cause illness ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome.
- 2019-nCoV is a new strain that has not been previously identified in Humans.
- Much remains to be understood about the new coronavirus, which was first identified in China earlier this month.
- Not enough is known about 2019-nCoV to draw definitive conclusions about how it is transmitted, clinical features of disease, or the extent to which it has spread. The source also remains unknown.

Wuhan Virus:

- The first cases emerged in Wuhan in central China's Hubei province.
- On December 31 last year, authorities confirmed that a large number of patients with unexplained pneumonia were admitted in hospitals in the city.

Symptoms of Infection:

- According to the WHO, common signs include fever, cough, and shortness of breath. Serious infections can lead to pneumonia, kidney failure, and death.
- Although human-to-human transmission has now been confirmed, the WHO says animals are the outbreak's likely primary source. It is not known yet which animals are responsible.
- To prevent the spread of all respiratory infections, the WHO in general asks people to cover their mouths and noses when coughing or sneezing, and to frequently wash their hands. Direct contact with farm or wild animals should be avoided — similar outbreaks in the past, like the Severe Acute Respiratory Syndrome (SARS) emerged from markets where people were in contact with live animals.

Pandemic Concerns:

- People see a similarity with the SARS outbreak that infected over 8,000 people and killed around 775 in more than 35 countries worldwide in 2002-03.
- SARS too, was caused by a mystery coronavirus, and started in China.
- The source of the virus remained unknown for 15 years, until Chinese scientists in 2017 traced it back to a colony of horseshoe bats living in remote cave in Yunnan province.
- The virus was carried by civet cats which are sold in markets in China.
- Fears that SARS could reappear and memories of China misleading the rest of the world on the extent and seriousness of the outbreak have not gone away.

4. Regulating Artificial Intelligence

Context:

- Recently, Sundar Pichai, the Chief Executive Officer of Google, has backed regulations for artificial intelligence. With Artificial intelligence progressing at a rapid pace and, infiltrating every sector, its growth poses significant challenges for both companies and the bodies that regulate them.

What is Artificial Intelligence?

- AI is the science of building computers that can solve problems the way humans do.

- It enables high level cognitive processes like thinking, perceiving, learning, problem solving and decision making.
- The AI works on the back of data collection and aggregation, analytics and computer processing.
- AI presents opportunities to complement and supplement human intelligence and enrich the way people live and work.

What are the Benefits of AI?

- For the governments AI can be a tool for governance, development and efficient decision making.
- Self-driving Cars, digital assistants (Alexa by Amazon), facial recognition are the major areas where the AI is used.
- AI is also used in healthcare systems, agriculture, manufacturing sector and transport sector.
- In the education sector, AI can assess students and adapt to their needs, helping them work at their own pace in their learning.
- AI technology development and applications are evolving rapidly with major implications for economies and societies.

How can the AI Benefit India?

- NITI Aayog estimates that adopting AI means a 15% boost for the gross value added (GVA) for the economy by 2035.
- AI can increase access and affordability of Quality **Healthcare.**
- In **Agriculture,** it can contribute towards enhancing farmers' income, increase farm productivity and reduce wastage.
- It can also improve access and quality of **Education.**
- It can help build efficient infrastructure for the increasing urban population.
- Develop smarter and safer modes of transportation to address traffic and congestion problems.
- AI could create jobs in the country that would be higher than the number of jobs becoming redundant due to innovation in Technology.
- Increase efficiency and Enhance Governance across the Government.
- Helps in improving the ease of doing business, as well as making the lives of people simpler.
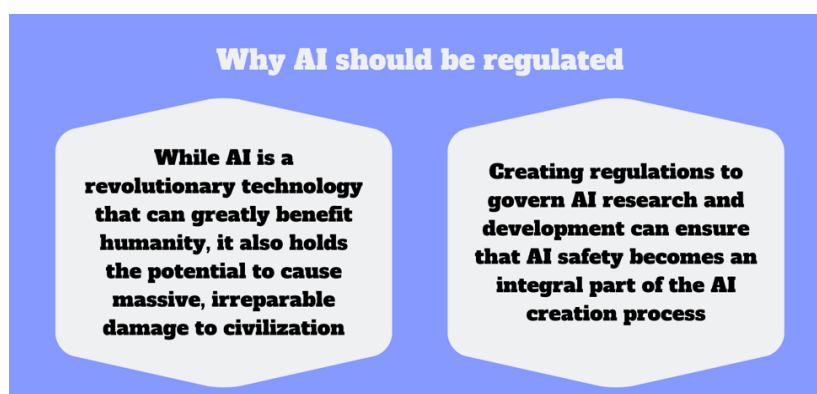
- 'Make in India' programme can be strengthened, and AI can help India in becoming a major manufacturing hub.

What are the Key challenges to adoption of AI in India?

- Lack of broad-based expertise in research and application of AI.

- Absence of access to intelligent data.

- High resource cost.

- Low awareness for Adoption of the Technology.

- Privacy and Security Issues.

- Shortage of skilled manpower.

- Indian technical universities are not doing enough to strengthen the AI ecosystem unlike their global counterparts.

Why do we need to Regulate AI?

- AI can be a double-edged sword - AI may be misused or behave in unpredicted and potentially harmful ways. Facial recognition – can be used for creating 'deepfakes', where a person in an existing image or video is replaced with someone else's likeness using artificial neural networks. Safety, transparency and accountability – AI systems need new laws to fix accountability on the acts done by them.

- Ethical governance – AI systems need to be governed using ethical standards right from their phase of development, this can avoid prejudice in the coding of AI which may make the AI biased. Privacy concerns – Data collected by the AI systems shall affect the privacy of the concerned.

Why AI should be regulated

While AI is a revolutionary technology that can greatly benefit humanity, it also holds the potential to cause massive, irreparable damage to civilization

Creating regulations to govern AI research and development can ensure that AI safety becomes an integral part of the AI creation process

What are the steps required to Regulate AI?

- Data regulation – It is the precondition for setting up AI regulation. On the basis of protecting individual data rights, we ought to regulate and encourage data sharing and application, to better guide AI development.

- Designer regulation – We also need to think about who makes the algorithms for AI and through which procedures they code it.

First movers in AI governance

Singapore, China and the UK have been pioneers globally in readying their governments for the application of AI, including deliberating national legislation

UK
Mar 2018

China
Jul 2017

Singapore
Jun 2018

Source: FT research
© FT

- The experts who code the AI poses a real threat, if their personal bias is given to the AI during its process of development.
- Machine optimization rules – It must be sufficiently regulated and overseen, to ensure they are not abused. Without proper optimization, AI may be used to influence even a presidential election.
- The concepts such as transparency and open source should be included when establishing AI regulations.

How Governments are Beginning to regulate AI?

- While United States' AI strategy focuses on self-regulation and rapid technological development, the others including China, the UK and the European Union have taken a government-led approach to defining AI principles.
- China has been at the forefront of creating an aggressive national push for AI development. For which, it is soliciting submissions from AI experts to develop its own governance principles.
- The UK is pioneering an ethical approach by the development of the Centre for Data Ethics and Innovation, and the Office for AI.
- Singapore's government proposed an AI governance framework in the lines of "human-centric" approach.
- India sees AI as a means to a very specific end: solving the country's pressing social challenges. NITI Aayog, framed a national strategy for artificial intelligence that emphasised an "AI for all" approach in pursuit of social good.
- In 2019, first international accord on AI development was signed by OECD countries such as the US, UK and Japan, and non-members like Brazil, Argentina and Romania
  1. These OECD principles are non-binding, are the first to be adopted by large number of countries.

2. These principles emphasise the development of AI that respects human rights and democratic values, ensuring those affected by an AI system.

- The Artificial Intelligence is growing at a faster pace in the fields of governance and development. It is foreseeable that it will play an even more important role in the future. While there is no need for us to panic over this imminent scenario, but we do have to exercise caution. Regulating AI and imposing the appropriate measures to achieve this goal should be set as the focal point of a government's policy agenda, to promote a sustainable AI-inclusive future.

5. NavIC in Mobiles

Why in News?

- Qualcomm Technologies has unveiled mobile chipsets that are capable of supporting Indian regional satellite navigation system - NavIC (Navigation in Indian Constellation).

Usage of New Chipsets:

- The release of new chipsets will accelerate the adoption of NavIC by Smartphone Original Equipment Manufacturers (OEMs). Users of such mobile chipsets will be able to use NavIC within the Indian region and in neighbouring countries.
- OEM is traditionally defined as a company whose goods are used as components in the products of another company, which then sells the finished item to users
- These enhancements will enable mobile, automotive and IoT platforms to better serve key industries and technology ecosystems in the region.
- This will help improve user experience for location-based applications especially in dense urban environments where geo-location accuracy tends to degrade.

Benefits:

- NavIC is set to become the backbone of a public vehicle tracking system in India since it offers flexibility to local law enforcement agencies to monitor vehicles unlike international systems like GPS (global positioning system).
- The government has made NavIC-based vehicle trackers mandatory for all commercial vehicles in the country in accordance with the Nirbhaya case verdict. So this will facilitate the installation of vehicle tracking systems and panic buttons in all commercial vehicles.
- In addition to NavIC, these chipsets will also support the widely used GNSS (Global Navigation Satellite System). GNSS includes USA's GPS, European Union's Galileo, Russia's GLONASS and China's BeiDou Navigation Satellite System for global coverage.

About Navigation in Indian Constellation (NavIC):

- It has been developed by the Indian Space Research Organization (ISRO). IRNSS is otherwise known as NavIC.
- IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area.
- IRNSS consists of eight satellites, three satellites in geostationary orbit and five satellites in geosynchronous orbit.
- IRNSS will provide two types of services, namely, Standard Positioning Service (SPS) which is provided to all the users and Restricted Service (RS), which is an encrypted service provided only to the authorised users.
- The IRNSS System is expected to provide a position accuracy of better than 20 m in the primary service area.

4.1 SCIENCE & TECHNOLOGY SNIPPETS

1. Yada Yada virus

Why in News?

- A Novel Virus detected in Australian mosquitoes has been provisionally named the Yada Yada virus (YYV), after the catchphrase made famous by the American sitcom Seinfeld.

Highlights:

- The Cambridge dictionary defines the phrase Yada Yada as an informal exclamation used to describe boring speech.
- The first known usage of the phrase was in 1967, and it is considered to be the alteration of an earlier word "yatata", which meant idle chatter. In the Hebrew language, the word "yada" means to "know".
- When the team of researchers extracted RNA from a large number of mosquitoes in Australia's Victoria state, they found a new alphavirus, which belonged to a group that includes other alphaviruses such as chikungunya virus and the astern equine encephalitis.
- The novel virus poses no threat to human beings, because it is a part of a group of viruses that only infect mosquitoes. Other viruses in the same group include the Tai forest alphavirus and the Agua Salud alphavirus.

2. Removing Heavy Metals from Water

Why in News?

- Researchers at IIT- Bombay have successfully removed heavy metals such as arsenic, chromium, cadmium and mercury from waste water with very High Efficiency.

Highlights:

- The carbon-based nanostructure that the team fabricated shows 80-90% adsorption efficiency for all the four heavy metals studied.

- No electricity is required for the nanostructure to remove heavy metals from water as it allows for gravity-driven purification of the water.

- The nanostructures can be recycled and reused multiple times. While there is an initial drop of about 8% after the first cycle, the efficiency remains constant at 75-85% in the subsequent cycles.

- The carbon nanostructure is able to adsorb the heavy metals in the wide range of pH conditions, pH 2 to 13. The nanostructure is obtained through a single-step process of chemical vapour deposition followed by removing the silica template.

- The reason it shows very high adsorption efficiency is its hydrophilic [water-loving nature] nature that allows for extensive and rapid interaction between the heavy metal-containing water and the carbon nanostructure.

- For the four heavy metals to get adsorbed on the nanostructure the water has to be in contact with the nanostructure for at least 32 seconds.

- Since the heavy metals chemically react and bind to the surface of the nanostructure, they do not leach back into the water. They can be recovered by treating the nanostructure with mild acid.

- The team tested the ability of the structure to adsorb heavy metals in industrial effluent over a range of pH conditions (pH 2-13).

- The industrial effluent was simulated by mixing 100 ppm of each metal.

3. Missile K-4

Context:

- Recently, India has successfully test-fired Missile K-4.

About Missile K-4:

- It is an Intermediate range Submarine Launched Ballistic Missile (SLBM). The series is named after former president and scientist A.P.J. Abdul Kalam.

- It is powered by solid rocket propellants and is considered to be highly accurate with a strike range of 3500 km.
- It will be the chief support of the Arihant class of indigenous Ballistic Missile Nuclear Submarines (SSBN). It will give India the standoff capability to launch nuclear weapons submerged in Indian waters.
- The test was carried out by the Defence Research and Development Organisation (DRDO) from a submerged pontoon (a flattish boat that relies on floats to remain buoyant) off the Visakhapatnam coast (Andhra Pradesh).
- India's Circular Error Probability (CEP) is much more sophisticated than Chinese missiles.
- It determines the accuracy of a missile. The lower the CEP, the more accurate the missile is.

4. Tiger Sharks

Context:

- Recently, the Indian Air Force (IAF) has inducted its first squadron of Sukhoi-30 MKI Aircraft carrying the BrahMos missiles at its Thanjavur base in Tamil Nadu.

About Tiger Sharks:

- It is the newly reinstated 222-squadron, also known as the Tiger Sharks, would serve as a lethal weapons platform capable of carrying both aerial and maritime roles in the Indian Ocean Region.
- Its base at Thanjavur, strategically located in the southern peninsula. It can dominate the seas and provide very close and integrated support to the Indian Navy. It can also provide support to the land forces.
- The Sukhoi-30 MKI aircraft integrated with the supersonic cruise missiles BrahMos is the strongest maritime combination that India has, in terms of weapon capability.

About BrahMos:

- It is a medium-range ramjet supersonic cruise missile that can be launched from submarines, ships, aircraft or land.
- It is a joint venture between the Russian Federation's NPO Mashinostroyeniya and India's Defence Research and Development Organisation (DRDO).
- The name BrahMos is a portmanteau formed from the names of two rivers, Brahmaputra and Moskva of Russia. It is the world's Fastest Anti-Ship cruise missile in Operation.

5. XENOBOT

Context:

- Recently, Scientists in the United States have created the world's first "living machines" — tiny robots built from the cells of the African clawed frog that can move around on their own.

About:

- They have named the millimetre-wide robots "xenobots" after the species of aquatic frog found across sub-Saharan Africa from Nigeria and Sudan to South Africa, Xenopus laevis.
- They can walk and swim, survive for weeks without food, and work together in groups.
- It can move toward a target, perhaps pick up a payload (like a medicine that needs to be carried to a specific place inside a patient) and heal themselves after being cut.
- Being non-toxic and having a lifespan of about a week, these could be a Novel Vehicle for Intelligent Drug Delivery.
- They could also be modified to digest toxic waste products, aiding clearing of arterial blockages, and even identify cancers that current medical technology is unable to do.
- The "novel living machines" were "neither a traditional robot nor a known species of animal", but "a new class of artifact: a living, Programmable Organism".

6. Vyom Mitra

Why in News?

- A "young woman" (half humanoid) named Vyom Mitra will ride to space in the first test flight of the human space mission, Gaganyaan.

About:

- The prototype of the humanoid, scheduled to ride into space ahead of the Indian crew as **part of 'Gaganyaan' programme**.
- 'Vyom' (Sky, heaven in Sanskrit) Mitra (friend) was designed at Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram. 'Vyom Mitra' will mimic all activities of 'Gaganauts' (Indian crew), including some simple experiments during the journey into space and back to terra firma while keeping in constant touch with ISRO's command & control facility.
- 'Gaganyaan' not only aims at India's maiden human flight to the space but also setting up a new space station for 'continuous space human presence'.

7. Anti-Satellite Missile (ASAT)

Why in News?

- India showcased its Anti-Satellite (ASAT) missile capability to the world as the ASAT weapon from Mission Shakthi was unveiled on Republic Day.

Highlights:

- A DRDO marching contingent displayed the ASAT missile along with a second equipment, the Air Defence Tactical Control Radar (ADTCR).
- Anti-satellite weapons (ASAT) are space weapons designed to incapacitate or destroy satellites for strategic military purposes. Several nations possess operational ASAT systems.
- Although no ASAT system has yet been utilised in warfare, a few nations have shot down their own satellites to demonstrate their ASAT capabilities in a show of force. Only the United States, Russia, China, and India have demonstrated this Capability Successfully.

Mission Shakti:

- India conducted Mission Shakti, an anti-satellite missile test, from the Dr. A P J Abdul Kalam Island launch complex. This was a technological mission carried out by DRDO.
- The satellite used in the mission was one of India's existing satellites operating in lower orbit. The significance of the test is that India has tested and successfully demonstrated its capability to interdict and intercept a satellite in outer space based on complete indigenous technology.
- The capability achieved through the Anti-Satellite missile test provides credible deterrence against threats to our growing space-based assets from long range missiles, and proliferation in the types and numbers of missiles.

Weaponization of Space:

- The principal international Treaty on space is the 1967 Outer Space Treaty. India is a signatory to this treaty, and ratified it in 1982.
- The Outer Space Treaty prohibits only weapons of mass destruction in outer space, not ordinary weapons.
- India supported UNGA resolution 69/32 on No First Placement of Weapons on Outer Space. Equally, India supports the substantive consideration of the issue of Prevention of an Arms Race in Outer Space (PAROS) in the Conference on Disarmament where it has been on the agenda since 1982.

8. Stem Cell Banking

Why in News?

- Stem cell banking or preservation is the extraction, processing and storage of stem cells, so that they may be used for treatment in the future, when required.

Stem Cells:

- Stem cells taken from umbilical cord blood are like those taken from bone marrow, capable of producing all blood cells: red cells, platelets and immune system cells.
- When used, stem cells are first concentrated, and then injected into the patient. Once transfused, they produce new cells of every kind.
- They're capable of producing all types of blood cells: red cells, platelets and immune System Cells. The stem cells can treat around 70 blood related disorders and genetic disorders including thalassemia, sickle cell anaemia, leukaemia, and immune related disorders.

Harvesting stem cells:

- The blood collected from the umbilical cord of the newborn is a rich source of stem cells. This blood is collected and sent to a cord blood bank, where the stem cells are separated, tested, processed, and preserved in liquid nitrogen. Technically, there is no expiry date and these stem cells can be preserved for a lifetime.

Drawbacks:

- The primary disadvantage of cord blood banking is that it isn't a cheap procedure and many families may not be able to afford it. The odds that any given child will need their cord blood are only about 1 in 217. So it may prove to be unnecessary expenditure. Current research suggests that cord blood can be stored for a maximum of 15 years. New technologies in this field may extend that timeframe in the future, but how that would affect current samples stored is unknown.

9. Spitzer Space Telescope

Why in News?

- Recently the NASA's Spitzer Mission, will come to an end will come to an end since it is low on fuel and has been drifting away from Earth for a few years now.

About the Spitzer Space Telescope (SST):

- It is an infrared space telescope. It is named in honour of astronomer Lyman Spitzer, who had promoted the concept of space telescopes in the 1940s.

- It is one of the elements of NASA's Great Observatories that include the Hubble Space Telescope and the Chandra X-Ray. Using different infrared wavelengths, Spitzer was able to see and reveal features of the universe including objects that were too cold to emit visible light.
- It could also see through large amounts of gas using infrared wavelengths to find objects that may otherwise have been invisible to human beings.

Highlights:

- Spitzer has logged over 106,000 hours of observation time in the past 15 years. It has illuminated some of the oldest galaxies in the universe, revealed a new ring around Saturn, and peered through shrouds of dust to study new-born stars and black holes.
- It includes the detection of seven Earth-size planets orbiting the star TRAPPIST-1, among Other Accomplishments.

10. Daniel K Inouye Solar Telescope (DKIST):

Why in News?

- Recently, the world's most powerful solar telescope has captured the most detailed image of sun.

About DKIST:

- The telescope's huge mirror can study objects as small as 35 km across from such a huge distance away.
- It is located in Haleakala, Maui. It shows the Sun's elusive corona at any time, regardless of positions of the sun, moon, and earth.
- It is funded by National Science Foundation and managed by the National Solar Observatory. It is a collaboration of numerous research institutions
- **Coronagraph**-an instrument that blocks out light emitted by the sun's actual surface so that the corona can be observed.
- The National Solar Observatory (NSO) is a United States public research institute to advance the knowledge of the physics of the Sun.

11. Yellow Rust-Wheat crop

Why in News?

- Recently, in Punjab and Haryana, yellow rust disease has been detected in the wheat crop.

About Yellow Rust (Stripe Rust):

- It is a fungal disease which attacks the leaves of wheat crop by forming yellow stripes.
- It affects their photosynthesis that causes shrivelling of grain size.
- It is a disease of cool weather in the northern hills and north-western plains zone.
- The favourable conditions for yellow rust is slight increase in the Temperature and Humid Climate.

1. India's Richest 1% hold four times more wealth than 70% of Poor: Oxfam

- The International Rights Group, Oxfam released its annual study 'Time to Care' before the start of the 50th Annual Meeting World Economic Forum (WEF) Annual Meeting.

Key Highlights of the Report:

1. **Global Level:**
   - ✓ The world's 2,153 billionaires have more wealth than the 4.6 billion people who make up 60 per cent of the planet's population.
   - ✓ The report flagged that global inequality is shockingly entrenched and vast and the number of billionaires has doubled in the last decade, despite their combined wealth having declined in the last year.
   - ✓ Although global inequality has declined over the past three decades, domestic income inequality has risen in many countries, particularly in advanced economies and reached historic highs in some. Concern about inequality underlies recent social unrest in almost every continent, although it may be sparked by different tipping points such as corruption, constitutional breaches, or the rise in prices for basic goods and services.

2. **Specific Info about India:**
   - ✓ India's richest 1 per cent hold more than four-times the wealth held by people who make up for the bottom 70 per cent of the country's population, while the total wealth of all Indian billionaires is more than the full-year budget.
   - ✓ Regarding India, Oxfam said the combined total wealth of 63 Indian billionaires is higher than the total Union Budget of India for the fiscal year 2018-19.
   - ✓ As per the report, it would take a female domestic worker 22,277 years to earn what a top CEO of a technology company makes in one year.

3. **Specific Info about Female Workers:**
   - ✓ The report had said that women and girls put in 3.26 billion hours of unpaid care work each and every day — a contribution to the Indian economy of at least Rs 19 lakh Crore a year, which is 20 times the entire education budget of India in 2019.
   - ✓ They spend billions of hours cooking, cleaning and caring for children and the elderly. Unpaid care work is the 'hidden engine' that keeps the wheels of our economies, businesses and societies moving.
   - ✓ But the report has noted that the governments are underfunding vital public services and infrastructure that could help reduce women and girls' workload.

Key Recommendations:

- The gap between rich and poor cannot be resolved without deliberate inequality-busting policies, and too few governments are committed to these. So, some of the recommendations to government given by the report are as:
  - ✓ All governments should set concrete, time-bound targets and action plans to reduce inequality as part of their commitments under Sustainable Development Goal (SDG-10: Reduce Inequalities). These plans should include action in the following three areas:
  - ✓ Universal free health care, education, pensions, child benefits and other public services that also work for women and girls should be delivered.
  - ✓ Freeing up of women's time should be a key objective of government spending. Investment must be made in public services including water, electricity and childcare that reduces the time needed to do this unpaid work.
  - ✓ End the under-taxation of rich individuals and corporations. Tax avoidance and evasion by corporates and the super-rich should be eliminated. Tax system should be redesigned to make it fair, with developing countries having an equal seat at the table.
  - ✓ The report has also noted that getting the richest one per cent to pay just 0.5 per cent extra tax on their wealth over the next 10 years would equal the investment needed to create 117 million jobs in sectors such as elderly and childcare, education and health.

Shortcomings of the Report:

- Oxfam determines global inequality on the basis of one's net wealth—assets minus liabilities and excludes income altogether, ignoring purchasing power parity, standard of living, pension funds and future claims of investments which are major parameters for measuring inequality.
- E.g.: A large section of Indian population invest in the education and career building of their children. That may be a liability today but is also an investment for tomorrow. Liabilities with income is not the same as liabilities without income.

6. INTERNATIONAL RELATIONS

1. Iran to Pull Out of NPT

Why in News?

- Iran has warned to withdraw from the Non-Proliferation Treaty (NPT) if the state parties to JCPOA refer the dispute over its atomic programme to the United Nation Security Council.

Background Info:

- Iran had signed the Joint Comprehensive Plan of Action (JCPoA) in 2015 with US, UK, France, Germany, Russia and China that had offered it access to global trade in return for accepting curbs to its atomic program.
- U.S.A has been complaining that the treaty was too lenient towards Iran and unilaterally pulled out the pact in 2018 and re-imposed sanctions on Iran.
- The recent assassination of Iranian general Qassem Soleimani by U.S has escalated tensions in the international arena.
- Later Iran claimed that it restarted its process of enriching uranium beyond the limits of JCPOA.
- Amid this rising tensions, Britain, France and Germany declared that Iran was violating the 2015 pact and have launched a dispute mechanism that could eventually see the matter referred back to the Security Council and the re-imposition of U.N. sanctions.

About Non-Proliferation Treaty (NPT):

- The NPT is an international treaty whose objective is to prevent the spread of nuclear weapons and weapons technology, to foster the peaceful uses of nuclear energy, and to further the goal of disarmament.
- The treaty was signed in 1968 and entered into force in 1970. Presently, it has 190 member states.
- It requires the member countries to give up any present or future plans to build nuclear weapons in return for access to peaceful uses of nuclear energy.
- It represents the only binding commitment in a multilateral treaty to the goal of disarmament by the nuclear-weapon States.
- Nuclear-weapon states under the NPT are defined as those that manufactured and exploded a nuclear weapon or other nuclear explosive devices before January 1, 1967.

India and NPT:

- India is one of the only five countries that either did not sign the NPT or signed but withdrew later, thus becoming part of a list that includes Pakistan, Israel, North Korea, and South Sudan.
- India always considered the NPT as discriminatory and had refused to sign it.

2. "Sagarmatha Sambaad"

Why in News?

- Nepal has invited the Prime Ministers of India and Pakistan along with several other heads of government for the Sagarmatha Sambaad.

About Sagarmatha Sambaad:

- Sagarmatha Sambaad is an initiative of the Government of Nepal which is a multi-stakeholder, permanent global dialogue forum.
- The dialogue aims to deliberate on the most prominent issues of global, regional and national significance.
- Headquarters - **Kathmandu, Nepal.**
- It is slated to be held biennially, with the first summit at Kathmandu in April, 2020 with the theme 'Climate Change, Mountains and the Future of Humanity'.

> - The Sambaad (dialogue) is named after the world's tallest mountain Sagarmatha (Mt. Everest) which is also a symbol of friendship and is meant to promote the notions of the common good and collective well-being of **Humanity.**

"Sagarmatha Sambaad" – An Informal SAARC Summit:

- Nepal has invited many global leaders for the event along with leaders belonging to all SAARC member countries (including India and Pakistan).

- Thus, it provides an opportunity to break the ice between India and Pakistan. It also gives a chance to revive the SAARC forum, which has been unable to meet formally during the last four years because of the negative India-Pakistan relations.

- Hence Nepal is optimistic that this could act as an alternative way to revive the regional formation (SAARC), since this initiative helps to discuss measures informally in order to develop cooperation between the Member Countries.

3. European Parliament

Context:

- The EU Parliament is taking steps to debate and vote on a resolution asking India to repeal the Citizenship Amendment Act. The Indian government, on its part, says the CAA is an internal Indian matter and a law adopted through democratic means.

The European Union has Seven Institutions:

1. The European Parliament,
2. The Council of the European Union,
3. The European Commission,
4. The European Council,
5. The European Central Bank,
6. The Court of Justice of the European Union
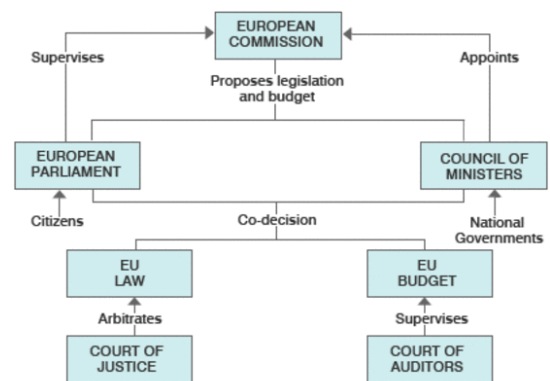7. The European Court of Auditors.

European Parliament:

- The European Parliament is an important forum for political debate and decision-making at the EU level.
- It is the EU's law-making body, and shares its power with the EU Council.
- It is directly elected by EU voters every 5 years.
- The European Parliament allows the citizens of the EU to participate directly in European political affairs.

What does the Parliament do?

- **The Parliament has 3 Main Roles:**
- **Legislative :**
  - ✓ Passing EU laws, together with the Council of the EU, based on European Commission proposals
  - ✓ Deciding on international agreements
  - ✓ Deciding on enlargements
  - ✓ Reviewing the Commission's work programme and asking it to propose legislation.
- **Supervisory -**
  - ✓ Democratic scrutiny of all EU institutions
  - ✓ Electing the Commission President and approving the Commission as a body. Possibility of voting a motion of censure, obliging the Commission to resign

- ✓ Granting discharge, i.e. approving the way EU budgets have been spent
- ✓ Examining citizens' petitions and setting up inquiries
- ✓ Discussing monetary policy with the European Central Bank
- ✓ Questioning Commission and Council
- ✓ Election observations
- **Budgetary:**
  - ✓ Establishing the EU budget, together with the Council
  - ✓ Approving the EU's long-term budget, the "Multiannual Financial Framework"

4. Israel-Palestine

Context:

- Recently, the U.S. President unveiled the 'West Asia peace plan', which gives the Israelis - an expansive state with Jerusalem as its "undivided capital" and tight security control over a future Palestinian state. With his plan, Mr. Trump is actually pushing to revive the stalled two-state talks between the Israelis and the Palestinians.

What is the Israel-Palestine Conflict all about?

- **West Bank & Gaza Strip**
  - ✓ The West Bank is located to the west of the Jordan River. It is a landlocked territory, bordered by Jordan to the east and Israel to the south, west and north.
  - ✓ The Gaza Strip, on the other hand, is a small boot-shaped territory along the Mediterranean coast between Egypt and Israel.
- **Creation of Israel and Palestine:**
  - ✓ After World War I, both West Bank and the Gaza Strip became part of British-mandated Palestine. But by the end of World War II, there was a strong demand from Jews fleeing Nazi Europe for a homeland within Palestine, an Arab-dominated region.
  - ✓ It also had to do with Jerusalem, considered a holy city by the Jews, which was inside the British-mandated Palestine.
  - ✓ Jerusalem has been at the centre of a religious dispute between the Arabs and Jews for centuries.
  - ✓ When the British mandate ended in 1947, the United Nations (UN) proposed an Arab-Jewish partition of Palestine — between Palestine and the new state of Israel.

- ✓ This partition plan mandated 53 per cent of the land to the Jewish-majority state (Israel) and 47 per cent to the Palestinian-majority state (Palestine).
- ✓ But the idea of creating a new-Jewish majority state didn't bode well for the Arab countries in the Middle East.
- ✓ Jewish paramilitary groups, however, formed the state of Israel by force in 1948.

- This prompted a deadly war with its Arab neighbours — Egypt, Iraq, Lebanon, Syria, and Jordan in 1948. This was the first Arab-Israeli war.
- Israel won this war and ended up occupying more land than previously envisaged in the 1947 UN partition plan.
- By the end of the war in 1949, Israel had taken up 78 per cent of the historical Palestine.
- Palestinian territory shrank to 22 per cent of what it had earlier been.
- Meanwhile, the West Bank and East Jerusalem came under Jordan's rule while West Jerusalem went to Israel. The Gaza Strip was under Egyptian military rule after the 1949 war.

Six-Day War of 1967:

- In 1967, the Arab countries again refused to recognise Israel as a state, which led to another war — known as the Six-Day War.
- Israel won this war too and occupied even more parts of Palestine.
- The West Bank, the Gaza Strip and East Jerusalem — which houses the holy Old City — came under Israel's control. It also occupied Syrian Golan Heights and Egypt's Sinai Peninsula.

- With the exception of the Sinai Peninsula, all other parts remain occupied by Israel till date. Since 1967, a large part of the Palestinian population had been living under Israeli-occupied territories in both West Bank and the Gaza Strip.

- Also, post-1967, Israel started to build settlements for its Jewish community in the newly-occupied Palestinian territories, including in the West Bank and Gaza Strip.

Where Things Stand Now?

- Both the West Bank and Gaza Strip are home to a large number of Palestinian populations.

- Following the Oslo Accords between the Israeli government and the Palestine Liberation Organization (PLO) during the 1990s, part of the West Bank came under the control of the Palestinian Authority.

- With varying levels of autonomy, the Palestinian Authority controls close to 40 per cent of West Bank today, while the rest is controlled by Israel.

- It is in the West Bank that 160-odd Israeli settlements and outposts now exist.

- The Gaza Strip, densely populated with Palestinians, had been under Israeli occupation since 1967, until Israel decided to "disengage" from the territory in 2005.

- A couple of years later in 2007, Hamas, an anti-Israel military group, took over Gaza Strip. The militia group is often involved in violent clashes with the Israeli Defence Forces.

- While Palestine has staked claim to both territories — West Bank and Gaza Strip — Israel's objective has been to keep expanding Jewish settlements in these regions.

- There are approximately 2 million Palestinians in the Gaza Strip and 3 million in the West Bank, according to the Palestinian Authority's Population Registry.

What's the New Plan?

- The Trump plan seeks to address most of the contentious issues in the conflict.

- It takes note of issues such as the border of Israel, status of Palestinian refugees, Jewish settlements on the West Bank, land swap between Israel and Palestine, Israel's security concerns and the status of the city of Jerusalem.

- However, the solutions Mr. Trump has proposed to almost all of these issues favour the Israeli positions. For example, Israel would be allowed to annex the Jewish settlements on the West Bank as well as the Jordan Valley.

- The Palestinian refugees, who were forced out from their homes during the 1948 Arab-Israeli war that followed the declaration of the state of Israel in the historic Palestine, would not be allowed to return. They could move to the future Palestinian state, be integrated into the host countries or settled in other regional countries.

India's Stand: From the Past:

- India was one of the few countries to oppose the UN's partition plan in November 1947, echoing its own experience during independence a Few Months Earlier.

- In the decades that followed, the Indian political leadership actively supported the Palestinian cause and withheld full diplomatic relations with Israel.

- India recognised Israel in 1950 but it is also the first non-Arab country to recognise Palestine Liberation Organisation (PLO) as the sole representative of the Palestinian. India is also one of the first countries to recognise the statehood of Palestine in 1988.

- In 2014, India favoured UNHRC's resolution to probe Israel's human rights violations in Gaza. Despite supporting the probe, India abstained from voting against Israel in UNHRC IN 2015. As a part of Link West Policy, India has de-hyphenated its relationship with Israel and Palestine in 2018 to treat both the countries mutually independent and exclusive.

- In June 2019, India voted in favour of a decision introduced by Israel in the UN Economic and Social Council (ECOSOC) that objected to granting consultative status to a Palestinian non-governmental organization

- So far India has tried to maintain the image of its historical moral supporter for Palestinian self-determination, and at the same time to engage in the military, economic, and other strategic relations with Israel.
  - ✓ The aim of this plan was to bring peace to one of the most troubled parts in the world. But it seems to have left the two sides as divided as they have been for more than 100 years.

5. Public Health Emergency of International Concern

Why in News?

- Recently, The World Health Organization (WHO) has announced that the Wuhan Corona-virus does not yet constitute a "Public Health Emergency of International Concern (PHEIC)".

What is "Public Health Emergency of International Concern"?

- A PHEIC is defined in the **International Health Regulations (IHR, 2005)** as, "an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response".

- **This Definition Implies a Situation that is:**

1. Serious, sudden, unusual or unexpected;
2. Carries implications for public health beyond the affected State's national border; and
3. May require immediate international action.

- The declaration of PHEIC would lead to boosting public health measures, funding and resources to prevent and reduce global spread. It could include recommendations on trade and travel, although the WHO generally tries to avoid disruptive trade restrictions.
- The Emergency Committee, made up of international experts, provide technical advice to the WHO Director-General in the context of a PHEIC. The WHO has declared five global emergencies in the past decade, including the Ebola epidemic.

About "The International Health Regulations (2005)":

- IHR (2005), represents a binding international legal agreement involving 196 countries across the globe, including all the Member States of the WHO.
- Their aim is to help the international community prevent and respond to acute public health risks that have the potential to cross borders and threaten people worldwide.

6.1 INTERNATIONAL RELATIONS SNIPPETS

1. Oslo Accords

Why in News:

- Recently, Palestine has threatened to withdraw from key provisions of the Oslo Accords if the US announces its Middle East Peace Plan.

About Oslo Accords:

- It was a landmark moment in the pursuit of peace in the Middle East.
- It is a series of agreements between Israel and the Palestinians signed in the **1990s**.
- Actually a set of two separate agreements signed by the government of Israel and the leadership of the **Palestine Liberation Organization (PLO)**—the militant organization established in **1964** to create a Palestinian state.
- Oslo I (**1993**) is formally known as the **Declaration of Principles (DOP)**. The pact established a timetable for the Middle East peace process.
- It planned for an interim Palestinian government in Gaza and Jericho in the West Bank.
- Oslo II is officially called the **Israeli-Palestinian Interim Agreement** on the West Bank and Gaza (**1995**), expanded on Oslo I.
- It included provisions for the complete withdrawal of Israeli troops from six West Bank cities and about 450 towns.

- The pact also set a timetable for elections for the Palestinian Legislative Council.
- The interim pact was only supposed to last five years while a permanent agreement was finalised but it has tacitly been rolled over for more than Two Decades.

2. Trump's Middle East Plan

Why in News?

- President Donald Trump's **Middle East plan**, Peace to Prosperity: A Vision to Improve the Lives of the Palestinian and Israeli People was recently released.

About:

- Both Israel and the Palestinians make non-negotiable claims over Jerusalem. The plan says **Jerusalem will not be divided**, and it will **remain "the sovereign capital of the State of Israel".**
- The capital of Palestine can occupy far-flung eastern neighbourhood's lying beyond "the existing security barrier", which can be renamed **Al Quds, the Arabic name for Jerusalem.**
- Israel does not have to dismantle any of its illegal settlements in the West Bank.
- To the Palestinians, the deal offers the possibility of a US-recognised quasi sovereign state that will not, however, have a standing army; they will also have to give up violent resistance to Israel, and ensure the disbandment of Hamas, which governs Gaza.